



Universitat Ramon Lull

DOCTORAL THESIS

Title **OPENING UP INNOVATION IN SERVICES: ABSORPTIVE
CAPACITY IN RADICAL AND INCREMENTAL SERVICE
INNOVATION**

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1 Introduction

1.1 Context and Background of Research¹

In the present economic environment, companies are forced to establish sustainable competitive advantages in order to be able to excel in the global market place. Successful innovations have been broadly considered a vital foundation for the creation of competitive advantages. Innovation drives customer acquisition and growth, margin enhancement, and customer loyalty. Whenever organisations lack this crucial driving force, the only way for them to survive in the market often entails competing at low prices, with the consequence of limited margins and fewer opportunities for future growth (Goffin and Mitchell, 2005). However, although the importance of innovation is clear, how to achieve it remains a difficult question (Pavitt, 2006).

The main focus of innovation research has been primarily concerned with innovations related to technological product development in manufacturing (Spohrer, 2008; Miles, 2006; Hauser et al., 2006; DeVries, 2006). Little research has been done related to the innovation activities inherent in the development of new services (Nijssen et al., 2006; Drejer, 2004; Adams et al., 2006), which has resulted in the fact that “current theory and understanding of the strategies and tactics for developing new services is inadequate.” (Menor and Roth, 2007: 825) This has been due to the dominant perception in management research that services are “laggards”, which, if at all, adopt innovations from their suppliers (Pavitt, 1984). Adam Smith (1776: 330) himself once noted, “The labour of the menial servant..... does not fix or realize itself in any particular subject or vendible commodity. His services generally perish in the very instant of their performance, and seldom leave any trace or value behind them.....”. This dominant perception of innovation in services might be one factor for explaining the phenomenon that, for example, in financial services, the success rate of new services “hovers around 3%” (Menor and Roth, 2007: 826).

Notwithstanding this seemingly still existing perception, research has started to investigate how innovation in services can be adequately managed, and at present the study of new service

¹ Parts of this chapter have been published in the Journal of Service Management (Droege, Hildebrand & Heras, 2009), and have been presented in scientific conferences (EURAM 2009, Academy of Management 2009, EGOS 2009, Frontiers in Services 2009 & Servsig 2008). Two best conference papers (Servsig 2008 & EURAM Track Innovation 2009) were achieved. For the publication in the Journal of Service Management, the “Highly Commended Paper Award” was awarded by EMERALD publishing in 2010.

development (NSD) has emerged to an important research field in innovation and service operations management literature (Spohrer, 2008; Miles, 2006; Menor and Roth, 2007).

Within the existing body of research on NSD, much effort has already been invested in revealing what factors are needed to successfully develop new services (Froehle, Roth, 2007; Nijssen et al., 2006).

However, many of these studies neglected to consider that the drivers for success may differ depending on the degree of newness of the underlying service (Menor et al., 2002; DeBrentani, 2001). Differentiating between incremental and radical innovation is crucial, as both types are highly important, yet different in their nature. Incremental new service development is needed to further refine existing services in order to increase their efficiency and thus profitability, while radical new service development opens up new revenue streams by redefining existing markets (Siguaw et al., 2006). Hence, it is crucial for service organizations to be capable of developing both incremental and radical new services. Recently, DeBrentani (2001), Avlonitis et al. (2001) or Oke (2007) provided first insights that organizations need to establish different organizational settings depending on whether they are improving existing services (incremental NSD) or developing really new services (radical NSD)².

Where the understanding of incremental and radical service innovation is concerned, what remained blurred are the ways these projects differ regarding their external orientation outside the firm (Lane et al., 2006). This is surprising, as both practitioners and academics have already illuminated that firms were moving away from a closed innovation model in which all innovation-related activities were performed by internal experts to a more open innovation model which acknowledges that firms can greatly benefit from already existing technology and knowledge outside their own firm's boundaries (Fasnacht, 2009). This recent approach to involve external actors in the internal innovation efforts extends from involving customers to collaborating with technology experts in order to develop new products and services on the basis of latest technology and customer preferences (Chesbrough, 2006). In fact, recent changes in the way people are communicating with each other has allowed for a facilitated exchange of ideas and feedback between organizations and individual customers as well. Also regarding technology access, due to the globalization of the market place, organizations find it easier to reach out for novel technology even if it is located at a

² Improved services and really new services are used *interchangeably* with the expressions incremental and radical new services

distant location (Chesbrough, 2006). In doing so, organizations can benefit from the expertise of leading specialists without having to employ them inside the firm's boundaries, likewise increasing the flexibility with which firms can pursue innovation. In addition, through reaching out to externally located knowledge, firms can avoid "reinventing the wheel" and can instead concentrate on value added innovation activities (Chesbrough, Vanhaverbeke & West, 2006).

However, in order to move from closed to open innovation, firms may find themselves having to struggle. In fact, opening up a firm's innovation activities is likely to necessitate the commitment of considerable internal resources. As research on organizational learning has revealed, firms need to set an internal capacity in place in order to become capable of identifying, acquiring and applying externally available information to their innovation activities (Cohen & Levinthal, 1990). There are several reasons for this at first sight potentially counterintuitive approach that firms need to invest in their internal knowledge base, even though they want to reach out and benefit from external knowledge. Firstly, firms without internal expertise will be more likely not to recognize important changes and novelties in fields relevant to their business and hence may fail to react quickly. Ultimately, this may reduce a firm's competitiveness, as quick responses to novel technologies and / or customer needs are crucial in order to innovate successfully (Menor & Roth, 2007). Secondly, if firms are not prepared for external learning, they may struggle at understanding and integrating the acquired information in-house. For such integration, they need to maintain internal expert departments which collaborate with each other in order to dissect any incoming information inflow, regardless of whether it is related to the market of technical domains, and need to translate this novel information to other members of the organization so that the novel information can be exploited, e.g. in service development activities (Cohen & Levinthal, 1990; Todorova & Durisin, 2007).

Hence, as indicated by these exemplary consequences of a lack of internal capacities to learn from external information, such an absorptive capacity (ACAP) is crucial, particularly as regards the ability of organizations to innovate. Research has already provided some evidence that a firm which has invested in its internal absorptive capacity, also performs better in developing innovative new products / services (Lichtenthaler, 2009).

While research is conducted in relation to a firm's absorptive capacity, the organizational factors for achieving such ability for external learning still constitute a gap in innovation research (Lane et al., 2006), as many scholars have focused overly on the amount of internally available knowledge as a

proxy for a firm's ability to absorb external information. However, this perspective has led to a reification of research on absorptive capacity, as an absorptive capacity constitutes more than the mere internally available knowledge (Easterby-Smith et al., 2008; Lane et al., 2006).

Recently, first evidence has emerged indicating that absorptive capacity research would benefit from more process-oriented investigation which would take into account organizational elements of this concept. Based on Cohen & Levinthal's seminal paper (1990) in which a threefold process, including the stages recognizing the value of external information, assimilating it, and applying it to commercial ends, had been suggested, subsequent research has revised this basic model. Zahra & George (2002) divided the process into two parts: potential absorptive capacity, and realized absorptive capacity. While, according to the authors, potential ACAP comprises exploratory activities via the acquisition and assimilation of external information, realized absorptive capacity is directed at transforming and applying the external information and hence rather concerns exploitative activities.

Yet, this reconceptualization has also been challenged. Conceptual work on ACAP has started a debate on whether absorption processes would not differ depending on the nature of the external information needed. Based on this caveat, most recently a process model of ACAP has been proposed in literature (Todorova & Durisin, 2007) which takes such a contingency into consideration and proposes the process phases of recognizing, acquiring, assimilating, transforming, and exploiting. However, while five process phases were proposed, only four would operate in a concrete instance of absorption. Depending on the familiarity of the organization with the acquired external information, either an assimilation of the external information or a transformation of the internal knowledge base would need to take place. In this line of research, it is argued that too distant external information cannot be directly understood by existing sets of expertise inside the organization. Rather, the organization would need to transform its own knowledge base in order to create expertise areas which could understand such distant novel external information (Todorova & Durisin, 2007).

However, as the latter model - due to its recentness - has not received much attention in empirical research so far, the current perception of the ACAP process seems to be limited to simple process models, and not adapted to the specific context in which they are operated.

Aggravating this even more, existing models of absorptive capacity have predominantly been researched in formal R&D contexts, which do not share many similarities with the service innovation context. In fact, much research on ACAP focuses on patents or intellectual property rights in general, rooted in Cohen & Levinthal's (1990) initial empirical study of absorptive capacity measured by the number of patents filed by an organization.

In services, neither formal R&D nor patents exist (Fasnacht, 2009), making a transfer of existing research on ACAP to the service innovation context difficult. Driven by this awareness of the lack of understanding of ACAP in these domains, recent articles have called for more studies into this sector in order to illuminate the applicability of current theory on ACAP in non-technological contexts, such as the service industries (Lane et al., 2006).

Induced by this lack of understanding, this thesis endeavors to provide answers relating to how the process of absorbing external information unfolds during service innovation. By so doing, both the stages as well as the dynamic interplay between the same are to be taken into consideration. In particular, taking a dynamic perspective is regarded as offering additional insights. This is due to the fact that current research has adhered to static process models, thus omitting to study the iterations and interplays to be expected with a process that is tightly linked to the innovation activities of a firm. Furthermore, as the driving and enabling factors for the absorption process have not been extensively studied either (Lane et al., 2006), this study will provide additional insights regarding the facilitators and inhibitors of the absorption process. In the process, one of the crucial enablers for innovation (Lichtenthaler, 2009) is to be researched which provides both academics and practitioners with valuable insights as to how the management of innovation in services can be improved.

1.2 Focus of Research

1.2.1 Problem Statement

In the current environment, organizations have moved from closed to more open innovation approaches (Chesbrough, 2006). However, this change in innovation practices necessitates a professional approach towards the successful identification, acquisition, integration, and application of external information. This need to learn from external sources during innovation is highly important for service organizations as well, since new services should take advantage of both in-depth customer understanding and incorporation of the latest technological advancements

(Fasnacht, 2009). Due to this practical need and because of the lack of research in service innovation contexts on the ability of a firm to absorb external information (Lane et al., 2006), it is important to understand the absorption of external information during radical and incremental service innovation.

1.2.2 Purpose of Research

The purpose of this research was to provide an in-depth study of the process for absorbing external information during service innovation projects. It was analyzed how this external learning process unfolded during incremental and radical innovation projects, as no direct comparison of absorption activities in these two different innovation types had previously been reported. By so doing, the process stages and their iterations and interrelations were investigated in order to provide a rich understanding of the phenomenon and in order to facilitate an in-depth understanding. Further, as the absorption process operated in specific organizational and industrial contexts, a secondary purpose was to understand how the absorption process was shaped by potential facilitators and inhibitors. With this research purpose, I am making a contribution towards filling in significant gaps in our theoretical and practical understanding of external learning and innovation in organizations.

1.2.3 Research Questions

In order to accomplish the purpose of this study, the main objectives of the research were guided by the overarching research question, namely:

“How does the absorption of external information unfold during radical and incremental service innovation projects?”

This overarching research question was further detailed by adding three sub-research questions which focus the research objectives more specifically and provide the opportunity to subdivide the contributions of this research into three main areas:

Sub-question 1a : “What are the absorption process phases for incremental and radical service innovation and how do they develop?”

Sub-question 1b: “How are the absorption process and the service innovation process related to each other?”

Sub-question 2: “Which inhibitors and facilitators for the absorption activities can be observed in incremental and radical service innovation?”

By providing answers to the above stated overarching- and sub-research questions, it is possible to provide a detailed, in-depth description and analysis of a central element in firms' innovation activities. Furthermore, by enhancing the understanding of both the process and the inhibitors and facilitators operating in its context, a holistic understanding of the absorption activities during radical and incremental innovation emerges. As contextualized analyses of the absorption processes have only rarely been made available in literature (Easterby-Smith et al., 2008), especially qualitative research was best suited for responding to these questions.

1.2.4 Relevance and Contribution of Research

The principal relevance of this research was to provide, as one of the first studies, an in-depth understanding of the absorption process within radical and incremental service innovation. This insight contributes to research on several dimensions.

With the here presented answers to the raised research questions, findings on how the ACAP concept was applied within concrete service innovation projects provide an extension of the literature on absorptive capacity to an - up to now rather neglected - empirical setting. In fact, authors have started to note that although certain industries, such as biotechnology or pharmaceutical companies, have already been extensively studied, insight into how firms in service industries learn from external sources has remained under-researched (Santoro, Bierly & Gopalakrishnan, 2007; Lane et al., 2006).

In addition, due to the fact that many of the existing process models remained conceptual without subsequent empirical analysis, the identification of the ACAP process within the observed service

innovation projects allows for a first empirical insight into the nature of the ACAP process over time. While current ACAP research has focused predominantly on the absorption of technical information, the dual focus on both market and technical knowledge chosen here adds new insight to current ACAP understanding. Due to the interrelation and beneficial interaction of the absorption of technical and market knowledge, a new driver for successful absorption and, in consequence, for successful innovation has been presented. Moreover, the study of the absorption process over time adds to the currently mostly static examples a dynamic process model which takes the multiple iterations and parallel pursuit of the single absorption phases into consideration. In so doing, the beneficial effect of such a parallel and iterative design of the process constitutes an important contribution to current research.

Present ACAP studies, viewed in an innovation context, have to date been conducted in relation to incremental innovations (Lane et al., 2006). In consequence, two additional contributions to ACAP literature have been feasible. Firstly, an ACAP process model for radical innovation has been presented and, secondly, a comparison of absorption activities in both incremental and radical innovation. As existing studies in either of these two areas are scarce, this study adds several additional insights to current literature. As the ACAP process has been studied in the context of radical and incremental innovation, not only distinct process models could be identified for these two innovation types, but also the relation of the absorption process with the general innovation process crystallized. It was found that both processes optimally worked when pursued in a parallel fashion, where no lagging of either one process was present. A lagging of the ACAP process behind the general innovation process hampered overall innovation success.

Moreover, the identified process model was studied by taking facilitating and inhibiting factors inside and outside the respective innovating organization into consideration. Among others it was identified that in radical innovations a strong mindset for accepting external information has to be in place in order to facilitate the overall absorption process. The generally weak intellectual property rights in services inhibited absorption during both incremental and radical innovation, in case the service characteristics were perceived as being easy to imitate by the banks' competitors. This was due to the fact that this perception led to less willingness to perform market testing, resulting in reduced levels of available customer information.

Finally, as absorptive capacity is regarded as an organizational learning activity (Lane et al., 2006), this study contributes to the general lack of organizational learning research in service innovation

literature (Stevens & Dimitriadis, 2004; Sundbo, 2000). Since this organizational learning process has been studied via a qualitative research methodology, additional variance to the research strategies applied in ACAP literature has been created with this study. According to Easterby-Smith et al. (2008), ACAP literature has so far been characterized by an excessive deployment of quantitative methodologies which, according to these authors, have limited the level of understanding of the whole concept (Easterby-Smith et al., 2008).

Additional contributions, besides the core interest of this thesis to illuminate the external learning processes during service innovation, have been to add further evidence on the phenomenon of innovation in service industries to the existing body of literature. As will be further discussed in subsequent parts, little research has been done related to the innovation activities inherent in the development of new services (Nijssen et al., 2006; Drejer, 2004; Adams et al., 2006), which has resulted in the fact that “current theory and understanding of the strategies and tactics for developing new services is inadequate.” (Menor and Roth, 2007: 825)

Further evidence has been provided for the debate on whether service and product innovation need to be managed in different ways. In current research, several schools of thought co-exist which support either a “demarcation” perspective, i.e. the conceptualization of service innovation as being distinct from product innovation, or the synthesis perspective. Researchers subscribing to the latter perspective rather argue in favour of the similarities of service and product innovation research. The results of this study support the “synthesis” school of thought. Since the process model that has emerged showed similarities and considerable resemblance to the conceptual, though not yet validated, process model of Todorova & Durisin (2007), first evidence has been provided that the absorption process may be similar during product and service innovation. This is due to the fact that the model by Todorova & Durisin (2007) is an elaboration of the basic model by Cohen & Levinthal (1990) and Zahra & George (2002) which have been already successfully applied in the product innovation context. Hence, with this research, the “demarcation” school of thought, i.e. the perspective that service innovation would be incompatible to product innovation, has not been supported. Besides these contributions, also first accounts on Open Innovation Management (Chesbrough, 2006) and ambidextrous organization (O’Reilly & Tushman, 1996) in a service context have become possible with the research presented here.

1.2.5 Structure of the Thesis

The structure of this thesis is as follows: Following an introductory part outlining the purpose of the study, its objectives and contribution in brief, a review of the literature is presented in which the current states of both the service innovation literature and the literature on absorptive capacity literature are presented. After this theoretical foundation, the methodology followed for building the basis for the subsequent single case analyses of the three embedded case studies is outlined. The single case analyses again comprise, for all cases, individual innovation projects which have been reviewed as embedded in the extended context of the organizations. Together with the individual innovation project at BankXY, five innovation projects are analyzed in the single case analyses. The evidence presented in the single case analyses is then compared across cases. Finally, the patterns emerging from the cross case analysis are juxtaposed with current findings from literature, resulting in a presentation of the theoretical contributions of this thesis and practical recommendations to managers. The thesis ends with future research opportunities and concluding remarks.

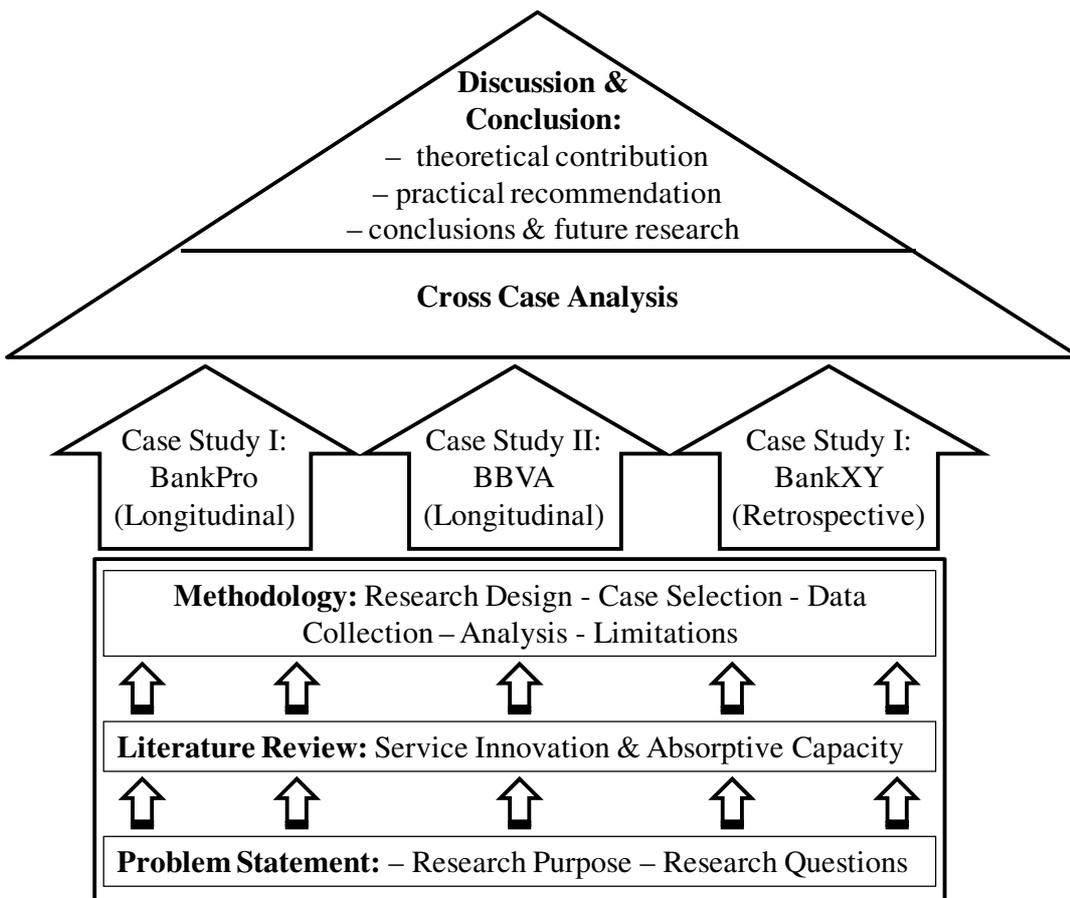


Exhibit 1: Structure of this thesis

2 Literature Review

In the following section, an overview of relevant literature is presented, in order to establish the foundations for the research questions, the subsequent design of the research methodology, data analysis, and discussion. By doing this, firstly, service innovation literature is reviewed, followed by a review of external learning literature focussing on the concept of absorptive capacity.

Where service innovation literature is concerned, an overview of the existing schools of thought, the differences between product and service innovation, types of service innovations, as well as ways for assessing the degree of newness and performance of service innovations are reviewed. With these areas covered, the subsequent research setting of service innovation projects can be analyzed based upon the latest insights on service innovation research, allowing for an adequate evaluation of the various innovation projects covered in the data analysis.

Subsequently, literature on external learning is reviewed by initially providing a basic understanding of organization learning, of which external learning is a subcategory. The external learning literature is then reviewed by focussing on the concept of absorptive capacity, as this concept still lacks scientific attention. Absorptive capacity is reviewed concerning both its process dimension and its facilitating and inhibiting influence factors. It is in this section that the research questions already posed in the introduction are discussed in depth. The following exhibit provides an overview of the structure of this literature review section.

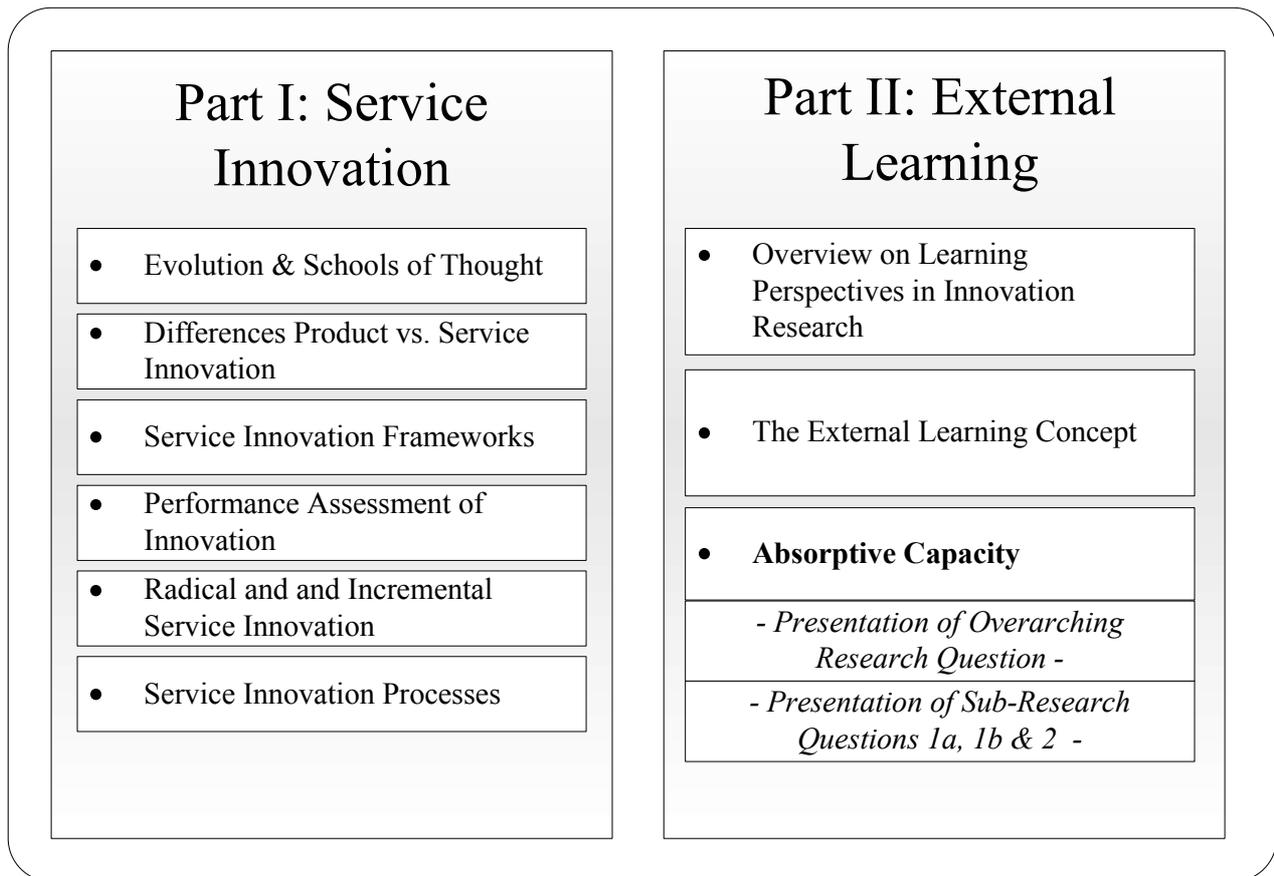


Exhibit 2: Structure of Literature Review

2.1 Service Innovation

2.1.1 Evolution of Service Innovation Literature

In order to understand the still young stream of literature around the concept of service innovation, it is important to take into consideration the different perspectives and angles adopted in current literature. In fact, in present research on service innovation, several schools of thought have emerged over time which are important in order to ascertain how research can contribute to a better understanding of how service innovation can be successfully managed.³

³ Parts of the literature review have been published in: Droege H., D. Hildebrand, and M. Heras. 2009. Innovation in Services: Present Findings and Future Pathways. *Journal of Service Management*, 20(2), which received the “Highly Commented Paper Award” from Emerald (2010), as well as the “Christopher Lovelock Prize” at the SERVSIG Conference, Liverpool (2008). Other parts have been included in conference papers for EURAM (2009) & EGOS (2008 & 2009) and the Academy of Management Annual Meeting (2009)

In an earlier study, Coombs and Miles (2000) presented three schools of thought operating in service innovation research in order to illuminate the differences existing in basic assumptions about service innovation. As this original segmentation has also been applied by other authors (e.g. Drejer, 2004; DeVriess, 2006), a similar segmentation is also used here to present an updated account of the frequency and influence of each school of thought identified in order to reveal which basic assumption on innovation in services takes the lead in current research. In particular, four schools of thought are presented - technologist, assimilation, demarcation, and synthesis - which have also been described as representing different stages in the emergence of a new scientific paradigm from a Kuhnian perspective (Howells, 2006).

Technologist Perspective

Richard Barras' (1986, 1990) reverse product cycle model is perceived by many as marking the beginning of the service innovation research stream (Miles, 2006; Tether and Howells, 2007). Starting with Abernathy and Utterback's product life cycle theory (1978), Barras (1986, 1990) suggests a different pattern for the life cycle in services. The cycle begins with process innovations which subsequently lead to the development of totally new services (Linton and Walsh, 2008), as shown in the following exhibits.

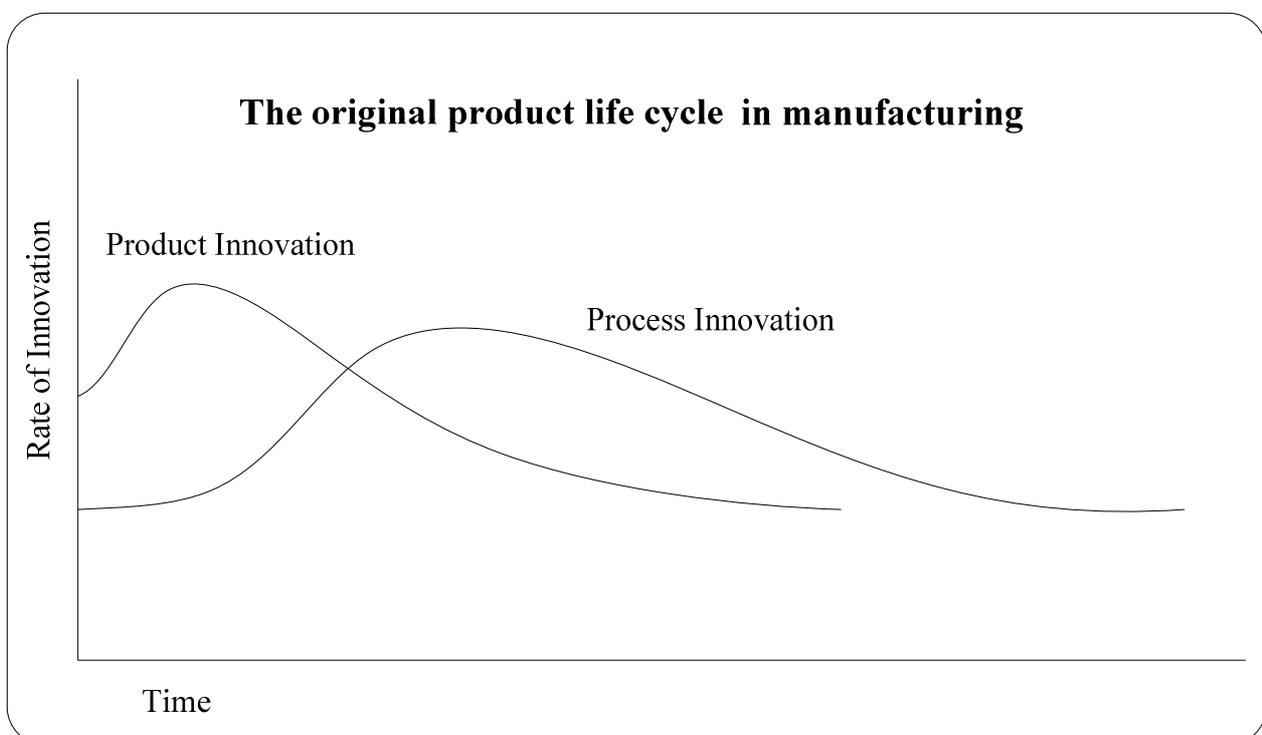


Figure 1: The PLC in manufacturing (adopted from Linton, Walsh, 2007)

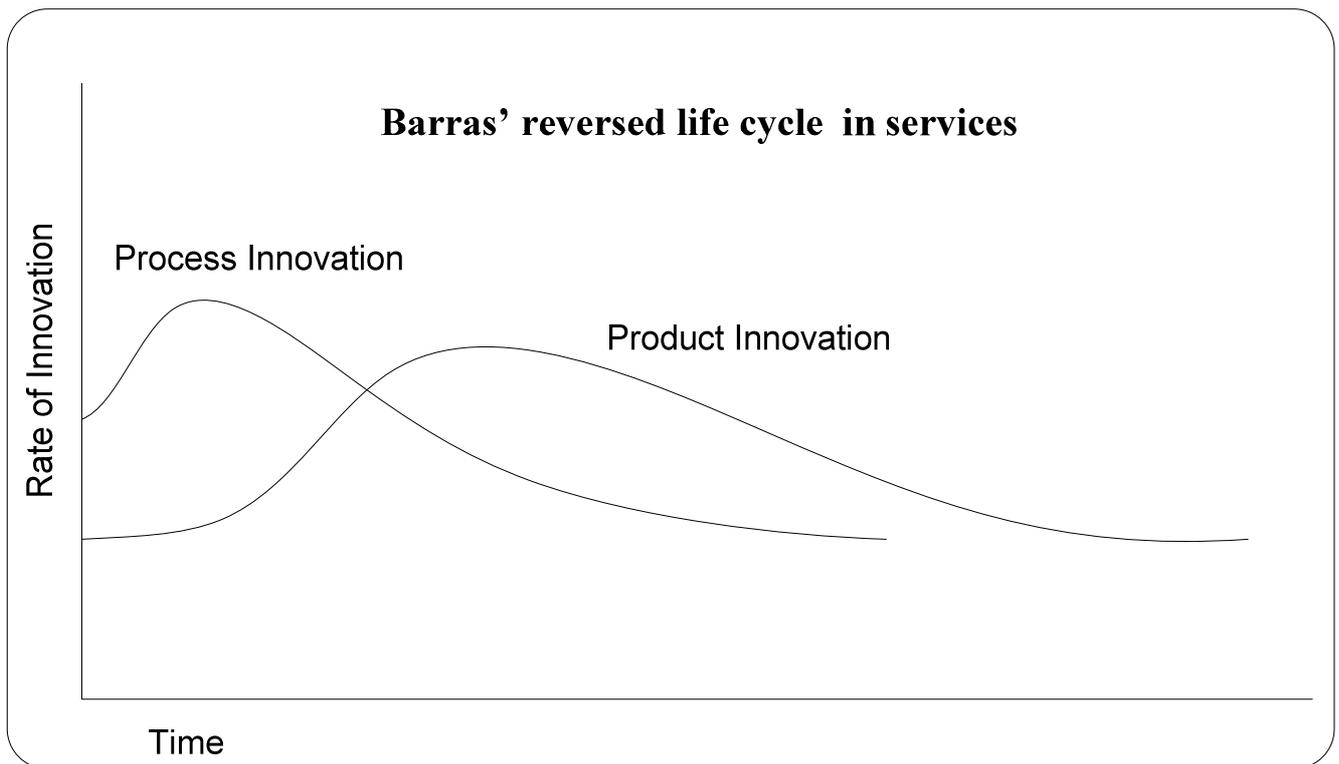


Figure 2: Barras' Reverse PLC in services (Adopted from Linton, Walsh, 2007)

Due to the fact that Barras relates innovation in services to gaining technological competence and progress in information technology in general, several authors have termed his theory a technologist approach (e.g. Gallouj and Weinstein, 1997; Gallouj, 1998; deVries, 2006; Sundbo et al., 2007). Barras' work has frequently been criticized (e.g. Nightingdale, 2003; Dolfsma, 2004; Hipp and Grupp, 2005; Howells, 2006), for example concerning (1) the dominant role which technology plays in the innovation of services, (2) his "one-size-fits-all" assumption (Salter and Tether, 2006: 6), without differentiating between different service types, or (3) the difficult distinction between the product and process parts of services. With regard to the limitations which arise when technology is taken as the only proxy for innovation, Gallouj (2002) argues that service innovations are frequently non-technological, such as a new form of insurance policy, a new restaurant format, or a new area of legal expertise. Critique on similar grounds has also been forthcoming for related studies with technology focus, such as the studies by Pavitt (1984) or Miozzo and Soete (2001) (Sundbo et al., 2007).

Assimilation

In a similar vein, scholars following the so-called “assimilation” approach propose that the theories and concepts developed in manufacturing contexts can easily be transferred to innovation in services (Coombs and Miles, 2000; Drejer, 2004; DeVries, 2006; Nijssen et al., 2006). One example of these studies is the second European Innovation Survey (CIS II), conducted in 1997, which operated with definitions and concepts for manufactured products while asking for services (Howells, 2006). Other researchers within this stream, such as Sirilli and Evangelista (1998), or Hughes and Wood (1999), found that differences between services and manufacturing seemed to be smaller than within the manufacturing sector and the service sector, respectively. However, as their approaches focussed mainly on technological drivers for innovation in services, it has been described as being too limited to thoroughly describe innovation in services (Drejer, 2004). Akamavi (2005) further states that, due to the fact that these studies derive their analytical frameworks from manufacturing to analyse innovation in services, they do not take into account the idiosyncrasies of services.

Demarcation

Demarcation studies constitute a parallel research stream in which scholars emphasise the distinctive features of services which, in turn, make it difficult to transfer knowledge from manufacturing to services. “These differences pertain mainly to the specific characteristics of services, i.e. their intangibility, co-production with customers, simultaneity, heterogeneity and perishability (Fitzsimmons and Fitzsimmons, 2000) that affect the development process of services and make them to a certain degree unique”. (Nijssen et al., 2006: 242) It is interesting to note that some studies, such as Gallouj and Weinstein (1997), are sometimes considered to belong to the demarcation studies and to the synthesis approach reviewed below. Their study, however, explicitly discusses the blurred boundaries between services and manufacturing, and aims at creating a model of innovation that is valid for both products and services. Hence, it is argued that Gallouj and Weinstein (1997) should rather be related to the synthesis stream (reviewed below). By contrast, while more demarcation-oriented studies, such as Gadrey et al. (1995), DenHertog (2000) or Djellal and Gallouj (2001), also remark on the usefulness of their insights for product innovation in manufacturing, they are more focussed on revealing the idiosyncrasies of service innovation activities.

For example, Djellal and Gallouj's study "seeks to contribute to an autonomous concept of innovation in services", (Djellal and Gallouj, 2001: 58) and implements survey research to illuminate the importance of clients and the client interface in the innovation processes, challenges in protecting service innovations, and the interactive character of service innovation in contrast to the classic linear models of innovation. Their results have frequently been quoted to exemplify typical results of demarcation studies (DeVriess, 2006; Howells, 2006). Another study within the demarcation stream of literature is the work by DenHertog (2000). This author takes a conceptual perspective of service innovation by presenting a taxonomy of service innovation patterns and a framework to better understand what parts of services are affected by innovation.

Synthesis

In the synthesis stream, research has focussed more on efforts to bring together innovation in services and manufacturing than on studying both fields separately (Gallouj and Weinstein, 1997; Coombs and Miles, 2000; Nightingdale, 2003; Drejer, 2004; Howells 2006; Nijssen et al., 2006). This is due to the acceptance that studies on service innovation illuminate important elements (e.g. the importance of customer involvement, cf. Sanden et al., 2006) which up to now have been neglected in the study of product innovation in manufacturing (Drejer, 2004). Gallouj and Weinstein (1997) were among the first to propose this avenue for research. In their theory on types and elements of "products", the authors do not distinguish between the product in the realm of services or manufacturing and explicitly offer an integrative approach to the study of innovation in both sectors (although their empirical examples, and also the refined version presented by DeVriess, 2006, are still based solely on service industries). Scholars such as Bitran and Pedrosa (1998), Hollenstein (2003), Hipp and Grupp (2005), deVries (2006), or Froehle and Roth (2007), also apply this emerging trend and derive conclusions which are aimed at the two "sectors", manufacturing and services.

2.1.2 Differences Product vs. Service Innovation

Different perceptions have been put forward with regard to the debate on the similarities and differences between new product and new service development (Hollenstein, 2003). This becomes especially evident when viewing how researchers motivate their studies. Blindenbach-Driessen and Van den Ende (2006), for example, argue that findings on new service and new product development differences are limited, while other authors, such as Dolfsma (2004), Stevens and

Dimitriadis (2004), or Alam (2006), refer to the considerable differences between product and service innovation activities. It was therefore considered necessary to look into the findings in this research field in order to arrive at more exact statements, since the findings from this field are crucial in order to become capable of ascertaining whether models of new product development (NPD) can be meaningfully applied to new service development (NSD), and vice versa. Due to space limitations, each individual publication in this field is not being reviewed separately, instead two tables are provided aggregating the studies identified on similarities and differences between service and product innovation.

Author	Differences: NSD vs. NPD	Unit of Analysis	Industry	Method
Mendonca et al. (2004)	Services cannot be protected via patents	-	-	-
Griffin 1997	Service Innovation takes less time than product innovation Concept generation in the development process is more frequent in NSD than in NPD Development processes are less complex (easier) than in manufactured goods firms NSD reports to the marketing function, rather than to the SBU level.	Organization	Broad variety of manufacturing and service firms	Survey
Johne and Storey (1998)	NSD is, conceptually, more complex than NPD	Literature review	-	-
Froehle et al. (2000)	Cross-functional teams are not related to a higher development speed in NSD, contrary to NPD	New service programs	Health care, financial services, professional services, utilities, hotels, retail, transportation, industrial services, dining/food services, local governments, information systems, media	Survey
DeBrentani (2001); Martin & Horne (1993)	Formal NSD process is less important than in manufacturing	Single services, organization	De Brentani: Broad variety of business services; Martin and Horne: Consulting, information processing, retailing, financial services, hHospitality	Survey
Djellal and Gallouj (2001)	Testing of innovations more difficult for services	Organization	Financial services, consultancy, operational services, hotels, catering, retailing	Survey
Henard and Szymanski (2001)	Higher importance of market synergy, lower importance of structured formal development process, lower importance of cross-functional communication in NSD	Organization	Meta analysis	Meta analysis of several surveys
Hollenstein (2003)	R&D levels are lower in services than in manufacturing	Organization	IT & R&D services, other business services, banking/insurance/financial services, wholesale, transport/telecommunications, retail, hotels, restaurants, real	Survey

			estate, personal services	
Tether (2005)	Manufacturers tend to source new technology through their internal R&D departments while, in service firms, new technology is more often sourced through customers and suppliers or external intellectual property. Manufacturers tend to focus on technological issues and R&D, while services are more likely to emphasize the skills of their workforce.	Organization	Broad variety of manufacturing and service industries	Survey
Hipp and Grupp (2005)	Internal R&D is less important than in NPD, more departments and project teams involved in NSD than in NPD, service innovation more incremental than product innovation	Organization	Wholesale, retail, transport, banking/insurance, EDP/telecommunications, technical services, other business services, other services	Survey
Nijssen et al. (2006)	Willingness to change existing routines is more important in NSD than in NPD, R&D strength is more positively related to developing new services than to developing new products; willingness to give up general organizational dimensions is more positively related to NPD than to NSD	Organization	Trade and repair, hotels and catering, transport, rental services, financial services, other services, construction and building materials, chemicals/rubber, glass, metal, machinery, electrical and optical goods, wood, paper, textiles, others	Survey

Table 1: Identified Similarities/Differences in NSD vs. NPD

	Similarities: NSD vs. NPD	Unit of Analysis	Industry	Method
DeBrentani (1989)	How to measure success, importance of market orientation, a formal new service development process, project synergy, superior service offering	Individual services	Financial services, management services (accounting, consultancy, ...), transportation and communications	Survey
Martin and Horne (1993)	Customer involvement similarly important and present as in NPD	Organization	Consulting, information processing, retailing, financial services, hospitality	Survey
DeBrentani and Ragot (1996)	Formal development process	Individual development projects	Computer and systems consultants, marketing and advertising, management consulting, accounting	Survey
Griffin (1997)	Strategies are important to both innovation in manufacturing and service innovation, leaders in development projects are generally project managers, multi-functional teams are important to both NPD and	Organization	Broad variety of manufacturing and service firms	Survey

	NSD, finding appropriate rewards is similarly difficult in NSD and NPD			
Froehle et al. (2000)	Cross-functional team structures and effectiveness of development efforts, formalized development processes, IT-enabled development process	New service programs	Health care, financial services, professional services, utilities, hotels, retail, transportation, industrial services, dining/food services, local government, information systems, media	Survey
Meyer and DeTore (2001)	Platform-based product development strategies are also applicable to services	New service programs	Re-insurance (insurance for insurance companies)	Case study
Hollenstein (2003)	Level of human resources equally high, similar use of IT	Organization	IT & R&D services, other business services, banking/insurance/financial services, wholesale, transport/telecommunications, retail, hotels, restaurants, real estate, (personnel services)	Survey
Tether (2005)	Innovation patterns exist which are more often found in services than in manufacturing (and vice versa), but these patterns are not unique to services or manufacturing, respectively	Organization	Broad variety of manufacturing and service industries	Survey
Nijssen et al. (2006)	Incremental product and service innovation do not require process innovation; both new products and new services may or may not affect current sales	Organization	Trade and repair, hotels and catering, transport, rental services, financial services, other services, construction and building materials, chemicals/rubber, glass, metal, machinery, electrical and optical goods, wood, paper, textile, others	Survey

Table 2: Identified Similarities/Differences in NSD vs. NPD (continued)

After comparing the findings of the similarities and differences sections with each other, several contradictory or inconsistent findings were identified which are to be briefly discussed. Firstly, several authors found that a formal NSD process was considered to be less important to new service development than to NPD (DeBrentani, 2001; Henard and Szymanski, 2001; Van der Aa and Elfring, 2002). However, some authors also found that formal development processes are important, and actually similarly important to the role that the formal development process plays in NPD (DeBrentani, 1989; DeBrentani and Ragot, 1996; Froehle et al., 2000). The findings concerning the role cross-functional team involvement plays in NSD versus NPD have likewise not yet been consistently determined (Froehle et al., 2000; Henard and Szymanski, 2001). Finally, studies frequently find that R&D is not as much present in NSD as it is in NPD in manufacturing (e.g. Tether, 2005). However, Nijssen et al. (2006) found that R&D is more positively related to innovation success in services than it is in manufacturing. Thus, research in this field has identified

both similarities and differences between the two activities, though some findings contradict each other, which opens up further scope for future empirical studies.

2.1.3 Types of Innovation: Service Innovation Frameworks

A broad variety of concepts was identified during the literature search which typify service innovation and NSD. Unlike innovation in manufacturing, in services it has been difficult to distinguish reliably between the well-known dichotomy of “product/process” innovations (e.g. Haukness, 1998; Djellal and Gallouj, 2001; Gallouj, 2002; Van der Aa and Elfring, 2002; Tether, 2005; Sundbo et al., 2007), although some contrary evidence also exists (Sirilli and Evangelista, 1998; Damanpour and Gopalakrishnan, 2001). As shown in Table I, a broad variety of different terms and concepts has been applied in service innovation research to describe where innovation happens in services, termed innovation dimensions here.

Author	Service Innovation Dimensions	Industry	Type of Study
Gadrey et al. (1995)	Innovation in service products architectural innovations modifications of existing services innovations in processes and organizations for existing services	Consultancy, insurance, electronic information services	Interview study
Gallouj and Weinstein (1997)	Service outcome characteristics Service provider competencies Service provider technology Client competencies	-	Conceptual
Sirilli and Evangelista (1998)	Product innovation Process innovation	Trade and repair, wholesale, retail, hotels and restaurants, transportation, travel, post and telecommunications, banking, insurance, computing and software, R&D, accounting, technical consultancy, advertising, cleaning, security, waste disposal, others	Survey
Den Hertog (2000)	Conceptual innovation Client interface innovation Service delivery innovation / Organizational innovation Technological options	-	Conceptual
Van der Aa and Elfring (2002)	Technological innovation Organisational innovation	Teleshopping, hairstyling, car rentals, home furnishings, exploitation bus shelters, catering, professional cleaning, pharmaceutical wholesaling, engineering,	Case study

		logistics services	
Sundbo (2003)	Product innovation Process innovation Organizational innovation Market innovation	Insurance companies, banks, payment and credit card companies, chains of lawyers, engineering consultancy, cleaning and manual services company, municipal	Case study
Drejer (2004)	External relationship innovation Expertise-field innovation	-	Conceptual
Dolfsma (2004)	Ad-Hoc innovation Organizational innovation	-	Conceptual
Djellal and Gallouj (2005)	Constituent services Mediums or targets of service provision Service characteristics or utilities Achieved or sought: Competencies of the service providers.	Hospitals	Conceptual
DeVries (2006)	Service outcome characteristics Service provider competencies Service provider technology Client competencies Client technology	Insurance, social security administration agencies, information technology service providers, providers of public and in- company educational services, telecom	Case study
Sundbo et al. (2007)	Product innovation Process innovation Market innovation Organizational innovation Technological innovation Widened services	Hotels, restaurants, travel agencies, attractions, transport, etc..	Surveys, qualitative interviews

Table 3: Variety in Innovation Research in Service Innovation Literature

Possibly motivated by this broad variety of different conceptualisations of service innovation, some researchers have started to synthesise innovation in services into distinct frameworks in order to facilitate the analysis of innovations at the organization level. Due to the fact that different frameworks coexist (Gallouj and Weinstein, 1997; DenHertog, 2000), these are to be presented in the following paragraphs.

The theory of innovation in services developed by Gallouj and Weinstein (1997) has been widely discussed in service innovation literature (e.g. Drejer, 2004; Windahl et al., 2004; DeVries, 2006; Tether and Howells, 2007). Their model constitutes an early attempt to bring together research on product innovation and service innovation which contributes to the “synthesising” stream of service innovation literature. According to the authors, service innovation can be found in one or several of the following elements: Service Provider Competencies (new knowledge, new skills), Service Provider Technology (new IT systems, new machines, new procedures), and Client Competencies (e.g. customer provides information on stock-level to supplier) which altogether influence the

output characteristics of a new service. The following exhibit exemplifies this conceptualization of a service:

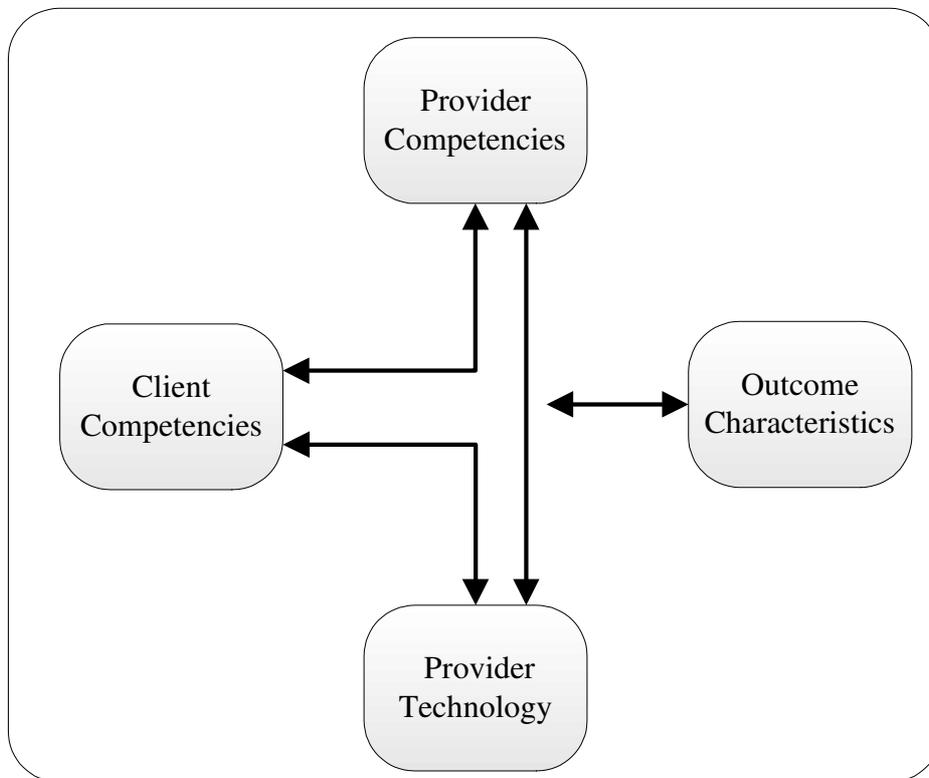


Exhibit 3: Service components (Gallouj & Weinstein, 1997)

Furthermore, Gallouj and Weinstein (1997) introduce six types of innovation which can take place in some or all parts of the service, namely radical innovations, incremental innovations, improvement innovations, combinatory (architectural) innovations, formalization innovations, and ad-hoc innovations (Gallouj and Weinstein, 1997; DeVries, 2006). While many of these types are quite frequently used in innovation literature, ad-hoc innovations constitute a novel concept. “Ad-hoc innovations are defined as the interactive (social) construction of a solution to a particular problem put forward by a client”, (de Vries 2006: 1039). This type of innovation in services is easily omitted in empirical studies, as ad-hoc innovations are hardly ever repeated and formalized into the standard service offering of an organization. However, especially this mode of innovation has subsequently been criticized by scholars such as Drejer (2004), who argued that, due to the non-repeatability of ad-hoc innovations, this is not an innovation in a Schumpeterian sense (Drejer, 2004). However, this view has also been challenged recently, as DeVries (2006) conceptually broadened Gallouj and Weinstein’s original model and tested it in the course of a number of case

studies. He concludes, referring to Drejer (2004), that ad-hoc innovation can in fact be regarded as a valid type of innovation (DeVries, 2006). The following exhibits exemplify these possible types of innovation in services.

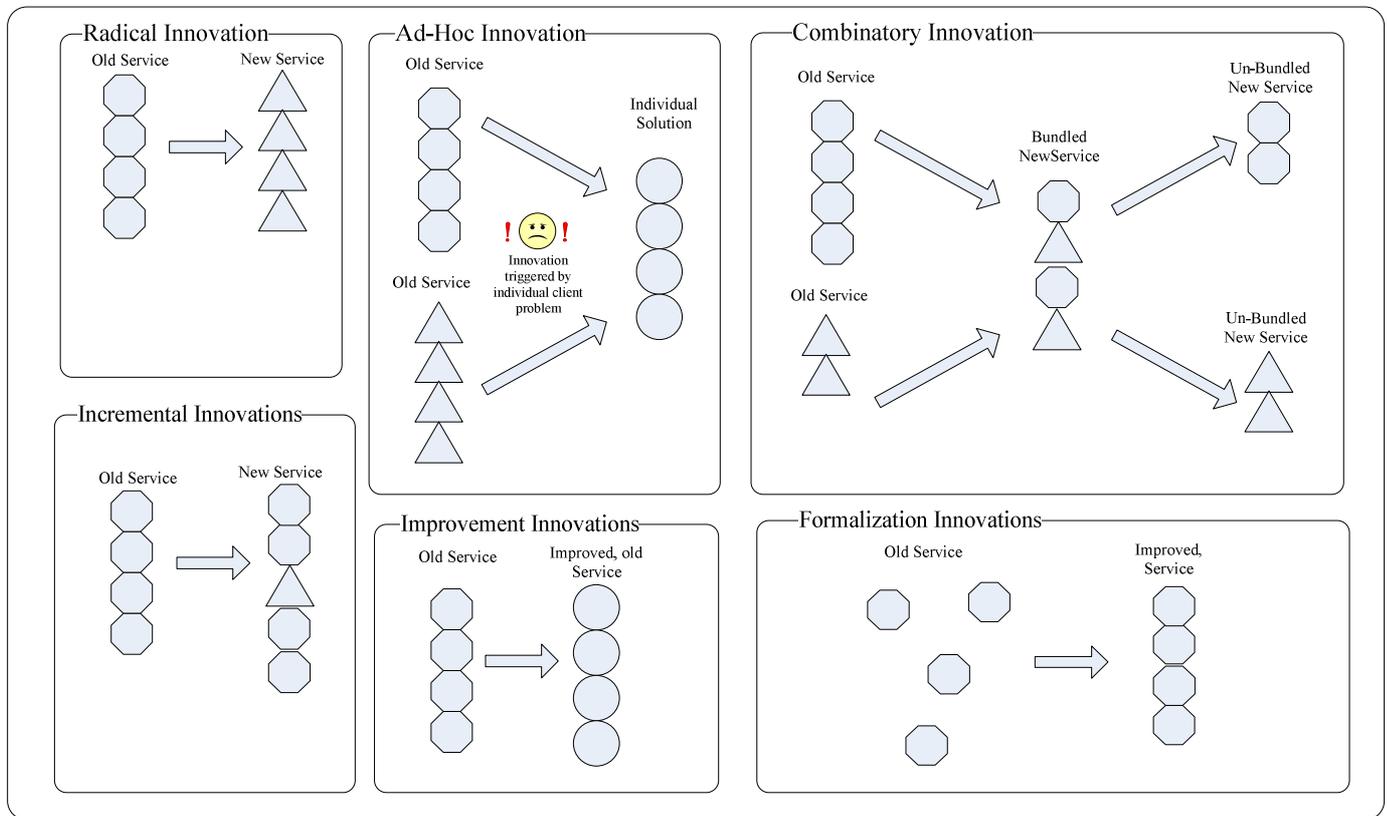


Exhibit 4: Types of Service Innovations (concepts based on Gallouj & Weinstein, 1997)

Related to the seminal framework developed by Gallouj and Weinstein (1997), Djellal and Gallouj (2005) elaborate on an adjusted version for innovation in hospital services. The authors propose four variables which help to locate innovations in hospital services. First, they conceptualise the hospital's output as an aggregate of the sum of constituent services a hospital offers (e.g. catering, administrative services, medical services, shops, recreation, etc.); hence innovation can take place in each individual constituent service. In more detail, each of these individual services is again a representation of a combination of the variables service provider competencies (of individuals or small groups, i.e. education, experience, etc.), service mediums/operations (i.e. material operations, informational operations, methodological operations, contractual/relational operations), and the basic service characteristics or use values of the constituent service (the value which the constituent service provides, such as cleanliness in the case of a constituent service like "cleaning"). In

comparison with the original model by Gallouj and Weinstein (1997), the framework described here only partially resembles the original framework, at most as regards service provider competencies or the concept of the constituent service. In the types of innovations too, Djellal and Gallouj (2005) again partially depart from the initial model (Gallouj and Weinstein, 1997) and instead propose that service innovation in hospitals may be organized as extensive (adding characteristics to the constituent service), regressive (purifying the constituent service), intensive (intensifying specific characteristics of the constituent service) and finally combinatory (i.e. architectural innovation, introducing a new constellation of existing service characteristics such as a new “service package”).

Finally, another approach to bringing some order to the study of service innovation is the “four-dimensional model of service innovation”, developed by DenHertog (2000). DenHertog motivates his approach by arguing that, in services, rather than just changing some details of the final service offering, most of the time it is necessary to engage in many changes within the various parts of the service and its organization in order to innovate in services. This is due to the close interaction of delivery processes and the actual service-offering activities. Thus, DenHertog (2000) proposes mapping innovation in services according to a multidimensional model which takes into account the interrelated nature of innovation in services. He proposes considering four dimensions when analysing innovation, namely the New Service Concept Dimension, New Client Interface Dimension, New Service Delivery System Dimension, and Technological Options Dimension. This conceptualization is shown in the subsequent exhibit.

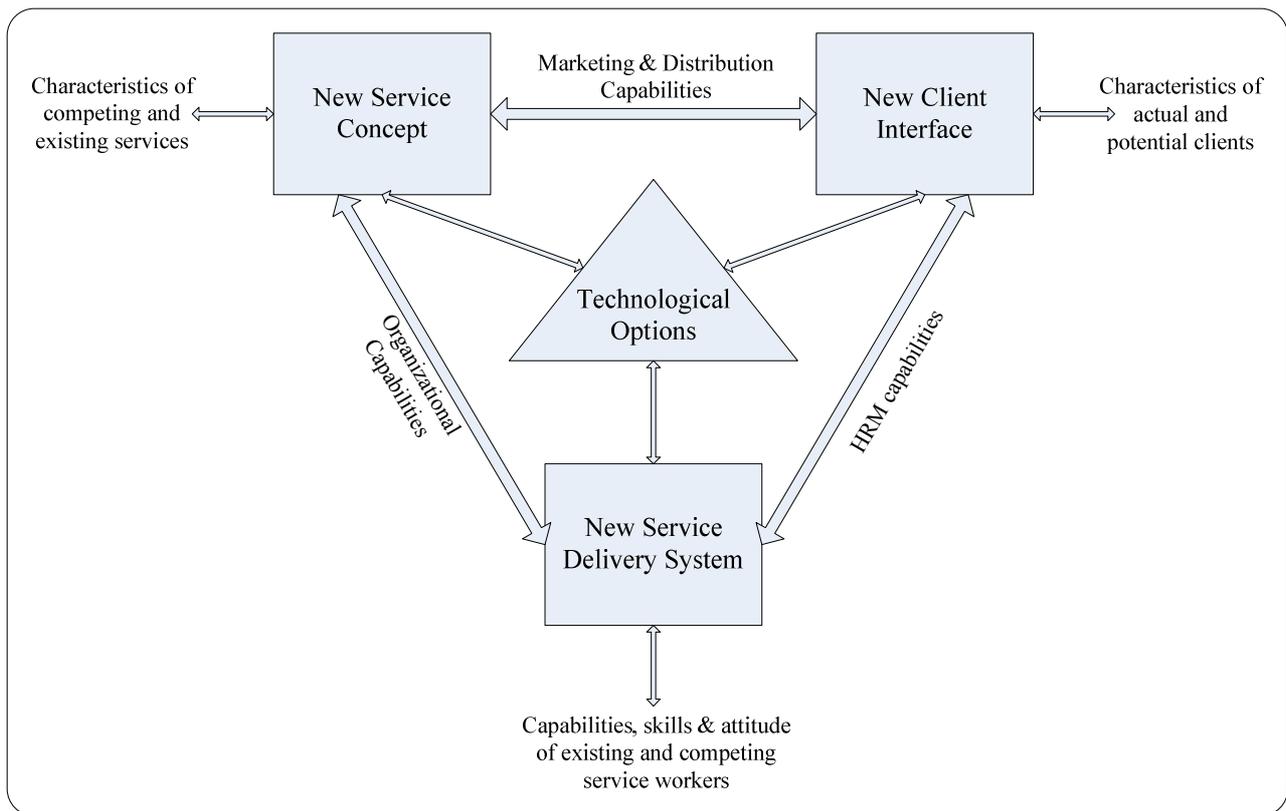


Exhibit 5: A Four Dimensional Model of Service Innovation (DenHertog, 2000, p. 4)

Overall, the studies briefly presented here all start, to a certain extent, at the basic difficulty to apply the classic product/process dichotomy. Indeed, most of the studies in the service innovation arena take a similar viewpoint and argue in favour of an alternative framework. The arguments involved in this research field relate to the notion that a sharp delineation between the product and the process parts of a service is hardly possible (Uchupalanan, 2000; Nightingdale, 2003; Miles, 2008), due to the fact that (1) the service is not an artefact, but a process which develops over time (Gallouj, 2002); that (2) the product/process dichotomy is rather simplistic (Gallouj and Weinstein, 1997); (3) that innovations in the product/service often require changes in the process and vice versa (Gallouj, 1998), or (4) that product and process innovations are considerably intertwined and occur together (Uchupalanan, 2000), among others.

2.1.4 Performance Assessment of Service Innovation

Besides the debate in the constituting elements of a service, and the subsequent discussion on the “types” of innovation in services, the assessment of the performance of service innovation projects is also crucial to the study of service innovation. Various measures for innovation have been

identified in innovation literature. In a thorough literature review on the performance measurement approaches for product and service innovation, Adams et al. (2006) identified several dimensions how innovation management can be evaluated. These authors found an over-reliance on financial measures, which was also identified much earlier in the empirical study by DeBrentani (1989). She identified that “industrial service companies primarily emphasize financial gauges for measuring new service success.” (DeBrentani, 1989: 246) Amongst the most prominently listed were, the market share gained by the new service, the overall profitability of the service, and the superiority of the new service to competitors’ offerings. Yet, in addition to these market performance indicators of innovation success, more development specific evaluations have emerged as well. Adams et al. (2006) also identified that project efficiency constituted a frequently applied indicator for the success or failure of new services. Indeed, as Griffin (1997) already mentioned, first mover advantages of service developers are diminishing because of the shorter lifecycles of new products/services, and due to increasing amounts of direct competitors and rapidly changing environments. Driven by this increased pace of market changes, rapid development becomes an important lever for service firms in order to benefit from their innovations (Griffin, 1997). In addition, previous research has identified that the speed of development, measured in “time against schedule”, positively influenced the overall quality of the innovation as well as customer satisfaction (Adams et al., 2006).

Hence, besides the assessment of types of service innovations, the performance evaluation of new services is also crucial in innovation research. Yet, while market performance indicators are the most prevalent in research, project specific performance measures are also helpful in order to ascertain service innovation success.

2.1.5 Radical and Incremental Service Innovation

In service innovation literature, the study of success factors directly related to specific degrees of radicalness has only emerged in recent years. Several scholars (Avlonitis et al., 2001; DeBrentani, 2001; Menor et al., 2002) argue that this subgroup of innovation studies has not yet progressed as much as the more general accounts on innovation success factors in services did. In principle, studies demarcate incremental new service development from radical new service development through analyzing whether the constituting elements of the new service are totally new to the firm or not, and whether the service is totally new to the market/clients or not (DeBrentani, 2001). This demarcation of incremental and radical innovation is also applied in this study.

Avlonitis et al. (2001) investigated whether different degrees of innovativeness call for different new service development activities by studying NSD process activities, NSD process formality, and cross-functional involvement as independent variables. The authors identified a continuum of six degrees of innovativeness, namely “new to the market services”, “new to the company services”, “new delivery processes”, “service modifications”, “service line extensions”, and “service repositioning”. The study revealed that not all degrees of innovativeness are equally related to a high degree of performance. In fact, Avlonitis et al. (2001) showed that, with regard to financial performance, an inverted U-shaped relationship exists between degree of innovativeness and financial performance. Very high and very low degrees of innovativeness are both relatively less positively related to success, whereas moderately innovative services are more strongly related to high financial performance. Interestingly, with regard to the success factors, they presented evidence that radically new and incremental innovations do not always require totally different antecedents. In fact, both new to the market services (radical innovations) and service line extensions (incremental innovations) showed great similarities in their related success factors.

DeBrentani (2001) also investigated whether different antecedents are necessary in order to excel either at radical or at incremental innovations. Her results show that a number of factors exist which impact differently on the various degrees of innovativeness. Among others, an innovation-encouraging organization culture has been found to be more significantly related to radical innovations than to incremental innovations. However, factors such as an implemented NSD process, or basing the development of new services on detailed knowledge of operating systems, problems and customer needs have been identified, among other things, as being crucial to both incremental and radical innovations. In sum, excelling at incremental innovations and radical innovations has been found to require basically the same success factors, but in several cases in substantially different degrees of presence and intensity.

In another study, Oke (2007) also investigates, inter alia, what kind of differences exist with regard to necessary antecedents for either incremental or radical innovations in a variety of industries, such as finance, telecommunications, transport, and retail. The study involves testing five independent variables, namely innovation strategy, human resource management, creativity and ideas management, selection and portfolio management, and implementation. Oke (2007) shows that these five success factors are only significantly related to radical innovations, while none of these factors - with the exception of creativity and ideas management for “me-too products” - is

significantly related to incremental innovations. Oke (2007) argues that the insignificance of the antecedents for incremental innovations might be due to the fact that organizations do not regard incremental innovations as real innovations, and thus only treat them as an operational activity which does not have to be managed according to rigorous new service development (Oke, 2007).

Finally, Leiponen (2005) conducted a study investigating the impact of different knowledge creation strategies on the innovativeness of professional services. She studied the factors internal cooperation, vertical and horizontal information, technology adoption, incremental learning, and scientific knowledge, and related them to improvements and innovations. According to her findings, some factors have a different influence on either improvements or innovations. The factor vertical and horizontal information is highly important to innovation, whereas the factor internal cooperation is very important in the case of improvements, while vertical and horizontal information is an important factor here as well, but only low in significance. The other factors, namely, technology adoption, incremental learning, and scientific knowledge are not significantly related to either one of the dependent variables (improvement or innovation).

At the same time, the approaches to differentiate between different degrees of newness of service innovation differ considerably. While some researchers rely on single-respondent survey items, based on “dummy variables” (0 or 1), in order to assess whether innovation or improvements have been developed (e.g. Leiponen, 2005), others include more fine-grained assessments (DeBrentani, 2001; Oke, 2007) which take into consideration the degree of newness in the technical characteristics, in customer-interaction, as well as changes in the firm’s competences for becoming capable of selling the new services (Avlonitis et al, 2001; Gallouj & Weinstein, 1997). With these more detailed approaches to assessing innovativeness, more reliable evaluations of radical and incremental innovation have been possible.

While most of these detailed studies on innovativeness do not offer much conceptual rationale for including different dimensions in the assessment of innovativeness, Gallouj & Weinstein (1997) go step-by-step through each service dimension in which change can happen and describe examples of typical changes in different industries. Based on these different ways of assessing service innovations, the latter study can certainly be considered the most detailed approach to evaluating innovativeness (Droege et al, 2009). Interestingly, by characterizing a service as emerging from the three dimensions “provider competences”, “client competences”, and “technological characteristics”, the authors include evaluations of the newness of the service to the organization by

assessing change in technology and provider competences, and, in addition, newness to the market, via assessing the degree of change in the way customers have to use and interact in relation to the new service.

Hence, the model by Gallouj & Weinstein (1997) comprises the dominant approach in innovation research to include both technological and market perspectives in innovation evaluation. “In recent studies, researchers addressing the issue of “really new” versus incremental new products usually view innovativeness in terms of both of these dimensions of newness; that is, newness of the technology and the product’s degree of familiarity or uniqueness in the marketplace ... This is because, in studies of new product success factors, it is a well-accepted paradigm that both the technological and the market perspective must be taken into account.” (DeBrentani, 2001: 170)

2.1.1 Service Innovation Processes

The study of the innovation process in services has attracted a number of contributions both theoretically and empirically grounded. Besides the prominent process model developed by Cooper (1993), in services research additional process models coexist, e.g. by Donnelley, Berry and Thompson (1985), Johnson, Scheuing and Gaida (1986), as well as more recent models developed by Alam and Perry (2002) or Froehle and Roth (2007). Although Cooper’s (1993) model was not designed to fit particularly service development contexts, it is being used as a reference point in many publications dealing with services innovation (cf. Alam & Perry, 2002). His initial model, which was modified in later years, shows a five-fold process. It starts with the scoping for new business opportunities and after this initial venturing, a business case is being drafted which results in the development and subsequently the testing and launching of the new product / service. Thereby each phase is followed by an evaluation stage in which the potential of the possible new product is being scrutinized and either is being passed to the next stage, or is being terminated. The following exhibit shows Cooper’s (1993) initial process model for product innovation.

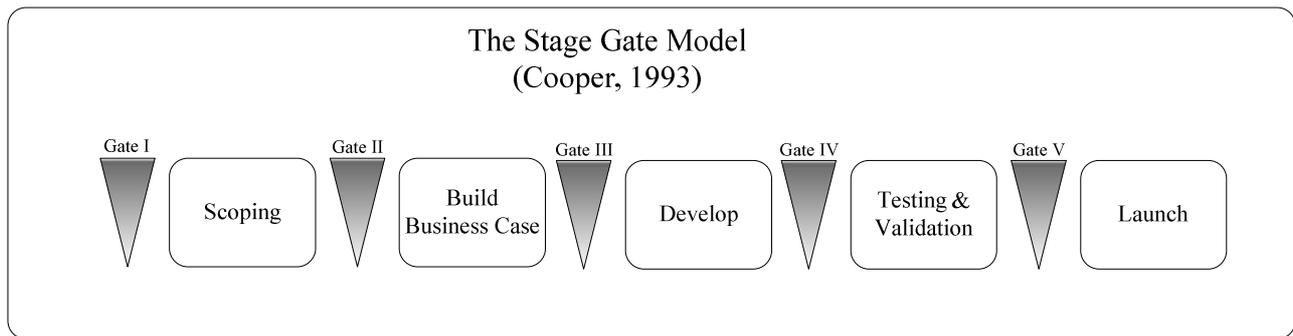


Exhibit 6: Innovation Process by Cooper, 1993

In addition to this basic reference point for innovation process designs, Alam and Perry (2002) review the literature on different existing service innovation processes and identify in their analysis of the innovation processes of 12 service organizations an innovation process of ten stages. For large organizations the authors find that the stages were conducted strictly sequentially while for small organizations they find that some process phases were conducted in parallel. However, the authors argue that such partial parallelism of stages could be worthwhile not only for smaller service organizations. This parallel development process starts with parallel strategic planning and idea generation, which is followed by parallel idea screening and business analysis. After these four stages cross functional teams are being formed and subsequently the service and process system design is being developed. While these two phases are being conducted in a sequential manner, the following stages of personnel training and pilot testing are again conducted in parallel to each other. Finally test marketing is being conducted which is succeeded by commercialization of the newly developed service. With these paralleling of certain phases of the innovation process speed of development could be increased (Alam & Perry, 2002). Yet, while these authors identify two process models, one linear and another with partial parallel phases, they do not distinguish between incremental and radical innovation projects. Due to this it remains open to debate whether the small firms, in which they identified the more dynamic process, were more prone to develop radical innovation and whether the large firms, which conducted a rather strict linear process, were more prone to develop incremental innovations. Particularly the tendency of large firms to innovate rather incrementally and the tendency of small firms to be capable of innovating radically has been pointed out in literature, several times (cf. Christensen, 2000; Tushman & O'Reilly, 1997) Yet, due to the fact that these authors conducted their research at the "innovation programme" level, no analysis of the degree of newness and the potential differences in the innovation process design was identified. The following exhibit visualizes the partial parallel innovation process presented in their study.

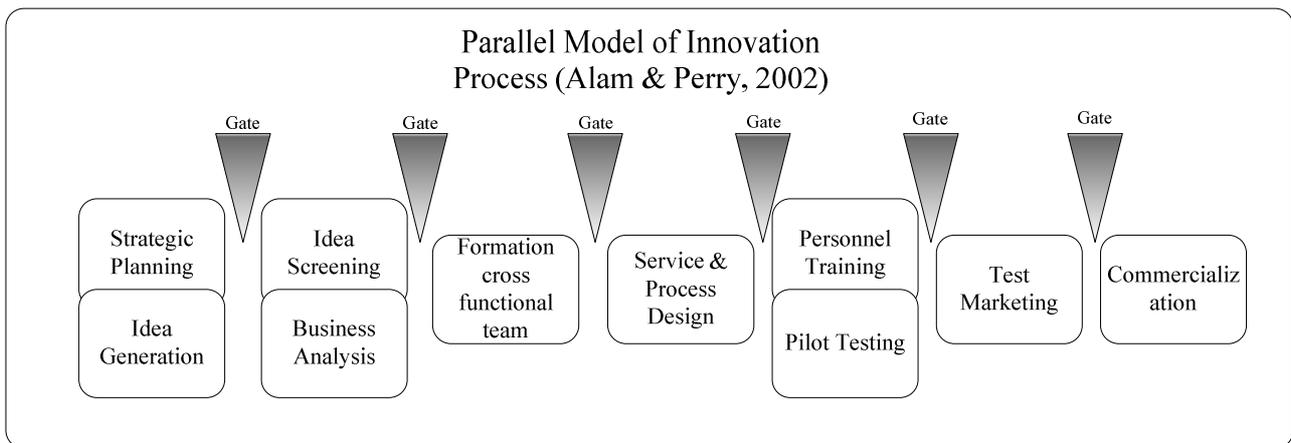


Exhibit 7: Innovation Process by Alam & Perry (2002)

Finally, Froehle and Roth (2007) present a generic development process, suggesting a design, analysis, development and launch stage which again was based on Johnson et al's (2000) original process model. Accordingly, the design phase comprises, according to the authors, the identification and evaluation of new ideas and the definition of objectives for potential new services. In this phase, already early and informal customer feedback may become sourced (Froehle & Roth, 2007). In the analysis phase, more detailed analysis in terms of potential profitability, marketability and the fit of the new idea with the existing service portfolio is being assessed. In the development phase, the idea is being operationalized by means of designing and implementing the needed service procedures and infrastructure. Also market testing and prototyping are typical activities in the development phase, besides staff training and hiring. Finally, the launch stage comprises promotions and other market-launch related marketing activities. (Froehle & Roth, 2007). Further in addition to proposing these four phases, the authors stress potential feed-forward and feedback iterations and present the process as a loop rather than a successive, linear routine.

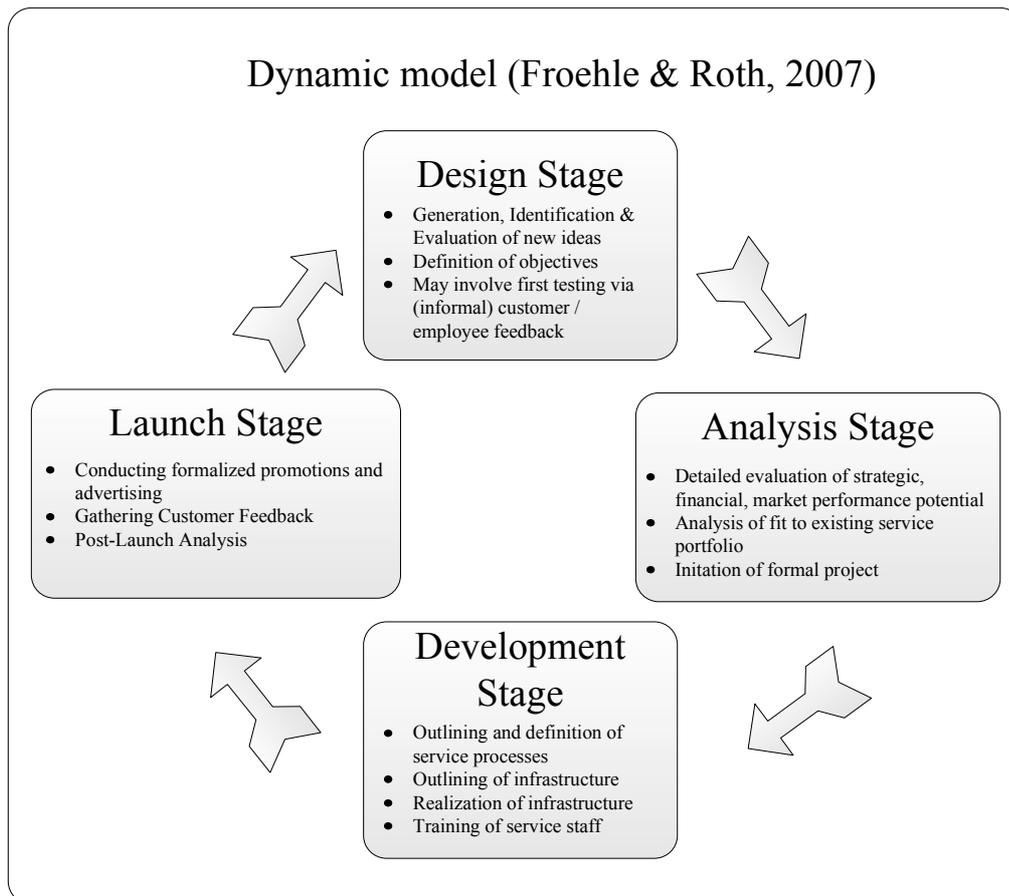


Exhibit 8: Innovation Process Froehle & Roth, 2007

Particularly this dynamic perspective on the innovation process mirrors recent conceptualizations of innovation as related to things such as play, experimentation (March, 1991), or even chaos (Van de Ven et al., 2008). Particularly Van de Ven et al. (2008) propose on the basis of extensive qualitative research that innovation processes only rarely follow linear patterns, but rather can be considered as a cycling activity which switches constantly between divergent behaviour and convergent behaviour. Divergent behaviour, according to the authors, comprises aspects such as discovery, inspiration, and exploration, among others. Convergent behaviour, in turn, is characterized by aspects such as exploitation, testing, commercialization of ideas, etc. Hence, Van de Ven et al. (2008) present an innovation cycle, instead of a linear process which resembles to large degrees the basic idea of exploration and exploitation by March (1991).

Hence, when reviewing the different process models existing in literature then it crystallizes that perspectives have developed from a linear, successive model to a more and more dynamic and iterative model (cf. also Alam & Perry, 2002). Reasons for this may be rooted in observations that firms' technological and market environments are changing in unpredictable ways (Tushman &

O'Reilly, 1996). Due to this increased dynamism, innovation processes may have changed, too. Thereby in research still a debate exists, as to how the process follows a formal structure or whether the innovation process would be better less formalized in order to achieve high levels of success (Alam & Perry, 2002). Further, existing research has not yet delved in depth into the differences between the innovation processes in radical and incremental service innovation. Here particularly the dynamics within each process, i.e. parallelism of stages and iterations of the whole process, has – to my knowledge - not yet been studied in depth in the service research domain.

2.2 External Learning

2.2.1 Overview on Learning Perspectives in Innovation Research

Although learning perspectives in service innovation research belong to the least studied perspectives on innovation (Droege et al., 2009; Sundbo, 2000), in wider literature, several scholars have started to argue that learning and innovation cannot be separated in a useful manner (Spender and Grinyer, 1996). Following this argument, researchers have started to approach innovation phenomena from a learning perspective. This is due to the fact that innovation is sometimes perceived as a learning process in its own right. Lam (2006), for example, argues: “Innovation can be understood as a process of learning and knowledge creation through which new problems are defined and new knowledge is developed to solve them.” (Lam, 2006: 124).

Organizational learning can be defined as “the capability of organizations to create, disseminate, and act upon generated knowledge.” (Auh and Menguc, 2005: 1652) In this vein, researchers have investigated this process or capability using different learning types, such as generative vs. adaptive learning (Senge, 1990), or double loop vs. single loop learning (Argyris and Schon, 1978). These different operationalizations of learning can, however, be grouped into two kinds of learning, namely one that is related to framework-breaking and revolutionary change, while the other is more concerned with step-by-step enhancement which takes advantage of repetition and routine, and thus of experience. When trying to compare the concepts of single/double loop learning or generative/adaptive learning to one of these groups, it becomes evident that double loop and generative learning respond well to a more exploratory type of learning and single-loop and adaptive learning obviously fit well to an exploitative learning type (Auh and Menguc, 2005). Correspondingly, research on organizational learning can be summarized as being concerned with two general learning modes, namely exploitation and exploration (Auh and Menguc, 2005). In recent innovation literature, especially these concepts of exploration and exploitation have become

related to radical and incremental innovation. According to Jansen et al. (2006): “Exploratory innovations are radical innovations and are designed to meet the needs of emerging customers or markets ... Conversely, exploitative innovations are incremental innovations and are designed to meet the needs of existing customers or markets”. (Jansen et al., 2006: 1662)

March (1991) notes that the “essence of exploitation is the refinement and extension of existing competences, technologies, and paradigms. Its returns are positive, proximate, and predictable. Exploitative learning is variance-decreasing and efficiency-oriented and includes things such as refinement, choice, production, efficiency selection, implementation.” (March, 1991:71) The essence of exploration is the experimentation with new alternatives. Its returns are uncertain, distant, and often negative.” (March, 1991: 85) It involves “things captured by terms such as search, variation, risk taking, experimenting, play, discovery.” (March, 1991:71) He follows on arguing that thus “the distance in time and space between the locus of learning and the locus of the realization of returns is generally greater in the case of exploration than in the case of exploitation, as is the uncertainty.” (March, 1991: 85) These two important foundations of organizational learning research are shown in the next exhibit.

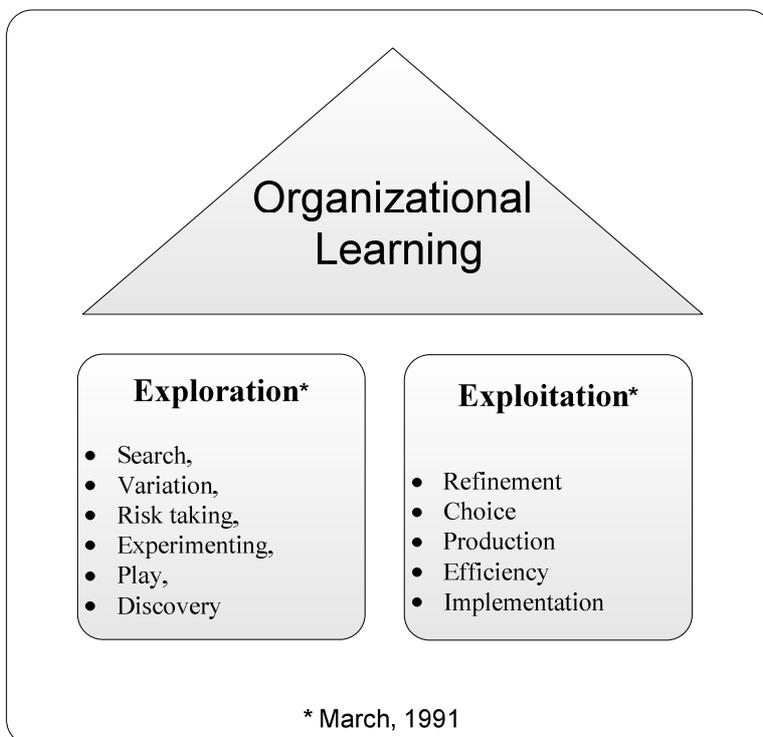


Exhibit 9: Elements of Organizational Learning by March, 1991

However, notwithstanding these trade-offs, both learning mechanisms are crucial for an organization to survive in the long term⁴ (e.g. Levinthal and March, 1993, He and Wong, 2004). On the one hand, exploitation supports the refinement of existing products, thus supporting the incremental improvement of existing products, which are crucial in order for a firm to achieve short term success (Atuahene-Gima, 2005). On the other hand, exploration supports the creative problem solving processes in organizations and thus nurtures the development of radically new products (Bierly and Daly, 2007). Finally, the joint presence of exploration and exploitation has been shown to even further increase the single benefits of exploitation and exploration (Tushman and O'Reilly, 1996; O'Reilly and Tushman, 2007; Sheremata, 2000; He and Wong, 2004). Subsequently, organizations which succeed in achieving a balance of exploratory and exploitative learning in order to develop both incremental and radical innovations have been termed "ambidextrous" organizations or ambidexterity (Tushman and O'Reilly, 1996; Sheremata, 2000).

At the same time, the judgment as to whether exploratory or exploitative learning has occurred depends greatly on the situation of the studied organization, as an exploitative innovation for one organization could have been an exploratory innovation for another firm due to different capabilities or competences one organization has access to. (He and Wong, 2004: 485) Knott (2002) also argues that what is exploratory for one part within an organization might be exploitative for another, meaning that both have to be defined according to the specific context they have been found in (Knott, 2002).

Another operationalization of the learning perspective constitutes the so-called *4I Organizational Learning Model* by Crossan et al. (1999) which incorporates previous work by Senge, (1990), Nonaka and Takeuchi (1995), March (1991), Daft and Weick (1984) and others and has already been tested in a strategic renewal change project (Crossan & Berdrow, 2003). This framework links learning at different organizational levels, i.e. the individual, group, and organization levels. Four distinct phases of learning take place, dispersed over these different loci, namely intuiting, interpreting, integrating, and institutionalizing. Intuiting and interpreting occur at the individual level, while interpreting and integrating occur at the group level and, finally, institutionalization takes place at the organizational level.

⁴ This view of the importance of both exploration and exploitation is also applied in this work, although some claims exist that this is not the case. Atuahene-Gima (2005) analyzed the relationship between exploration/exploitation and innovation performance and found that either low exploitation and high exploration or high exploitation and low exploration have to be in place in order to be successful at developing radical innovations.

According to Crossan et al. (1999) these learning steps are defined as follows: “*Intuiting* is the preconscious recognition of the pattern and/or possibilities inherent in a personal stream of experience. This process can affect the intuitive individual’s behaviour, but it only affects others as they attempt to (inter)act with that individual. *Interpreting* is the explaining of an insight, or idea to one’s self and to others. This process goes from the preverbal to the verbal and requires the development of language. *Integrating* is the process of developing shared understanding amongst individuals and the taking of coordinated action through mutual adjustment. Dialogue and joint action are crucial to the development of shared understanding. This process will initially be ad hoc and informal, but if the coordinated action taking is recurring and significant, it will be institutionalized. *Institutionalizing* is the process of ensuring that routinized actions occur. Tasks are defined, actions specified and organizational mechanisms put in place to ensure that certain actions occur. Institutionalizing is the process of embedding learning that has occurred by individuals and groups into the institutions of the organization including systems, structures, procedures, and strategy.” (Crossan et al., 1999: 525)

This model also comprises a dynamic view of organizational learning, as it not only considers learning at different levels and in different forms. In addition, it explicitly draws attention to the fact that exploration of new knowledge and the exploitation of existing knowledge interact within one process of innovation. Crossan et al. (1999) call this feed-forward (exploration) and feedback (exploitation). Although it originally aimed at explaining learning patterns in the process of strategic renewal, Stevens and Dimitriadis (2004) showed that it can also explain the learning patterns occurring in an innovation process. The following figure outlines the main elements of this learning framework.

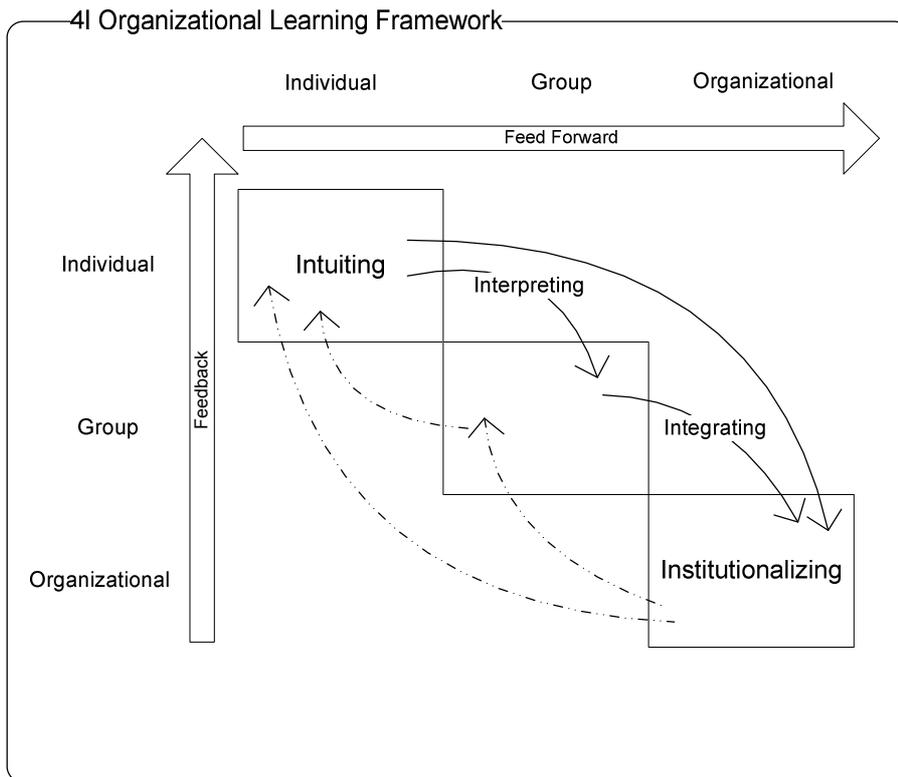


Exhibit 10: Organizational Learning Framework (Crossan et al. 1999)

2.2.2 External Learning concept

The above approaches to studying innovation from a learning perspective have, however, focussed mostly on how to learn internally. For example, Crossan et al. (1999) propose “intuiting” as the first step of their organizational learning process, which implies that individual organization members initiate the organizational learning process. In a similar vein in the field of exploration and exploitation, dominant perceptions can be found in the fact that it is assumed that simultaneous exploratory and exploitative learning is best achieved by structurally or timely separating these activities from each other within the same organization (Adler et al., 1999). The opportunity of sourcing exploratory learning from the outside via outsourcing, or contracting is, however, not taken as an alternative pathway (e.g. Tushman & O’Reilly, 1996). Organisations can expand their focus towards different learning sources, i.e. through a combination of internal and external learning (Bierly & Chakrabarti, 1996). Internal learning takes advantage of the internal knowledge base while external learning is focussed on internalising externally sourced knowledge.

At the same time, external learning can differ in its intensity and scope, depending on the efficiency orientation of the focal firm (Sobrero & Roberts, 2001). According to these authors, higher returns

from external learning come at the cost of efficiency in the relationship between external learning taking place between two organizations. Whereas the relationship can be clearly organised and controlled for low external learning outcomes, greater learning resulting from external learning collaborations also demands more freedom and self-responsiveness granted to the partner, thereby reducing opportunities to define boundaries and limitations of the work the external partner is performing. This autonomy may, in some cases, hamper the smooth integration of this externally developed knowledge into the knowledge base of the focal firm (Sobrero & Roberts, 2001). Based on this continuum of learning intensity, Sobrero and Roberts (2001) identify four types of inter-organizational learning, i.e. traditional, integrated, advanced, and black box, with traditional referring to the least freedom granted to partner firms, and black box referring to the highest extent of freedom permitted.

The above described intensity of collaboration can be extended according to Bapuchi and Crossan's (2004) segmentation of external learning into inter-organizational learning, congenital learning, and vicarious learning. While the above reasoning by Sobrero and Roberts (2001) concerned inter-organizational learning, an organization learns congenitally if it internalises knowledge remaining at the industry level in which the focal firm is positioned. Vicarious learning, in contrast, is focussed on learning from direct competitors rather than the experience of the whole industry. Both congenital and vicarious learning have been found to be negatively related to firms' failure (Bapuchi & Crossan, 2004).

Besides the above reviewed studies, in the recent past a rise of "open innovation" literature could also be observed. Initiated by Chesbrough (2006), this approach incorporates research from organizational learning, strategy, innovation, alliances, and others, and proposes a general framework for innovation. The concept can be subdivided into two main pillars. First, innovating firms may benefit from acquiring external information via collaborations, license purchases, or communities for innovation, among others. On the other hand, open innovation favors the externalization of internally held knowledge and ideas. While the former pillar of this stream of literature is closely linked to the external learning literature, the latter dimension constitutes a distinct element, as it directs attention in the opposite direction. Examples of such "inside-out" processes are, for example, the licensing-out of internally developed patents or product concepts which would not be further considered for exploitation by the proprietary firm. Via this trading of internal ideas, additional value stream may be created in the market (Chesbrough, 2006). Yet, for such externalization of ideas, strong intellectual property rights need to be in place as only with

such appropriation mechanisms can innovating firms become capable of trading their ideas in a market place without being threatened by potential competitor imitation or free riding (Chesbrough, 2006).

Much attention in this stream of literature has, hence, been focussed on issues related to intellectual property rights and innovation (cf. Simcoe, 2006; West, 2006; Graham et al., 2006). From this raised attention, first results (Laursen & Salter, 2005) support a positive and significant relationship between open innovation and strength of intellectual property rights. “Open Innovation attitudes are strongest in industries with high appropriability (such as pharmaceuticals) and weakest in industries with low appropriability (such as textiles).” (West, 2006: 130) Hence, West (2006) acknowledges the importance of intellectual property rights for open innovation, but at the same time calls for more research into this neglected area of research, which may allow for novel insights, particularly in a service context characterized by low degrees of intellectual property rights.

Besides the above described perspectives on external learning and innovation, related studies have identified that external knowledge may not be accessible unless firms establish an internal capacity in order to understand what goes on outside the firm (Santoro, Bierly & Gopalakrishnan, 2007). This “absorptive capacity” was first introduced by Cohen and Levinthal (1989) and they defined this capacity as “the firm’s ability to identify, assimilate and exploit knowledge from the environment” (Cohen & Levinthal, 1989: 569-70). Subsequently, scholars have revised the original concept of Cohen and Levinthal, highlighting additional elements which impact on a firm’s absorptive capacity (Lane, Salk, & Lyles, 2001; Lane & Lubatkin, 1998; Todorova & Durisin, 2007).

2.2.3 Absorptive Capacity (ACAP)

2.2.3.1 The Process of Absorptive Capacity

After having reviewed these different approaches towards learning perspectives in innovation research, the concept of absorptive capacity is to be presented. Absorptive capacity integrates the above presented learning perspectives of previous research, e.g. the process perspective of Crossan et al. (1999), or the exploration and exploitation distinction (March, 1991). In addition, absorptive

capacity research builds the foundation for many aspects comprised in the recently emerged open innovation movement (Chesbrough & Vanhaverbeke, 2010)⁵.

The first definition of ACAP by Cohen & Levinthal (1990) as being activities of a firm “to recognise the value of new, external information, assimilate it, and apply it to commercial ends” (Cohen & Levinthal, 1990: 128), has given rise to some debate. Zahra and George (2002) revised Cohen and Levinthal’s (1990) original concept and introduced the concepts of potential and realised absorptive capacity to the ACAP literature. While the former comprises the activities of acquisition and assimilation, the latter includes the transformation and exploitation of external knowledge. In a subsequent empirical study, Jansen, Van den Bosch & Volberda (2005) empirically verified these two components in their study on the impact of combinative capabilities on potential and realized ACAP.

Lane et al., (2006) and Todorova and Durisin (2007) also started to scrutinize and extend current theory on the absorption process. In their study on the reification of the ACAP concept, Lane et al. (2006) suggest differentiating between three process stages, i.e. “recognise the value”, “assimilate valuable knowledge”, and “apply assimilated external knowledge”. In a similar vein, Todorova and Durisin (2007) conceptually revisited Zahra & George’s (2002) presentation of ACAP, and provided a thorough conceptual discussion on absorptive capacity process models. In their model, ACAP starts with the recognition of the value of external knowledge, which is then followed by an acquisition stage, and subsequently – depending on the proximity of this external knowledge to the internal knowledge base of the absorbing firm – by assimilation *or* transformation phases. Finally, once this external knowledge has been made internally available through these preceding steps, the firm may then turn towards exploiting this knowledge by means of applying it to the development of new products, services, or organizational changes, among others. The following table juxtaposes these different process models.

⁵ PhD Workshop on Open Innovation, Chesbrough & Vanhaverbeke, ESADE Business School, January 2010

Cohen Levinthal (1990)	Zahra & George (2002)	Lane et al. (2006)	Todorava & Durisin (2007)	
Recognition of the value		Recognition and understanding (exploratory learning)	Recognition of the value	
	Acquisition		Acquisition	
Assimilation	Assimilation	Assimilation (transformative learning)	<i>either</i> Assimilation (of external KL)	<i>or</i> Transformation (of internal KL)
	Transformation of external KL			
Application	Exploitation	Application of (exploitative learning)	Exploitation	

Table 4: ACAP Process Models in Literature

Yet, when comparing these different conceptual works on ACAP, there exist differences in the basic definition of the ACAP process (Todorova & Durisin, 2007): First, most studies identified “recognizing the value” of external knowledge as a key component of the learning process. However, Zahra and George (2002) included this activity in their acquisition stage which, according to Todorova and Durisin (2007), “mainly directs attention to intensity, speed, and effort to gather knowledge. The traps of not being able to motivate these efforts by not “seeing” or “understanding” the potential of the new external knowledge may be overlooked.” (Todorova & Durisin, 2007: 777) Hence, these differences between recent re-conceptualisations of the first phase of ACAP do not result in consensus about the ACAP process and hence constrain future research on the concept.

By comparing how studies conceptualised the transformation phase, a second difference between these studies crystallises: Todorova and Durisin (2007) understand transformation as a process directed at the internal knowledge base of the organisation in order to adapt to relevant externally available knowledge. Without transformation of their own knowledge base, distant knowledge would not be accessible for organisations (Todorova & Durisin, 2007). In contrast, Zahra and George (2002) as well as Lane et al. (2006) direct the transformation effort at external knowledge, constituting a counter-position to the transformation focus inherent in Todorova and Durisin’s (2007) conceptual model. In sum, various conceptual works on ACAP have suggested different loci of transformation. While some researchers direct attention towards adapting the internal knowledge base to the external information, other ACAP research focusses more on changing the external information to adapt it to the internal knowledge base. Taken together, conceptualizations of the ACAP process have not yet arrived at a unified perspective on the ACAP process, which may be due to a general void of studies analysing the ACAP process in-depth on an empirical basis. The

following table provides examples of some already identified activities pursued in the different process phases of the absorption process.

Absorption Phases	Activities in absorption phases
Recognizing the value	Scanning and monitoring of the firm's environment (Lichtenthaler, 2009) Collection of industry information (Lichtenthaler, 2009) Search (Lane et al., 2006)
Acquisition	Acquisition via collaboration with external institutions, technology purchase (Lichtenthaler, 2009)
Transformation of internal KL-base	Change of internal, already existing knowledge structures (Todorova & Durisin, 2007)
Assimilation (Transformation of external information)	Understanding, Interpretation, Comprehension (Zahra & George, 2002) Adapting / Fitting of external knowledge to internal expertise (Todorova & Durisin, 2007)
Application	Use, Implementation (Cohen & Levinthal, 1990, Zahra & George, 2002)

Table 5: Activities in ACAP Phases

Further, all process conceptualizations which were identified in the literature propose one single process design for organizations to adopt. The only process model which “flows” differently, depending on the nature of the needed external information, is the one presented by Todorova and Durisin (2007). In fact, research has pointed out the lack of consideration of how absorptive capacity may unfold in different innovation contexts. According to Lane et al., (2006), to date, ACAP research has continued to study incremental innovations, yet lacks insights on how

absorptive capacity may unfold during radical innovation. Possibly due to this concentration of one single innovation context, i.e. incremental innovation, process models of absorptive capacity have remained at a global, non-context-specific, level.

Hence, this limitation, in combination with the general lack of in-depth process studies of absorptive capacity, and the void of service oriented research in this domain have served as the basic foundation for the purpose of this research, i.e.:

“How does the absorption of external information unfold during radical and incremental service innovation projects?”

In addition to the overly great focus in ACAP research on incremental innovation, and its study on the basis of a “one fits all” process for different contexts, another limitation of existing research is the focus on absorption of technical information (e.g. Cohen & Levinthal, 1990; Lane & Lubatkin, 1998; Lichtenthaler, 2009), due to the focus on R&D in many ACAP studies (Lane et al., 2006) even though this is rarely performed in industries such as the service sector (Miles, 2006). As a result, ACAP in non-R&D contexts are underrepresented (Lane et al., 2006) and, in addition, may call for the investigation of additional absorption activities including the absorption of non-technological information such as market information. In fact, as Lichtenthaler (2009) argued, but omitted to consider in his empirical research, learning about new market knowledge constitutes a similarly important activity which needs to be in place together with technical knowledge absorption in order to facilitate the absorption process. Yet, while Lichtenthaler (2009) implied that most of the time a firm possesses sufficient levels of market knowledge, other researchers have started to broaden the focus to include additional knowledge domains, such as market knowledge. As Easterby-Smith et al. (2008) argued: “However, the R&D focus has come to dominate the subsequent literature, and in the view of Lane et al. (2006), this provides a technological emphasis at the expense of process-oriented knowledge such as managerial techniques, marketing knowledge and manufacturing know-how.” (Easterby-Smith et al., 2008: 485). First insights regarding these additional knowledge domains have been reported by Arbussà et al. (2007). These authors investigated absorption activities not only regarding technical R&D, but also included “downstream activities”, referring also to marketing research. While the study by Arbussà et al. (2007) was based upon the highly aggregated data set of the OECD “Community Innovation Survey” and hence did

not allow for fine-grained analysis of these organizational processes, this study counts among the few studies that do not focus solely on technical knowledge absorption.

Besides the above identified differences in the proposed process stages of existing ACAP conceptualizations, as well as the lack of more fine-grained and innovation context-specific process models, current ACAP models are silent about the nature of the ACAP process in terms of a consecutive or parallel nature. The sole consideration of the dynamic aspects has been provided by Todorova and Durisin (2007) who conceptually proposed an iterative flow of the absorption process by including in their model feedback loops between the alternative ACAP stages of assimilation and transformation. While Todorova and Durisin (2007) argue, referring to Cohen and Levinthal (1990), that a further feedback loop exists between the current knowledge base and the new absorbed knowledge, they do not go into depth in their arguments on this issue, nor do they discuss possible relations between other, additional process stages. Hence, although these authors are aware of the need to study ACAP as a dynamic concept, no detailed insights into the nature of potential dynamics within the ACAP process have been discussed. Neither was much discussion on the parallel pursuit of learning processes in the wider field of organizational learning found. Hence, by investigating the nature of the ACAP process flow over time, additional insight can be gained as to how organizations may succeed in striving for absorbing external knowledge.

Consequently, as the first of three more detailed research aims, this study will focus the investigation on the following research question:

Subquestion 1a: What are the absorption process phases during incremental and radical service innovation and how do they develop?

Related to this first aim of this research, is the gap in literature which inhibits more insights as to how the absorption process is related with the general innovation process. As has been outlined in the section on service innovation already, service innovation process conceptualizations have evolved from linear, static processes to highly interactive and dynamic models which take into consideration potential feedback and feed-forward loops. Hence literature has considered the at times unpredictable nature of innovation by proposing innovation cycles rather than linear stage gate models (e.g. Froehle & Roth, 2007; Van de Ven et al., 2008). As the above discussion on the lack of ACAP focussed process studies revealed, however, literature has not yet covered insights as

to how the ACAP process is related to the general innovation process, as process studies on ACAP are lacking in general terms (Lane et al., 2006). Hence more has to be learnt about how the ACAP process unfolds in relation to the general innovation process. Besides improving our understanding of the ACAP process itself – as is reflected by the first sub-research question – it is important to obtain a better understanding which ACAP phases are being conducted in which innovation stages and whether the ACAP process is performed ahead of, in parallel or would be lagging behind the general innovation activities and which consequences result from such patterns. With this extended perspective, the ACAP process is not only illuminated by itself, but allows for more practical insights how the ACAP process has to be managed during concrete innovation projects. Hence the second sub-research question is:

Sub-question 1b: “How are the absorption process and the service innovation process related to each other?”

2.2.3.2 Facilitators and Inhibitors of Absorptive Capacity

While the process of absorptive capacity has only rarely been investigated, factors supporting absorptive capacity as a global concept have been identified to a considerable extent (e.g. Zahra & George, 2002; Lichtenthaler, 2009). Although different review studies come to different sets of facilitators and inhibitors for the absorption of external information, some factors are shared among them, creating a partial consensus on the construct of absorptive capacity. Among these generally accepted factors are the firm’s prior knowledge, firm size, the industry’s intellectual property rights, knowledge-sharing mechanisms inside the firm, and the nature and source of external knowledge (e.g. Zahra & George, 2002). In addition, factors such as members’ mindsets and power relations have emerged in the literature as potential factors for successful absorption (Todorova & Durisin, 2007, Easterby-Smith et al., 2008). The following table provides a first overview of the various factors influencing the ACAP process. These are reviewed in more detail in the following.

Facilitator / Inhibitor	Characteristics	Source
Prior Knowledge	Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge)	Cohen & Levinthal (1990) Easterby-Smith et al., (2007)
Nature of external knowledge	Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data)	Szulanski (1996), Cohen & Levinthal (1990)
Mindset	Appreciating external information (in contrast to „not Invented here syndrome) Being aware of the need to adapt	Cohen & Levinthal (1990), Menon & Pfeiffer (2003), Todorova & Durisin (2007)
Social Integration Mechanisms	Structures supporting the sharing and interconnectedness of different internal expertise areas	Van den Bosch et al. (1999), Zahra & George (2002), Todorova & Durisin (2007)
Cross Boundary Expertise	Complementary functions within the organization ought to be intermeshed redundancy in expertise	Cohen & Levinthal (1990)
Power Relations	Relationships involving the use of power and other resources by an actor to obtain his preferred goal	Easterby-Smith et al. (2008), Todorova & Durisin (2007)
Network of external partners	Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship	Powell (1998), Lane et al. (2001), Van Wijk et al. (2001), Larsson et al. (1998)
Firm Size	Revenue, number of employees	Lichtenthaler (2009), Arbussa et al. (2007)
Intellectual Property Rights	Low degree of protection mechanisms available to shield service innovation from imitation	Mendonca et al. (2004), Miles (2006)

Table 6: Components of Influencing Factors of the ACAP Process

The prior knowledge which a firm has accumulated over time has been identified from early on in ACAP research as an important lever for a firm to learn from external sources. In more detail, Cohen and Levinthal (1990) argued on the basis of research on individual cognitive structures that “accumulated prior knowledge increases both the ability to put new knowledge into memory, what we would refer to as the acquisition of new knowledge, and the ability to recall and use it.” (Cohen

& Levinthal, 1990: 129). Reasons for the beneficial role of prior experience reside in the findings from cognitive research which revealed that, having learned in the past, and having therefore accumulated knowledge and expertise facilitates future learning, as the firm has “learned to learn”. These authors take into consideration, however, that in particular basic prior experience helps to absorb novel, distant knowledge. One example constitutes the knowledge of basic algebra which, according to Ellis (1965), is a prerequisite for understanding more complex mathematical solutions, such as calculus (Cohen & Levinthal, 1990). While other researchers, such as Zahra and George (2002), rather consider the potential downside of prior knowledge as causing a potential “path-dependence” of a firm’s future learning based on its prior experiences, recent re-conceptualizations of absorptive capacity support Cohen & Levinthal’s notion of the beneficial role of prior knowledge for absorbing new knowledge (Lane et al., 2001). However, prior knowledge should encompass expertise in different variegated expertise areas (Cohen & Levinthal, 1990), encompassing not only technological knowledge, but also marketing and other experiential “know-how” (Esterby-Smith et al., 2008).

Related to the prior knowledge base is the size of a firm, based on which absorptive capacity may be present to larger degrees than this would be the case for small organizations (Lichtenthaler, 2009). However, firm size and the corresponding larger amount of internal expertise may need some more fine-grained analysis. While Lichtenthaler (2009) found a generally positive influence of increasing the firm size on the ability of a firm to absorb external knowledge, earlier research by Stock et al. (2001) found evidence that larger amounts of prior knowledge not always benefit the firm. In their analysis of R&D activities in the computer industry over a period of 24 years, they identified an inverted U-shaped relationship between firm performance and absorptive capacity, measured as R&D intensity. Stock et al. (2001) interpret these findings as first insight that rising amounts of R&D intensity, e.g. due to larger firm size, may hamper performance if very high levels are present, as the returns of too much investment in the internal knowledge base may not pay off as well as it would at lower levels of such investment. In addition, Arbussa and Coenders (2007) identified that firm size may or may not benefit absorptive capacity, depending on industry characteristics, which however could not be captured to a sufficient degree, according to the authors, calling for more fine-grained analysis in this field.

As in ACAP research, firm size is frequently related to an increasing amount of internal investments in the internal knowledge base; this finding may have implications for wider research. In fact, the findings presented by Stock et al. (2001) seem reasonable, considering wider management

literature. Larger firms have been identified as facing higher risk of inertia (Tushman & O'Reilly, 1996). In other words, at very high degrees of firm size it becomes more difficult to absorb new knowledge. In such a case, it has to be taken into consideration that absorbing external information not only means acquiring it, but also involves its application inside the organization. The larger a firm becomes, the more its knowledge base may support the identification of a very broad set of external knowledge domains, yet it may have more difficulties than smaller firms in integrating the newly gained insights inside the organization. The increased complexity of the internal routines of larger organizations and the resulting difficulty to change them quickly may play a significant role in this context (Hannan & Freeman, 1984). Hence, the unidirectional positive relationship of firm size and absorptive capacity needs to be further analyzed in order to contribute to the here identified debate.

Other factors than the size of the firm or the prior knowledge base constitute internal mechanisms for sharing knowledge and the degree to which different expertise areas show partial overlaps. Based on a case study in the publishing industry, Van den Bosch et al. (1999) proposed that internal organizational characteristics matter and influence a firm's ACAP. More specifically, combinative capabilities of a firm enhance the absorption of external information through structures supporting the sharing and interconnectedness of different internal expertise areas. Such interconnectedness allows internal experts to better understand other existing internal expertise areas. Communication quality can be increased by this partial knowledge of other domains. Through this interconnectedness, different expertise areas are combined and allow for an increased understanding of new external information. As Van den Bosch et al. (1999) argued, "Consequently, liaison devices facilitate knowledge absorption without creating self-contained units. The effect is that the capacity to process information and to coordinate knowledge is increased..." (Van den Bosch et al., 1999: 557)

Cohen & Levinthal (1990) have also already identified the importance of these organizational enablers. The authors argued that in organizations, "awareness of where useful complementary expertise resides within and outside the organization" (Cohen & Levinthal, 1990: 133) is a critical element for successful absorption. In more detail, the authors favor a partial overlap of existing internal expertise areas, as they argued, "that complementary functions within the organization ought to be tightly intermeshed, recognizing that some amount of redundancy in expertise may be desirable to create what can be called cross-functional absorptive capacities." (Cohen & Levinthal, 1990: 134) Other studies by Zahra and George (2002) also consider this enabler as increasing the

efficiency of ACAP and introduce the name “social integration mechanism” for the above described knowledge sharing and cross-boundary expertise. Yet, while Cohen and Levinthal (1990) argued in favour of both the sharing mechanisms and a partial overlap of expertise across departments, Zahra & George (2002) concentrate instead on the efficiency gains through sharing information via adequate organizational structures (Sheremata, 2000), leaving open the consideration of partial overlaps of expertise across different expertise areas within the organization. Additionally, while Zahra & George consider these “social integration mechanisms” to impact especially on the middle part of the absorption process, that is, the assimilation and transformation activities, Todorava and Durisin (2007) rather consider these internal sharing mechanisms as relevant to all absorption phases, as all phases of the absorption process are organizational and hence involve communication of organizational members. However, while Zahra and George (2002) consider a positive influence of increased internal sharing and integration, Todorova and Durisin (2007) argue that, depending on the nature of the internal ties of the different experts and depending on the newness of the external information, such social integration mechanisms may also be negatively related to absorption. They propose that if in an organization the ties between the different individual experts were too strong, the search for novel external information could be hampered, as strong ties would inhibit the inflow of novel information. Based on this discussion of strong / weak ties, Todorova & Durisin propose conceptually that weak instead of strong ties (as proposed by Zahra & George, 2002) would support ACAP in situations in which external information is of a more simple nature.

Hence, while all in all the internal organizational factors related to the sharing of information have been considered in current ACAP conceptualizations, different aspects of these mechanisms have been highlighted, and, in addition, both positive and negative relationships of these mechanisms with ACAP have been identified in literature, calling for more fine-grained analysis of the internal sharing and integration mechanisms.

Related to the above discussion on knowledge sharing and integration mechanisms, employees’ mental models, or mindsets, concerning new external information have also emerged in conceptual thoughts on potential enablers for ACAP (Todorova & Durisin, 2007). This discussion, as in many other cases, dates back to Cohen and Levinthal’s (1990) consideration of the “not invented here” syndrome (NIH syndrome). Menon and Pfeffer (2003) described this syndrome as “a bias against ideas from the outside. Managers within an organization often cohere in closely knit in-groups and come to see the knowledge that insiders possess as superior to knowledge that lies outside.” (Menon & Pfeffer, 2003: 497). According to Cohen and Levinthal (1990) “The not-invented-here syndrome,

in which firms resist accepting innovative ideas from the environment, may also at times reflect what we call lockout.” (Cohen & Levinthal, 1990: 137). Todorova and Durisin (2007) also highlight the relevance of organization members’ mental models and the need to adapt them to the type of knowledge sourced. While the other extreme of overvaluing external information over internally existing knowledge may also exist (Menon & Pfeffer, 2003), in terms of the ability of a firm to absorb external knowledge, both the undervaluing of external knowledge may lead to too little appreciation of useful external knowledge, while the overvaluing of external knowledge may hamper absorption due to a lack of combination and integration of the external information with the internal knowledge base. Hence, as regards the enabling role of organization members’ mindsets, a balance between appreciating external and internal knowledge is likely to benefit absorption most.

In order to support adequate levels of such openness to external information, senior management plays a key role in making employees aware of the need to look outside their own boundaries. As Easterby-Smith et al. (2008) have identified with case study research, and as Todorova and Durisin (2007) have already conceptually proposed, this power needed for encouraging internal organization members to look outwards can, however, also stem from outside sources, such as customers. Such power relations can support absorption processes in several ways. First, powerful actors can use their influence in order to focus organization members in directions they judge as most adequate, and subsequently have the possibility to free up internal resources for such efforts. Power may also be necessary in order to access externally available sources (Easterby-Smith et al., 2008). Yet, as Lawrence et al. (2005) argued, and as Todorova and Durisin (2007) mentioned as well, power relationships have not been researched in either organizational learning theory, and affected by this, neither have they been included in the absorptive capacity literature. Hence, future studies need to consider the role played by powerful actors in influencing an organization’s absorption activities.

Further, absorptive capacity will be influenced by the type of relationships to external sources. Literature on ACAP has thereby considered in particular the breadth of the existing network as well as the overlap of the network partners’ expertise with the absorbing firm’s knowledge base. As Zahra and George argue, “...the diversity of exposure and the degree of overlap between the knowledge bases of the external source and the firm can enhance the firm’s PACAP [potential ACAP, i.e. the first phases of the ACAP process]”. (Zahra & George, 2002: 193) As regards the former, the breadth of a firm’s network allows for tapping into new and related knowledge (Powell, 1998; Van Wijk et al., 2001). March (1991) has already noted that exploratory activities within

organizations benefit from variegated search activities at distant places. Regarding the latter, PACAP, the overlap between the knowledge bases of the donator and the recipient, research has confirmed (Lane et al., 2001) that, “The relatedness of their businesses, the similarity of the problems and priorities with which they are faced is most important for the recognition of new knowledge.” (Lane et al., 2001: 1156) In more detail, due to this overlap, the recipient is able to use its own inhouse expertise in order to identify the value of the externally available information. After this recognition has been accomplished, the internal expertise overlap may further support the recipient in adopting the externally acquired information in order to apply it to commercial ends.

In addition to the breadth and partial overlap of the network partners’ expertise areas, the quality of relationship has also been identified as constituting a relevant ingredient in the successful absorption of novel information. While a trust relationship between two “learning partners” has been considered by many researchers as a facilitator for such interorganizational learning (Lane et al., 2001), research has identified that too high levels of trust on the part of one learning partner may lead to excessive exploitation by the other partner. Likewise, if trust is too low and results in too high degrees of competition, learning may likewise be reduced as knowledge is hidden from each other (Larsson et al., 1998). Nevertheless, adequate levels of trust combined with the long-term focus of the relationship have proven helpful for inter-organizational learning. As Larsson et al. (1998) argued, “prior related interaction between the partners, high learning stakes, trust, and long-term orientation are likely to empower the collective learning process.” (Larsson et al., 1998: 285) Hence, when organizations manage to create long term relationships, characterized by adequate levels of trust, the learning outcome may be high.

Besides the quality of the relationship, the nature of the externally acquired information needs to be considered as well. External information which is to be absorbed may vary on different dimensions and, depending on its implicit or explicit nature, or whether it is complex, simple, or ambiguous⁶, absorption effort and intensity may vary too. In general, the influence of the type of knowledge sourced in the absorption process has already been pointed out by research. (Lane et al., 2006; Todorova & Durisin, 2007) In general, the more implicit and ambiguous the externally sourced

⁶ Ambiguity is defined as the possibility of interpreting an expression in two or more distinct ways, (Collins English Dictionary – Complete and Unabridged 6th Edition 2003. © William Collins Sons & Co. Ltd 1979, 1986 © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003)

information is, the more difficult it becomes to transfer such information, as Szulanski (1996) already argued even in relation to knowledge transfer across internal departments. This may be especially prominent in absorption activities in turbulent environments, (cf. Lane et al., 2006). This is because, in such turmoil, the search for novel information becomes necessary which has never been applied before and which, in consequence, is uncertain concerning its applicability and usefulness to the absorbing firm.

Finally, besides the internal organizational characteristics and the influence of the types of information on a firm's ability to learn from external sources, the wider industry's characteristics may also constitute an important factor. More specifically, the degree to which knowledge can be protected differs across industries (Mendonca et al., 2004). While in technology-creating industries such as biotechnology, manufacturing, and others, patents can be used to protect products from imitation by competitors, in service industries, only weak protection mechanisms are available, such as trademarks and secrecy (Arbussa et al., 2007). Affected by this reduced opportunity to shield internally developed innovations from imitation, several implications for the absorption process emerge. On the one hand, information on competitors' innovations, and the possibility of freely using their ideas and methodologies for own innovation activities may be easier than would be the case in more highly protected industries (Cohen & Levinthal, 1990). On the other hand, however, while more information may "spill over" from competitors even before these have exploited their own innovations to a sufficient degree, this very advantage can turn into an inhibitor. While the innovator can benefit from the competitors, the competitors may, vice versa, take advantage of the focal firm's innovations too, and hence may reduce the value the innovator can create with its investment.

Due to this, the firm which strives at absorbing information for its own innovation activities should be very cautious and may try to avoid performing activities which may constitute an opportunity for competitors to learn about the new innovations. One such activity which "opens" up the innovation to external actors is market testing. While reasons have not been revealed to their full extent as yet, service firms are indeed characterized by relatively low levels of market testing whilst developing new services, as Djellal and Gallouj (2001) revealed: "Our questionnaire did not set out to uncover the reasons for the absence or occasional nature of tests... Even when it is possible to test new products, service firms often do not do so for individual strategic reasons..." (Djellal & Gallouj, 2001: 65). While Djellal and Gallouj (2001) remark that in services, due to the ease of learning about competing services, less testing may be needed since the knowledge about a competitor's

service characteristics would reduce the need to learn by way of testing their own service, this comment does not provide an answer to the potential avoidance of market tests due to the need to keep the service idea secret until it has been launched on the market. In turn, such avoidance of market tests may reduce the absorption of external market information relevant to the successful development of novel services.

Recent research has argued, however, that this potential need for secrecy in order to protect oneself from imitation may decrease with higher degrees of complexity of the innovation at stake. This is in line with Tether's (2003) argument on this matter: "It is sometimes argued that service innovations (as opposed to internal process innovations) are difficult to protect from imitation (Miles et al., 2000). In this context, a high level of competitor watching is to be expected, whereby firms observe the behavior of their competitors and seek to monitor the impact of any innovations they may introduce. If their rivals' innovations appear successful, the firm will seek to rapidly imitate them. This problem of rapid imitation may be less frequent when competitors have more differentiated, and less imitable capabilities, and it is notable that competitors are less likely to be seen as a 'very important' source of information amongst technical and computer services which are likely to have more distinctive and less imitable technological capabilities." (Tether, 2003: 496)

Finally, the above reviewed influencing factors during absorption of external information have to be taken into consideration when studying the process of absorptive capacity. As argued by Lane et al. (2006), absorptive capacity is a multi-dimensional construct which constitutes itself in many interrelated factors. The following table summarizes the - at times contradictory - findings concerning the relationships of the above reviewed factors with the absorption process.

Facilitators/ Inhibitors	Relationship with ACAP	Source
Firm size	Large firm size supports absorption due to higher resources for conducting internal R&D which, in turn, allows for a better understanding of externally available knowledge	Lichtenthaler, 2009, Cohen & Levinthal, 1990
	The effect of the firm size may be positive or negative, depending on the industry	Arbussà and Coenders (2007),
	Very small and very large firm sizes are detrimental to absorptive capacity	Stock et al. (2001)
Prior knowledge	Enables the search for novel information, even if distant to own expertise	Cohen & Levinthal, 1990; Lane et al., 2006; Zahra & George, 2002; Todorova & Durisin, 2007
	Due to prior experience, new knowledge will be path-dependent	Zahra & George, 2002
Intellectual property rights (IPR)	Low IPR allows for more competitive spill-overs, increasing the available external information and constituting an incentive to invest in absorptive capacity	Cohen & Levinthal, 1990
	Low IPR will hinder absorption, as more internal resources are necessary to protect the exploitation of acquired information (i.e. the development of innovations)	Arbussà & Coenders, 2007
Social integration mechanisms	Most important during the transition from assimilation to transformation	Zahra & George, 2002
	Important in all phases of the ACAP process	Todorova & Durisin, 2007
Nature of external knowledge	Implicit vs. explicit Ambiguous vs. unambiguous Complex vs simple	Cohen & Levinthal, 1990, in a broader sense: Lane et al. (2006) On Ambiguity: Szulanski (1996)
Network (source of external knowledge)	Degree of overlap with prior knowledge of the absorbing firm, breadth of firm's networks	Zahra & George, 2002, Cohen & Levinthal, 1990
	The higher the quality of relationship (i.e. level of trust), the better for ACAP	Lane et al., 2001
	Too high and too low levels of relationship quality (i.e. level of trust) diminish absorption	Larsson et al., 1998
Mindset of the employees	Avoid "Not Invented Here" syndrome	Cohen & Levinthal's (1990) Menon and Pfeffer (2003)
Cross boundary expertise	Neither too high nor too low degrees of overlap among internal expertise areas support absorption	Cohen & Levinthal, 1990
Power relations	Power relations of internal and external actors may influence the absorption process in positive or negative ways, via granting / denying resources or directing the absorption to specific knowledge domains	Todorova & Durisin (2007); in a broader sense: Easterby-Smith et al., 2008

Table 7: Debate Regarding the Relationships of Identified Factors with Absorption Process

Hence, as the above table indicates, several factors have been identified as influencing the absorption process. While in some areas parsimonious findings have already been presented, in other areas, as indicated above, debates have emerged regarding the relationship of several factors with the capacity of a firm to absorb external information. In addition, analysis of these factors has been performed in mostly retrospective empirical studies which did not allow for the influence of these factors on the ACAP process over time (Lane et al., 2006). Finally, as the impact of these factors on ACAP has been predominantly analyzed in R&D settings, which, in addition, frequently omitted to apply a process perspective for the assessment of ACAP, the above presented research results may benefit from additional research. In more detail, by studying these factors from a process perspective and by adding a non-R&D context to existing research, rich insights may become possible. On the one hand, the identified debates on factors such as firm size, intellectual property rights, social integration mechanisms, among others, may be clarified. On the other hand, the adoption of a non-R&D setting for the analysis of these factors may reveal further insights as to how existing research is transferable to the here chosen service context, which is characterized by several idiosyncrasies (Fitzsimmons & Fitzsimmons, 2000).

Consequently, as a further focus of my research I will concentrate on the following research question:

Subquestion 2: Which Inhibitors and Facilitators for absorption activities can be observed in incremental and radical service innovation?

3 Research Design

3.1 Introduction

With this chapter, I am presenting the research design of my qualitative case study-based data collection. Preparing a research design prior to entering the field is a crucial prerequisite, as with such a defined framework the researcher can assure that the collected data is logically linked to the initial questions of the study. By so doing, the researcher is further enabled to provide evidence that the data collection adheres to the validity and reliability standards of the scientific community.⁷

Firstly, I will present the different research methodologies available for research and discuss them by considering their appropriatedness for my research questions. *Secondly*, I will turn to the specific decisions I made in designing my future field work activities. I will decide which case study design to follow, which unit of analysis to choose, and which data collection techniques I will need to reliably answer my research questions. *Finally*, I will present a case study protocol with the aim of operationalizing my design in which I will present the (chrono)logical order of my field work activities. At the end of this paper, I will provide to the reader a summary of all decisions taken in my research design.

3.2 Determining the Appropriate Research Methodology: Case Studies

The first question to be answered is: how to methodologically approach my research question? Yin (2003) provides a distinct framework which allows one to discern which research strategy suits the aim of the research best. The type of question can be considered as a helpful “trigger” to decide which research strategy to choose. According to Yin (2003), the researcher has to differentiate between “who”, “what”, “where”, “how”, and “why” questions. If the investigator is primarily interested in questions which start with “what”, basically it can be either of an explorative or more standardized, survey oriented nature (Yin, 2003). Contrary to this, “how” or “why” questions are most often best answered by explanatory ways of inquiry and thus favour the use of case studies, experiments, or history studies. Yin proposes this link and argues that “this is because such questions deal with operational links needing to be traced over time, rather than mere frequencies or incidences”. (Yin 2003: 6). Thereby: “A case study is a history of a past or current phenomenon

⁷ Parts of this section have already been presented in the DEA Examination of the ESADE Doctoral Programme in 2008

drawn from multiple sources of evidence. It can include data from direct observation and systematic interviewing as well as from public or private archives.” (Leonard-Barton, 1990: 249)

However, it is important to note that my research aims at an investigation of the ongoing activities and the overall organization of absorption of external information during radical and incremental service innovation. This research is intended to acquire extensive knowledge on how organizations manage such efforts and thus does *not* aim at any *manipulation* of the organizational setting in a way experiments would focus on. Rather, the activities within the innovation management are to be observed in order to build a rich account of reality out of a large amount of reported features (Gomm and Hamersley 2000).

Furthermore, it is important that my research question does not exclusively consider how the external learning process was managed during past innovation projects, but draws on contemporary projects of the focused organizations. This aspect leads to the conclusion that, although history also aims at achieving answers to “how” or “why” questions, the contemporary character of my future studies is better served by applying case study research.

In addition, as my research aims at investigating organizational activities, which up to now have not been studied in depth (cf. Todorova & Durisin, 2007; Lane et al., 2006), this also suits case study research best. Indeed, this reasoning is also supported by Yin (2003) who argues that answering how and why questions by conducting case study research is most appropriate to such phenomena which have not yet been studied extensively.

Overall, after having discussed in brief the character of my study, **it is proposed that the case study research strategy is most appropriate for my here presented investigations.** The following table (Table 8) summarizes and contrasts the main elements of the study which led to the choice of the case study as the appropriate research strategy.

Strategy	Form of Research Question	Requires Control of Behavioral Events?	Focuses on Contemporary Events?	Number of Cases	Number of Features	Research Aim
Experiment	How, Why?	Yes	Yes	Relatively small number of cases	Relatively small number of features	Development and testing of theory
Survey	Who, What, Where, How many, How much?	No	Yes	Relatively large number of cases	Relatively small number of features	Empirical Generalization
Archival Analysis	Who, What, Where, How many, How much?	No	Yes/No	-	-	-
History	How, Why?	No	No	-	-	-
Case Study	How, Why?	No	Yes	Relatively small number of cases	Relatively large number of features	Understanding the Case itself, without empirical generalization

Table 8: Situations for Different Research Strategies (Yin 2003; Gomm & Hammersley 2000)

3.3 Overall Research Design of Case Study Research

3.3.1 Unit of Analysis

The definition of the unit of analysis represents the foundation for many subsequent decisions in designing the research project and thus has to be explained before propositions about sampling or data analysis are made (Patton 2002). According to Yin (2003), the careful definition of the unit of analysis plays a fundamental role in the design of case study research as the unit of analysis represents the case itself. Additionally, Yin (2003) suggests that the “tentative definition of the unit of analysis (and therefore of the case) is related to the way you have defined your initial research questions.” (Yin 2003: 23)

According to Menor et al. (2002), research on service innovation can be performed on different levels of analysis, such as the strategic business unit, the overall service development portfolio, or an individual product development project, or even on focused steps, stages or tools used in an individual project. In order to gain a more comprehensive insight into the innovation and development activities of service organizations, I chose to focus on organizations’ new service development projects, embedded in the wider organization context. This is important as I am interested in studying how organizations achieve the development of both incremental and radical new services, resulting in the need to study more than a single new service development project. This project perspective has also been adopted recently by scholars studying organizational learning (Holmqvist, 2004) and by scholars studying new service development (Gallouj & Weinstein, 1997; DeVries, 2006). Thus, by looking at innovation projects that are embedded in the wider organization as the unit of analysis, this will allow me to gain a broader picture of the existing learning mechanisms.

3.3.2 Selecting the Detailed Case Study Design

3.3.2.1 Single Case vs. Multiple Case Studies

Prior to any data collection it is necessary to decide what case study design to follow (Yin, 2003). Hereby, one of the first decisions is whether **single case** or **multiple case studies** can provide the optimal framework for addressing the research question, and whether a case is researched holistically or whether several subunits are studied which are embedded in each case.

A single case study is most appropriate when the researcher aims at challenging a dominant theory (Yin, 2003). If this theory has established clear propositions which are perceived as being true for a certain domain, a single case study design may be able to present a critical case which can be used to challenge the propositions of the dominant theory (Yin, 2003). Another reason for a single case design is the uniqueness or the representativeness of a case. If a case has been identified which seemingly does not fall into established categories of existing theories or represents this theory perfectly, this uniqueness or representativeness also constitutes an opportunity to study it using a single case study design. Yet another opportunity for single case study research is offered by the longitudinal case, where the same case is studied over time at several points of time (Yin, 2003).

Besides the single-case design, a research study can also adopt a multi-case approach. Multi-case study research is frequently regarded as being able to deliver scientifically stronger results, as the same phenomenon has not only been observed once, but repeatedly. However, this replication of the findings via several cases must not be confused with statistical sampling of different cases. In fact, the replication logic necessitates that the cases are selected purposefully by taking into consideration whether the same findings are to be duplicated with the same set of case characteristics, or whether each case should differ in some characteristics in order to test whether the identified phenomena can still be observed in these differing settings. (Yin, 2003)

Similar to the single-case design, multi-case studies can also aim at analyzing different subunits within each case and this would constitute an embedded multi-case study. In a second option, they may aim at looking at each case holistically, representing a holistic multi-case design. The following figure depicts these four research designs as proposed by Yin (2003).

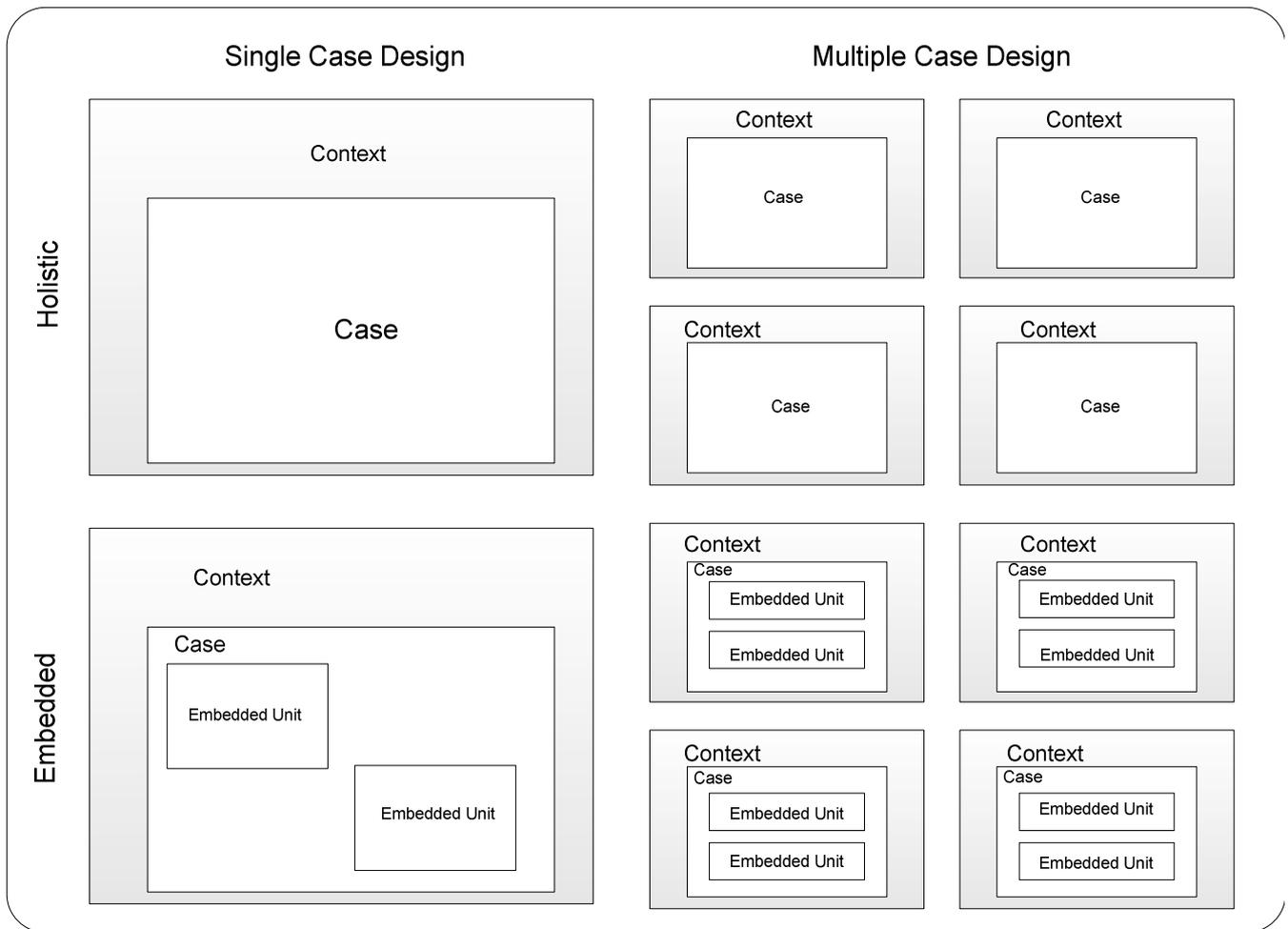


Exhibit 11: Basic Types of Case Study Design (Yin, 2003)

As my research aims at investigating how novel external information is identified, acquired, transformed and applied during new service development projects, I am interested in a phenomenon which can frequently be observed in organizations, so that a revelatory or unique single-case study is not appropriate. Instead, it is of greater interest to conduct multiple-case study research in order to be able to observe absorption processes during service innovation projects in different settings which, in turn, can then be compared with each other in order to match cross-case patterns (Yin, 2003). Thus, the first decision in my research design is that I have chosen to conduct a multiple-case instead of a single-case study. Conducting multi-case study research additionally supports the overall external validity of my research, as through pattern matching via replication logic in several cases I am able to present findings which can be regarded as a first step towards the presentation of a general picture of new service development in service organizations (Yin, 2003). Multiple cases also shield against possible observer bias (Leonard-Barton, 1990). These advantages would not exist if I had chosen to conduct single-case research.

Moreover, it has to be decided whether the multiple cases are to be analyzed **holistically**, or whether **embedded** subunits are to be chosen as additional units of analysis in each case (Yin, 2003). As my focal interest lies on the question of how absorption of external information takes place during service innovation projects, I will study each case study firm by considering the innovation projects conducted there which, in turn, calls for multi-case research of an embedded design. One reason for this lies in the fact that innovation activities in service firms are often highly dispersed and involve multiple parts of an organization simultaneously. Added to this is the tendency that innovations in services only rarely follow a clearly defined, formal development process or are centralized in an R&D department (Hipp and Grupp, 2005). Thus, due to the lack of a clearly defined development procedure for service innovation, and in consequence the need to study the absorption of external information by taking multiple parts of the organization into consideration, I have chosen to study multiple-cases in an embedded way. In Yin's (2003) research-design matrix, this falls into the lower right corner. My choice resembles Leonard-Barton's (1990) argumentation for her chosen case study research. She argues: "In order to understand all the interacting factors [...] it was necessary that the research methodology slice vertically through the organization, obtaining data from multiple levels and perspectives. Therefore a case study approach was appropriate and was used." (Leonard-Barton, 1990: 249)

3.3.2.2 Retrospective vs. Longitudinal Case Studies

After having decided upon conducting multiple cases incorporating the study of several innovation projects, the next step in constructing the research design is to decide whether the multiple case study is to follow a **retrospective**, and / or a **longitudinal** scope. One major difference between these two case study modes is the scope, intensity, and the time to be invested (Leonard-Barton, 1990). Hence, a retrospective case study is very efficient in the ways it can be conducted while a longitudinal study necessitates a long-term commitment and time investment (Leonard-Barton, 1990). Longitudinal case studies can, however, also offer deeper and richer insights than retrospective cases can provide, as a longitudinal case allows for analysing the phenomenon in "the context of interconnected levels of analysis" (Pettigrew, 1990: 269). On the other hand, by the use of retrospective cases, existing patterns can more easily be tested in different settings (Yin, 2003).

In sum, both case study modes offer advantages in different types of validity, while each one also possesses distinct tradeoffs. Leonard-Barton (1990) suggests not foregoing the distinct advantages

of either mode, but to combine retrospective with longitudinal case studies in order to benefit from the advantages of both, but also to balance the distinct tradeoffs each mode owns when conducted in isolation. Firstly, a dual strategy is beneficial for the construct validity of the identified concepts as longitudinal cases are a good way to derive precise definitions of these, while retrospective cases may be used for demonstrating whether identified relationships between the constructs are consistent (Leonard-Barton, 1990). Secondly, a dual methodology also supports the internal validity of the research project, as an identified phenomenon in one case can be directly assessed in the other cases, allowing for a continuous moving forward and backward. According to Leonard-Barton (1990), the matching of ideas between these two case study modes allows for better evidence for the identification of causal relationships than matching ideas only among exclusively retrospective or longitudinal cases.

In sum, after having briefly outlined the different possibilities in case study modes, my research study adopts a dual methodology, i.e., I conducted both longitudinal and retrospective case studies. My choice relied on the insights of researchers such as Leonard-Barton (1990) who argue that a dual methodology is capable of delivering more reliable and valid research results by strengthening internal and construct validity (external validity is already supported by conducting multiple cases, regardless of whether the case mode is longitudinal or retrospective). However, by conducting a dual methodology, the volume of data as well as the coordination of the data collection may be a lot more intensive than pursuing only one case study mode. The trade-offs of this dual methodology are, however, not easily ameliorated. At best, the researcher can make an advance decision with regard to the unit of observation in each case so that he does not have to collect data at levels which will later not be necessary in order to answer the initial research question. (Leonard-Barton, 1990) This increased amount of empirical evidence has been taken into consideration by the data analysis via specialized data analysis software for case study research. More specifically, I used “AtlasTi” coding software for storing and analysing my interview transcripts, photographs, and other documents which facilitated the subsequent analysis of the same.

3.3.2.3 Replication Logic and Selection of Cases

After having decided that a mix of multiple longitudinal and retrospective case studies was best suited to my overall research question, a subsequent decision was taken regarding the selection of the specific cases. According to Yin (2003), the choice of cases depends primarily on the goal of the

researcher, namely whether he wishes to predict similar results (literal replication) or wishes to predict contrasting results, but for predictable reasons (theoretical replication).

I have replicated my case studies with regard to the outcome of the innovation activities. My research includes both successful service innovations as well as struggling innovation projects, according to their project and market performance. Thus, I am able to both iteratively replicate successful innovations and to contrast these successful activities with struggling innovation projects. According to Yin (2003), this constitutes theoretical sampling.

All in all, I have controlled for both dependent and contextual variables in the selection of my cases as both successes and failures of new services are included; additionally, I have limited my cases to organizations belonging to the retail banking industry. However, I cannot control for the explanatory or independent variables which explain the successes or failures of the innovation projects in this study, which, according to McPhee (1990), will lead to two distinct opportunities to integrate the findings from my multiple case study research. McPhee (1990) suggests that, in case study research, there are three opportunities to integrate the findings from multiple cases. If all cases feature the same dependent and the identical independent variables, the integration is similar to a comparison of different data points, which means that all cases can be explained with the same theoretical model. The second integration strategy concerns findings which are directed at the same dependent variables, but which are explained by differing sets of independent variables. If this occurs, the researcher has to apply different explanations for the same outcome which would, for example, be necessary if in one case a successful innovation was mainly dependent on strong leadership, while in another case a successful innovation was enabled mainly by employee engagement. Finally, McPhee suggests that, if in each case different independent variables explain different dependent variables, this would necessitate treating each case as a different image, prohibiting the subsumption of these cases under the same conceptual framework.

As in my study I control the projects' outcome (i.e. the dependent variable), I can ensure that each case is directed at the same dependent variable. However, as the independent variables are not going to be controlled, the explanation of the findings is located rather in the domain of "different explanations" approaches. The following exhibit summarizes the three integration strategies for multiple case studies.

		Independent variables or explanatory concepts	
		Same	Different
Dependent variables or core concepts	Same	<p>Different Data Points: The case studies can all be subsumed under the same theoretical model</p>	<p>Different Explanations: The case studies portray different causal or developmental paths to the same basic type of phenomenon</p>
	Different	<p>Incoherent Approach</p>	<p>Different Images: The case studies involve different, incommensurable but comparable types of phenomena</p>

Exhibit 12: Three Approaches to Integrating Longitudinal Case Studies (McPhee, 1990)

3.3.3 Collecting the Data

Through case study research it becomes possible to incorporate multiple sources of evidence (Yin 2003) which support a rich and realistic portrayal of the cases. This rich description constitutes an important rationale why I chose case study research over other methodologies such as survey research, in addition to the opportunity to *gather evidence from multiple sources of evidence* (Yin 2003). These multiple sources of evidence again allow for “data triangulation”, as the studied events and procedures are supported by more than a single source of evidence (Yin 2003). This distinguishes case study research from other techniques. In survey research, for instance, the investigator has to rely on the information gathered from questionnaires. For the purpose of analysing and understanding the complex processes of innovation in organization, a restriction to survey data only would omit many important sources of evidence from the study. One example would be the assessment or analysis of existing “flow charts” of the actual procedures and activities in the company. This would allow for a direct comparison and pattern matching in one case. Apart

from this, interviews are a viable source of evidence which also contributes to a more complete picture of the organizations under study. (Yin, 2003)

The interviews were conducted in a rather conversational way so as to enable themes to emerge in the interview in order to allow for “discovering unanticipated outcomes” (Marshall & Rossmann, 1989: 17) and so as not to limit the information to pre-defined concepts (Bartunek, Myeong-Gu, 2002). Hence only a limited number of basic guiding questions was used to provide a frame of reference for the interviews. These comprised inquiries about the activities pursued in the innovation project at stake, as well as questions relating to when and how different internal and external project members collaborated in the project, among other things. In addition, interviewees were assured strict confidentiality, meaning that results of the study would be presented to their organizations only in an aggregate way and would not disclose interviewees’ names. By applying these rules to the interview, the social desirability of the interviewees to report only on positive, non-critical aspects was anticipated and was designed to increase the honesty of the interviewees’ reports (Marshall & Rossmann, 1989). Altogether 48 interviews were conducted with general management and project members of the respective innovation projects. While interviews served as the main source of evidence, information extracted from internal and external documents as well as direct observations were used to triangulate the insights from the interviews. The following table lists the various data sources which were available during this research.

Data	BankPro	BBVA	BankXY
Time window of data collection	March 2008 – July 2009	December 2008 – January 2010	March 2009
In-depth, semi-structured interviews at various organizational levels, lasting from 1-3 hours	20 (description of functions of interviewees can be found in the ANNEX)	18 (description of functions of interviewees can be found in the ANNEX)	10 (description of functions of interviewees can be found in the ANNEX)
Internal documents	Selected emails, powerpoint presentations, flow-charts	powerpoint presentations, flow-charts	powerpoint presentations, organization chart
External documents	Expert evaluations of studied innovations, market reports, banking magazines	Expert evaluations of studied innovations, market reports, banking magazines	Expert evaluations of studied innovations, market reports, banking magazines
Observations	Photos	Pictures, videos	Pictures

Table 9: Data Collected & Triangulation

3.3.4 Action Plan for Data Collection

It is important to define, prior to data collection, how the various activities within this research project are interrelated with each other and in what order they are to be conducted (Yin, 2003). As already described in the above, three case studies have been selected. Two of these were studied over a time period, one from March 2008 until July 2009 (BankPro), a second between December 2009 and Mai 2010 (BBVA) and one additional case (BankXY) was studied in March 2009 as a retrospective case study. Hence, as these cases were to a large extent studied in parallel, a continuous and iterative feedback loop has been established in order to adapt the initial research strategy to the emerging themes (Yin, 2003). In a next step, each case study has been analysed via a separate case study report, which has in turn been aggregated into a cross case analysis report in order to enable pattern matching and cross case analysis of the identified phenomena (Yin, 2003). This final effort was accomplished in March 2010 and the last step of writing the case report in the form of a thesis monograph was performed in the subsequent months. The following chart gives an overview of the above outlined activities.

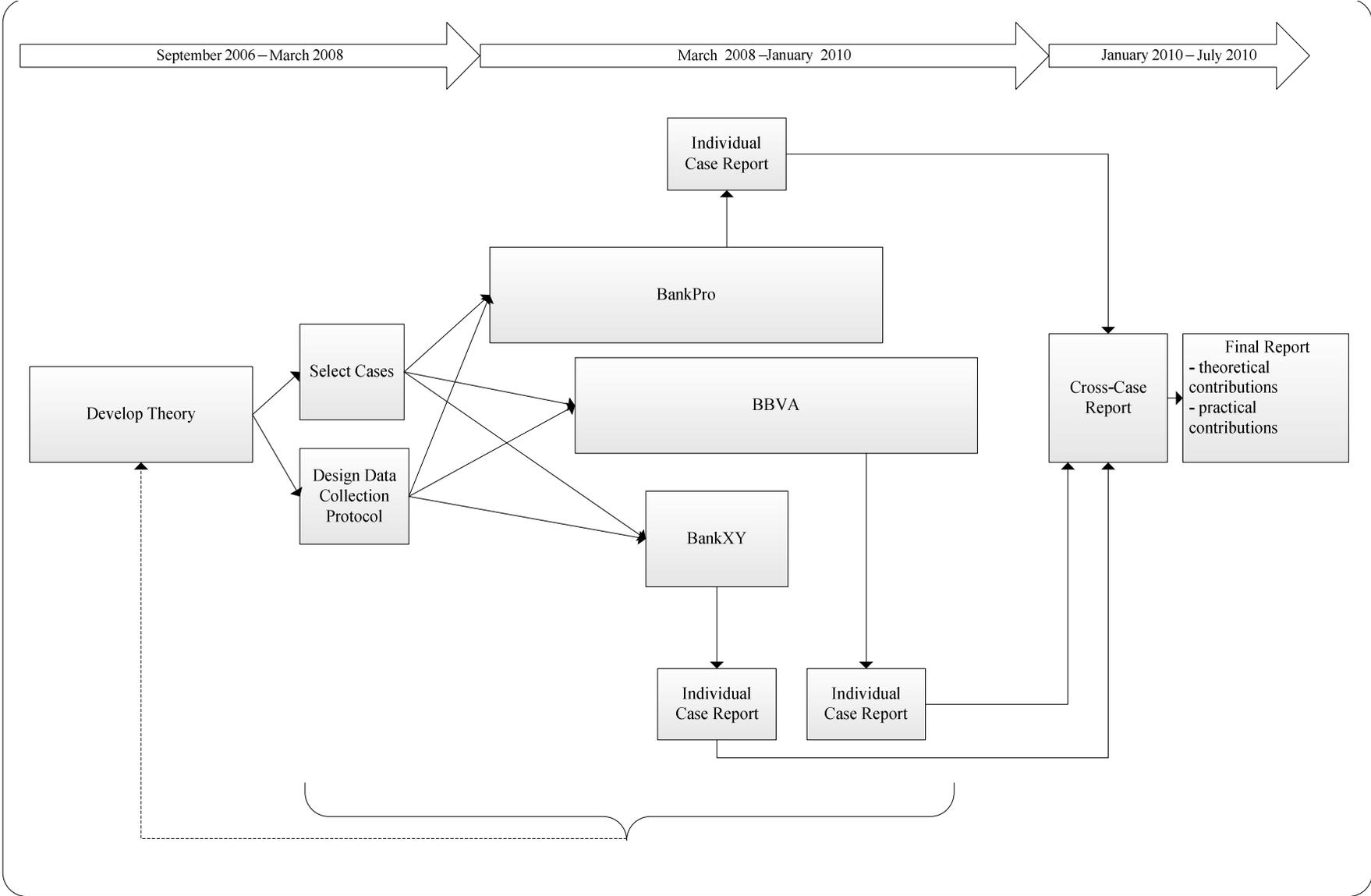


Exhibit 13: Operationalization of Research Design (adapted from Yin, 2003)

3.3.5 Data Analysis

After the first interviews had been conducted, the analysis of this data was already initiated in order to take advantage of initial findings in subsequent interviews. This initial coding was performed by moving constantly back and forth between the transcribed interviews, memories, internal documents, and literature. Initially open coding (Glaser & Strauss, 1967) was performed. This less formal coding with only some general theoretic concepts kept in mind, allowed to identify new themes and codes in the data. If I would have started the coding process from the very start with a strict and static list of theoretical concepts, the generation of new theory would have become limited (Glaser & Strauss, 1967).

Hence, while on the one hand this initial open coding allowed for a rich and broad identification of themes in the data, on the other hand it resulted in high number of initial codes. An intermediary list of initial codes is shown in the Annex. The following exhibit shows an exemplary interview transcript alongside some initial codes identified in the shown text.

The exhibit displays a text editor window with an interview transcript on the left and a list of initial codes on the right. The transcript includes the following text:

122 R.: Ja es ist auch definiert, was ist nur ne Produktvariante, und was ist ein neues Produkt,
 123
 124 H.: und abhängig davon sind auch die Aufgaben und Ziele?
 125
 126 R.: Aufgaben und Ziele? Na klar man muss ... wenn wir ein neues Produkt haben, dann wäre das ja auch ein neues Geschäftsfeld eventuell, muss man natürlich EDV mäßig ganze Controlling Systeme in Richtung Vertrieb muss man neu justieren, erweitern, entsprechend. Oder man muss es abbilden können in einem Altsystem, als Unterpunkt entsprechend aber klar abgrenzen. Aber der entscheidende Punkt ist das Risikomanagement. Also wenn wir ein neues Produkt haben, wo wir in ein neues Geschäftsfeld wo wir noch keine Erfahrung haben oder da reicht ein nur neues Produkt, es existieren noch keine Erfahrungswerte, dann müssen bestimmte Simulationen gemacht werden. Was wäre wenn. Und wenn wir ein vorhandenes Bausparprodukt haben, da gesteht man uns zu da sind wir Profis, wir müssen bei jedem neuen Tarif natürlich auch ne Simulation über 30 Jahre machen, aber das ist trotzdem kein neues Produkt, das läuft in dem bekannten Rahmen.

127
 128 Bei einem neuen Produkt können wir ja nicht sagen, wir haben schon eine gewisse Erfahrung, also liegen entsprechend höhere Risiken vor, die dann auch konsequenter und durch im Prinzip alle tangierten Bereiche, was heißt das Bilanztechnische, was bedeutet das Geldanlagepolitik und so weiter, viel gründlicher geprüft werden müssen. Und zumindest müssen bestimmte Dinge definiert werden. Und das ist quasi vorgegeben durch Prüfungsvorschriften, und Risikomanagement, auch auf europäischer Ebene. Und wir versuchen natürlich auch aus eigenem Interesse, diese Prüfungsvorgaben möglichst zu übertreffen, weil wir natürlich auch nicht blind in irgend ein Risiko reinlaufen wollen.

129
 130 H.: Sie hatten mir mal berichtet, von eine Conjoint Analyse. Grundsätzlich solche Tools. Können Sie mir dazu noch etwas berichten? Können Sie mir vielleicht hierzu schildern, welche Mechanismen Sie nutzen, um in Ihrer Produktentwicklung zusätzliche Sicherheit, oder zusätzliche Dinge auszuschließen oder Potenziale zu erkennen, wie auch immer.

131

The list of initial codes on the right includes:

- Budget & Resources
- Challenge
- Characteristics NEW SERVICE
- Experience
- Risk of NSD
- Characteristics Incremental New Service
- Analysis
- Characteristics NEW SERVICE
- Risk of NSD

Exhibit 14: Initial Coding Example

After this initial coding phase, the preliminary codes were analyzed again and became synthesized into more encompassing themes. This process of axial coding (Glaser and Strauss, 1967) similarly was highly iterative in the sense that this analysis was also performed by moving constantly back

and forth between the data and theory. At the end of this second analysis, the single absorption phases, their dynamics, and facilitating and inhibiting factors became visible more clearly. This reduced list of codes comprising the process and facilitating / inhibiting factors then was used in order to go again through the data in order to identify more evidence and examples for each code, which refers to selective coding (Glaser and Strauss, 1967). An example of the grouping of the initial codes in order to arrive at the final codes is shown in the following exhibit. Thereby each single, preliminary code again comprises several quotes itself.

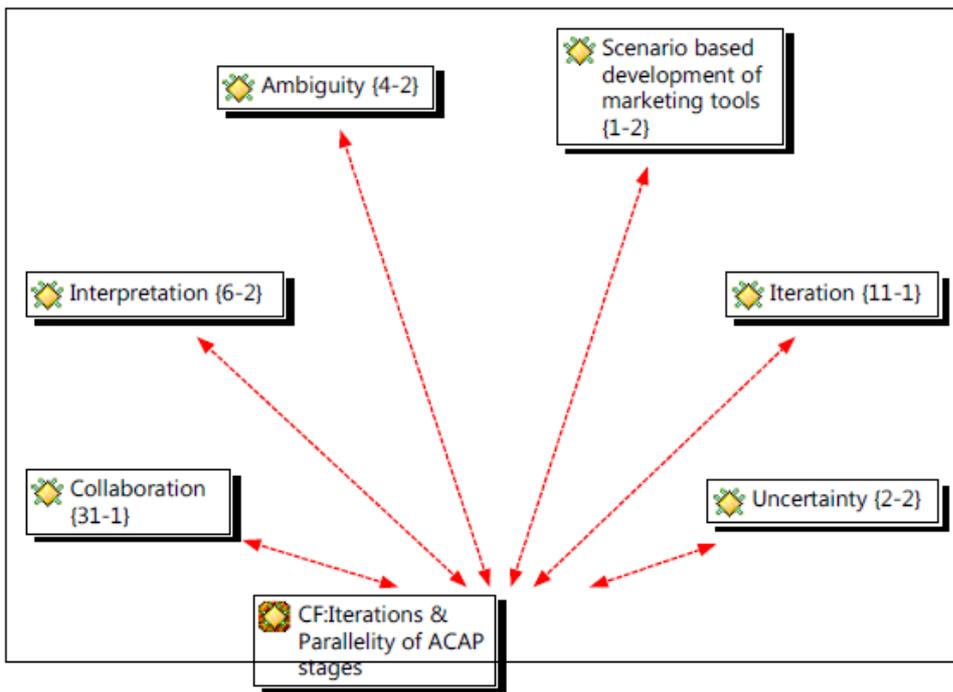


Exhibit 15: Example of Code Synthesis and Re-grouping

The analysis of the data was facilitated by making use of the ATLAS Ti 5.0 qualitative research software package, through which I could store, re-evaluate and group emerging themes from different data sources. This storage device thereby facilitated to maintain retrievable connections between the single quotes found in the various interview transcripts, and the final codes. As shown above, several times, a final code consisted out of various sub-codes which again were built up from multiple quotes found in different data sources. By having had the possibility to store these connections electronically, complexity was reduced which facilitated overall analysis and interpretation of the data.

Thereby, intermediary results of my analysis were presented and discussed constantly with my supervisor, and were presented several times during the regular meetings in the GRACO research group in order to obtain additional feedback and comments. Further, these intermediary results were also exposed to feedback and evaluations during several scientific research conferences, including SERVSIG 2008, EGOS 2009, EURAM 2009, Academy of Management, 2009, and Frontiers in Services 2009. Finally, these findings were discussed twice in the PhD research forum at University of Cambridge in late 2009. The final list of absorption related codes is shown in the following table.

Code	Characteristics	Source
Recognizing the value	<ul style="list-style-type: none"> Scanning and monitoring of the firm's environment Collection of industry information Search 	Lichtenthaler, 2009; Lane et al., 2006
Acquisition	<ul style="list-style-type: none"> collaboration with external institutions technology purchase 	Lichtenthaler, 2009
Transformation of internal KL-base	<ul style="list-style-type: none"> Change of internal, already existing knowledge structures 	Todorova & Durisin, 2007
Transformation of external information	<ul style="list-style-type: none"> Understanding Interpretation Comprehension Adapting /Fitting of external knowledge to internal expertise 	Zahra & George, 2002, Todorova & Durisin, 2007
Application	<ul style="list-style-type: none"> Use Implementation 	Cohen & Levinthal, 1990, Zahra & George, 2002
Iteration	<ul style="list-style-type: none"> Feed-forward, feedback Repetition of phases 	Van de Ven et al. (2008) Crossan et al. (1999), Stevens & Dimitriadis (2004)
Prior Knowledge	<ul style="list-style-type: none"> Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge) 	Cohen & Levinthal (1990) Easterby-Smith et al., (2007)
Nature of external knowledge	<ul style="list-style-type: none"> Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data) 	Szulanski (1996), Cohen & Levinthal (1990)
Mindset	<ul style="list-style-type: none"> Appreciating external information (in contrast to „not Invented here syndrome) Being aware of the need to adapt 	Cohen & Levinthal (1990), Menon & Pfeiffer (2003), Todorova & Durisin (2007)
Social Integration Mechanisms	<ul style="list-style-type: none"> Structures supporting the sharing and interconnectedness of different internal expertise areas 	Van den Bosch et al. (1999), Zahra & George (2002), Todorova & Durisin (2007)
Cross Boundary Expertise	<ul style="list-style-type: none"> Complementary functions within the organization ought to be intermeshed redundancy in expertise 	Cohen & Levinthal (1990)
Power Relations	<ul style="list-style-type: none"> Relationships involving the use of power and other resources by an actor to obtain his preferred goal 	Easterby-Smith et al. (2008), Todorova & Durisin (2007)
Network of external partners	<ul style="list-style-type: none"> Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship 	Powell (1998), Lane et al. (2001), Van Wijk et al. (2001), Larsson et al. (1998)
Firm Size	<ul style="list-style-type: none"> Revenue, number of employees 	Lichtenthaler (2009), Arbussa et al. (2007)
Intellectual Property Rights	<ul style="list-style-type: none"> Low degree of protection mechanisms available to shield service innovation from imitation 	Mendonca et al. (2004), Miles (2006)

Table 10: Foundation for Codes / Data Analysis

In addition to the above shown list, the coding of the performance and the degree of newness was done on the basis of leading frameworks found in the service innovation literature. Analysis of the degree of newness of the service projects has been based on Gallouj & Weinstein (1997) model of service innovation, while the assessment of the performance of the innovation projects followed deBrentani's (2001) or Adams et al. (2006) conviction to include both internal and external indicators, such as development time and market share / profitability. Regarding the coding of the performance of the innovation projects, evidence for their degree of success varied in quality and quantity, necessitating a case by case decision of the researcher, as to how perform the performance assessment.

3.3.6 Validity and Reliability

Case study research can be judged regarding its scientific quality on several grounds. Yin (2003) proposes the use of the following concepts: construct validity, internal validity, external validity and reliability.

Construct Validity has been anticipated in the research design by means of using multiple sources of evidence. In other words, the data collection did not rely exclusively on one type of source, but incorporated interviews, observations and internal as well as external documentary data collection. Data triangulation has been established by combining these different sources, therefore mitigating threats to construct validity. Especially the here chosen dual methodology of conducting both retrospective and longitudinal cases fostered construct validity, as the longitudinal cases constituted an adequate way to derive precise definitions of the constructs, while the retrospective cases could be used for demonstrating whether these identified relationships between the constructs were consistent (Leonard-Barton, 1990).

Internal validity is *not* present in a study if a researcher incorrectly infers that a causal relationship exists between factor X and factor Y, while in fact another factor caused the effect of factor Y. The multiple case methodology chosen here supported the internal validity of the research project, as an identified phenomenon in one case could be directly assessed in the other cases, allowing for continuous moving forward and backward and pattern matching (Yin, 2003). According to Leonard-Barton (1990), the matching of ideas between retrospective and longitudinal case study modes allows for better evidence of such hypotheses relating to causal relationships than matching ideas only between retrospective or longitudinal cases.

External validity refers to the ability of the findings to be generalized beyond the immediate case study. Differing from survey research which is focussed on statistical generalization, case studies rely on “analytical generalization”, which again allows for generalizing from the case study findings to a broader theory (Yin, 2003). The conditions under which this kind of generalization can be performed by the researcher necessitate the use of “replication logic” in multiple case study design. This refers to the desired situation if the findings of additional cases are consistent with the specifications of the underlying theory as well. As this study was conducted with three cases involving an overall amount of five innovation projects, the prerequisites for the analytical generalizability of the study’s findings were fulfilled.

Finally, *reliability* refers to the objective that a later investigator will be able to arrive at the same findings of the study if he follows the same case with all steps of the research in the same way as the first researcher did. Although it is not possible to “freeze” the social setting and the circumstances of case studies (Bryman and Bell, 2003), it is possible to avoid excessive degrees of ambiguity in the conducted steps of this study. To ensure this, it is necessary to document the research activities at the most detailed level, including the genesis of the data and all procedures the researcher followed in his study (Yin, 2003; Flick, 1998). In this study, a case study database was established with the help of analytical coding software (AtlasTi) and included case study documents, tabular materials, the researcher’s narratives about his experiences, and the mostly audio taped and always transcribed records of conducted interviews.

3.4 Limitations

Although the research methodology took into consideration several design choices in order to reduce potential threats to the study’s internal and external validity as well as to its reliability and validity, there are still limitations to the study.

To start with, qualitative research is in general considered to be less powerful than quantitative research as no random sampling or at least random assignment to treatment groups takes place and thus no statistical generalization to a wider population is possible (Bryman, Bell, 2003). While this cannot be changed, this research involved findings from several cases, which, after cross case analysis, could be used to contribute to the wider theory by providing more detailed accounts of the studied phenomenon. Hence, while lack of generalization limits this research, the findings can be

used to further advance the theoretical understanding of external learning and service innovation (Yin, 2003).

Further, due to the idiosyncratic nature of the different cases, a replication of the here presented findings by other researchers in the future is limited (Stenbacka, 2001). This pertains largely to the open ended interviews which did not incorporate highly concrete questions in order to allow new insights. This may limit the ability of future researchers to replicate the findings presented here. In order to alleviate this limitation, data from the interviews has, however, been presented in a grounded way so that a chain of evidence (Yin, 2003) has been established, starting from the basic findings presented in the single case reports and ending in the cross-case analysis of the different projects studied. In addition, data has been electronically stored in order to make it retrievable for future inquiries.

Further, social desirability may have emerged from the fact that data collection took place with the consent and support of senior management. In other words, it cannot be guaranteed that interviewees responded during the interviews in ways which could have been due to the interviewees' anticipation that certain responses could be not desired by top management. This could have led to potential omissions, but also to overly focusing on positive aspects of the interviewees' work (Marshall & Rossman, 1989). This indeed constituted a dilemma for the research undertaken, as on the one hand the involvement of senior management may have reduced the willingness of interviewees to respond freely, while on the other hand senior management support was needed to obtain the possibility to freely move inside the organization and to collect information from every organization member regarded as a significant source of information for the purpose of the study.

Yet, from the experiences the researcher made during his interviews, the threat of dishonesty on the part of the interviewees due to social desirability seemed not highly present. In fact, as undesired innovation outcomes were accepted by all organizations, the risk was reduced that organization members would restrain from omitting potential drawbacks. This became evident in the fact that not only successful cases could be observed during the data collection, but also that struggling cases were reported by the interviewees. Further, due to the fact that interviewees were assured that their statements could not be directly linked to outcome of the study, the interviewees' fear of answering non-desirably was further reduced.

An additional limitation of the research is rooted in the basic challenges of interview-based research methodologies. When interviews are conducted to obtain insights into an event or activity which lies in the past, interviewees may have forgotten about certain aspects (Harris & Brown, 2010). More specifically, in the interviews conducted for the Inno-Card project, recall issues may have been present because the activities inquired about lay in the past. The attempt was made to reduce this threat by asking multiple former project members about the same activities in order to generate sufficient overlap between the interviewees' responses. If statements were identified to be contradictory or reported in considerably differing ways, they were not used for further analysis. In the other cases, interviews were conducted very close to the actual events under study, as the projects which were researched were still ongoing.

A further limitation of this study constitutes the inclusion of both German and Spanish case study firms in the data analysis. This may have led to constraining effects of the respective national culture on the ability of the various case organizations to absorb external knowledge. While no direct analysis of the national culture was performed in this study, in general two aspects are worth mentioning. First, by having included organizations from different national contexts, this may even have increased the external validity of the findings, as the identified findings were not bound to a single nation, but were observed to be valid under different national contexts as well. This is also supported by the reasoning of other researchers discussing case study research. As suggested by Eisenhardt (1989), when the same phenomenon and its explanation can be achieved even in differing contexts, this lends support to the overall strength of the research results. For example, Eisenhardt provides to the reader the example of a study by Harris and Sutton (1986), who chose cases from four categories, i.e. private and dependent, private and independent, public and dependent, and public and independent. Through their broad case selection, according to Eisenhardt (1989), the authors of this research were able "to extend the theory to a broad range of organizations." (Eisenhardt, 1989: 537) Due to this, the limitation of the study of not having analyzed in-depth the potential cultural differences has been alleviated to a certain extent, thereby opening up future research opportunities.

3.5 Concluding Remarks on Research Design

As Yin (2003) noted, when designing a research project, multiple decisions have to be made by the researcher in order to be able to contribute to the growth of scientific knowledge. Many of these decisions also have to be made prior to any data collection in order to ensure that the later field

work and the resulting empirical data are capable of forcefully answering the initial research questions. Otherwise an investigator is in danger of being misled and failing to contribute to his profession. I anticipated this threat with this research design and presented a thorough discussion on the elements that needed to be taken into account when conducting empirical data collection. In so doing, I firstly presented a discussion on the appropriateness of various research methodologies for different types of research interests. Due to the nature of my research questions, this discussion enabled me to derive that case study research is most appropriate for providing answers to my research question.

After having positioned my research this way, I took a more detailed perspective on my research design and presented the different dimensions on which the researcher has to make decisions in order to create a robust research framework. Among these dimensions, decisions were made on the necessary unit of analysis, the number of cases studied, the selection criteria, the use of longitudinal or retrospective perspectives, as well as decisions regarding appropriate data collection techniques and the time schedule for conducting the field work. This definition of my research methodology alleviated and anticipated many threats to the validity of my findings and also allowed me to stay focussed on my initial research questions during all stages of my field activities. The final table below summarizes the major decisions which represent the character of my research design:

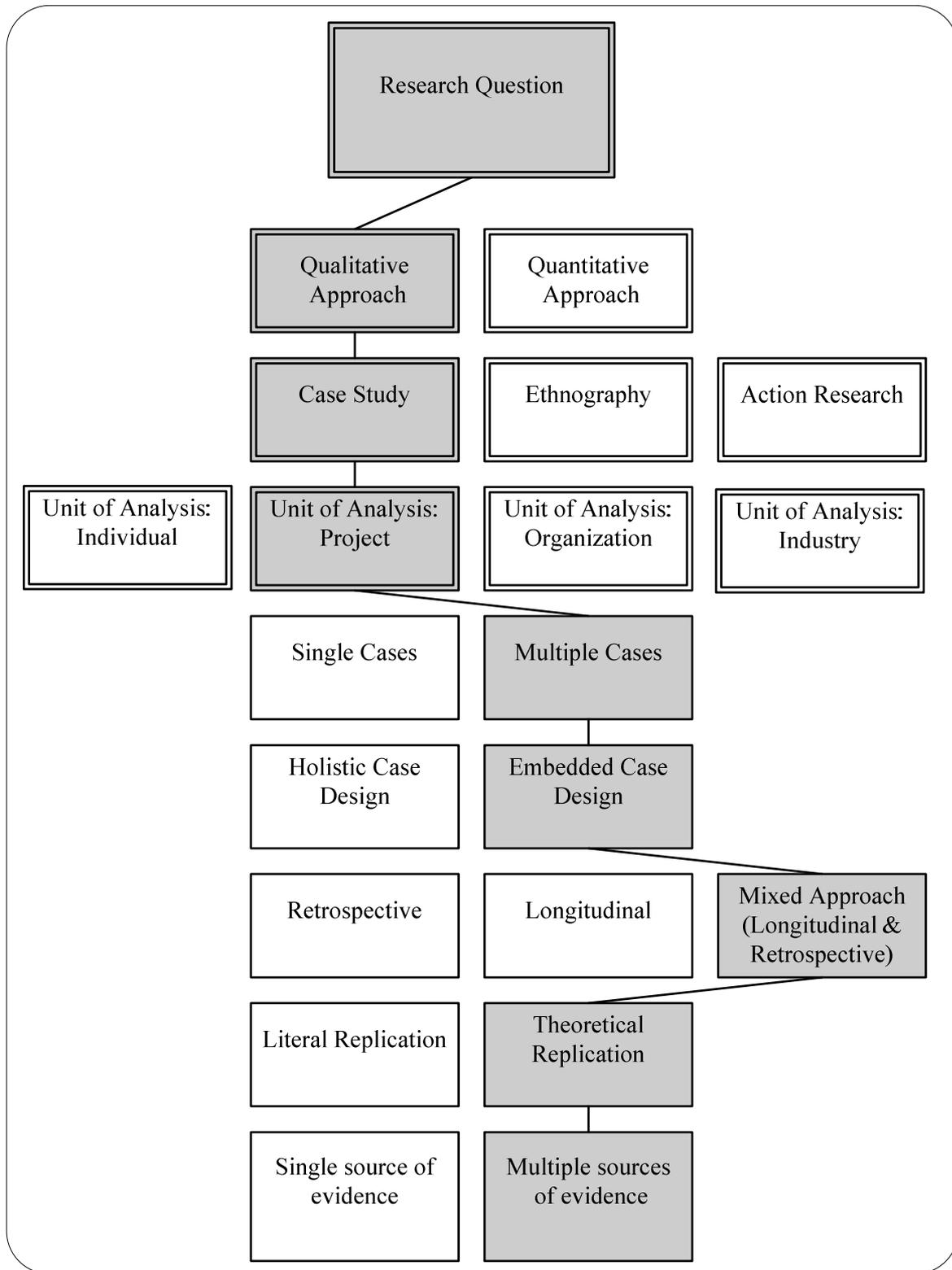


Exhibit 16: Summary of Decisions in Research Design

4 Case Study Report I: BankPro

4.1 Context of Case Study

4.1.1 Description of Case Study Organization

BankPRO is a retail bank whose headquarters are located in the city centre of a medium sized German city. The company was established in 1931, is owned by the one of the largest banks in Germany, and has its head office in Frankfurt am Main, Germany. While the parent organization serves as the central organ for more than 1000 cooperative, yet liberal, banks spread over Germany, it is additionally responsible for financial services to institutional and business clients. Retail oriented financial services are procured by BankPro itself, where this case study research was conducted. In figures, BankPro has a workforce which in 2008 totaled 15,000 employees, of which half were located in Germany and the rest in other countries. Of the German workforce, half are employed as administrative staff, while directly employed bank sales personnel made up approximately the other 50%. In addition to the directly employed sales force, BankPro is present with its service offerings in nearly all of over 1000 cooperative banks. In 2008, BankPro had over 6 million customers with a current contract base amounting to more than EUR 200 billion. In 2008, for example, BankPro generated new contracts worth over EUR 46 billion which can be divided into three individual financial service categories, making BankPro the market leader and largest home savings bank in Germany. The largest category constitutes home-saving contracts, in which customers can take advantage of a government-supported combination of savings and loan options. During an initial period of the home savings service, the customer saves an individually defined amount of credit, which is supplemented in a second period by a loan provided to the customer by BankPro. In this category, BankPro generated EUR 8.6 billion in 2008. The second largest service category concerns regular loan options, mostly without a prior saving period. In this category, BankPro generated EUR 6 billion in 2008. Finally, in the third category, BankPro offers its clients “additional provisionary services”, which includes providing additional financial services, such as investment funds and other specific loan options of other financial service organizations. According to the general management of BankPro, 2008 was the most successful year in the company’s history in terms of sales.

4.1.2 External Context

BankPro as a home savings bank was observed to be positioned in a market with a considerable degree of institutional regulations. On the one hand, BankPro needed to adhere to the prevailing regulations for the general banking sector (BaFin – laws and regulations) whereas, on the other hand, BankPro's operations have been subjected to additional regulations by a special law, the so-called the "Home Loan Bank Act". This legal framework regulates aspects such as the nature of home saving banks, their permitted business activities, as well as how home saving banks are allowed to invest the savings of their customers. In principle, it can be argued that this "law for home saving banks" limits the action radius of such banks to a greater degree than conventional retail banks are normally regulated.

Yet, while such regulatory aspects play a major role as regards the business activities of such specialized retail banks in Germany and other countries, these idiosyncratic characteristics also offered opportunities to BankPro. In particular, these increased regulations shielded BankPro from a negative impact of the financial turmoil in 2008 and the following year. Due to the fact that BankPro as a specialized retail bank had to adhere to several limitations, it was not permitted to invest its customers' savings in the same way as regular commercial banks had done in the past years. In particular, BankPro was only permitted to re-invest its customer savings in ways which were regarded as highly conservative, leading to the bank not being overly affected by the financial crisis. In fact, due to the conservative investment strategy, many customers were additionally attracted, which led to one of the bank's historically highest surpluses in 2008. Induced by these profitability gains during the financial crisis, BankPro could advance its market leader position in the German market. *"The business of [BankPro] boomed during the financial crisis. While the German citizens fled massively away from stocks, [BankPro] achieved in the last year [2008] with Euro 32 billion the highest sales from new clients in its history."* (Translated from www.welt.de: 20.01.2009)

However, the competitive context of BankPro remained as competitive as in prior times because many competitors of the bank had also been obliged to pursue a conservative investment strategy, leading to a generally low impact of the financial crisis in the whole sector of these specialized retail banks. Further, although BankPro has been market leader in its market segments for many years, its position was constantly challenged by other retail banks. *"We have a comfortable position, but we have to remain highly cautious to ensure that we not only defend our market*

position but continue winning market shares. We have a defined goal of 30% market share; now we have achieved 29.4%, so we still have to do a little bit. And once we have achieved 30%, then we will certainly have a new goal.” (Head of Service Development, 306:307)

4.1.3 Internal Organization of New Service Development:

Organization of New Service Development

At BankPro, the development of new services has been organized in a defined development process and has its origins in an effort in 2000/2001 to fundamentally revisit and redesign the processes and activities implemented in the marketing department of BankPro. At that time, challenges frequently arose due to the fact that the product lines pursued by BankPro were organized in separate departments dedicated to either home purchase savings, home financing loans, and additional provisionary services. This departmental structure was observed by interviewees to create certain challenges, as the independently led product lines created conflicts regarding overarching interests. Frequent tensions and the individual goals of the various product lines were hindering the achievement of the firm's overall goal. Due to this lack of parsimony and common goals, BankPro revisited its organizational structure and, starting from a re-engineering effort in 2000/2001, an organizational structure was envisioned which was not based on product lines, but rather on processes. The first institutionalized overarching marketing process had been CRM⁸-based data warehouse management, since marketing was not capable of responding to the general market trend in retail banking to market its services through customer relationship management oriented procedures. Resulting from this change project introducing CRM-based data warehouses and marketing strategies into the marketing division, two years later (2003/2004) BankPro adopted the highly successful process-oriented project management structure based on this first project.

This project management process strategy was based on institutionalized project meetings which included the introduction of novel project communication strategies. This resulted in fixed briefing and de-briefing project information processes in order to increase the overall speed of these marketing activities. Apart from improving the flow of information, this briefing-debriefing project management organization in which formal internal clients and internal service providers were being held more explicitly accountable, was also transferred in a third step to the internal marketing

⁸ Customer Relationship Management

agency (“advertising” department). At the same time, this project management approach was designed to function identically, regardless of whether it was pursued in brand management or in advertising, which is also reflected in the fact that all documents referring to “briefing & debriefing” which were designed for the information flow practices look exactly the same in all the active projects at BankPro.

After this process oriented project management approach had been successfully implemented in these two departments, it was finally also applied to the activities residing at the product management department in 2007. However, this was done by way of designing a formal product development process which, at first, was realized by separating the three product lines into specialized departments for each product line. Finally, in 2008, these three sub-departments were consolidated into one large product management department, headed by a single product management leader. Through this re-design of their marketing activities, all the sub-departments began to work according to the same rules and overall time-to-market, and decision making within the development activities was considerably improved, especially regarding the collaboration between product development and the other two marketing departments, brand management and advertising. However, although the governing mechanisms of the product management activities at BankPro changed considerably, the internal staff did not change. In fact, it was reported that the core team made up of product development and management remained stable for several years, leading to an incremental but continuous increase of internal know-how and expertise.

Hence, both at the time of data collection and now activities for developing new services are carried out in the marketing division of BankPro, namely in the product management sub-unit as well as in three other marketing subunits: brand-management, customer base, and advertising (an internal marketing agency). *“A total of 120 people are employed in marketing. Brand management includes core brand management, mass communication such as the company’s general webpage and magazines, and market research, including competition reports and trend research. The customer base subunit is responsible for direct marketing, customer relationship management, and new customer acquisition via lead management approaches, as well as the management of the sales support IT systems for the sales force. The third sub-unit, advertising, deals with the translation of developed concepts into communication strategies, such as the design of brochures, point of sale equipment, interior design elements, give-aways, catalogs and so forth.”* (Division Manager 3:1)

Finally, at the time of data collection, the product management subunit occupied 30 employees dedicated to the management, maintenance, and development of existing and new service offerings. In general, the product management department was divided into two broad task categories, i.e. market managers and product developers. On the one hand, the market managers were responsible for the definition of target groups, for customer response, and the steering of other marketing departments. In addition, the market managers briefed the other departments on activities in advertisements, online marketing, communications to sales force and banks, client mailings, and prospects. On the other hand, the product developers worked according to a defined product development process. The product developers were highly specialized people who were experienced in ideating, conceptualizing and developing new financial services. This personnel also held responsible for the respective development projects in which specialists from different departments worked together in order to bring new ideas to reality. Apart from this, while the market managers were constantly in touch with other BankPro departments as well as with the operational sales force, product development activities were protected from daily operations to ensure they would not be overly influenced by short term trends and demands.

“Due to the fact that three different product lines are in operation at BankPro, employees from both market management and product development specialize in one of the three product lines. However, due to the fact that in the third product line “additional provisional services” products are being sourced from third-party financial service providers, product development staff has only been established in the two major categories, home purchase savings, and home financing loans. For this reason, both market managers and product developers are active in two of the three product lines.”
(Interview Department Head- 2:2)

In addition, BankPro established a decision board in order to supervise, evaluate progress, and decide upon resources and further support of ongoing development projects. This board, called “PECO”, supervised all development projects and was led by the director of the marketing division, accompanied by the head of product management. Additionally, at least one, but frequently two or all three members of the executive board of BankPro were present. These members met with project and project stage-specific experts every six weeks.

“PECO functions according to its own formal rules and regulations. It was established due to the, at times considerable, time lags experienced when trying to schedule product development-related topics in the agendas of the executive board and hence serves the purpose of concentrating activities and creating a specific forum for service development at BankPro, in order to shorten

decision cycles and thus increase the time to market of the development projects.” (Interview Divisional Manager Marketing, 75:95)

The Official Development Process

For two years, the service development activities have been guided by a formal service development process in which the service development teams report to an institutionalized executive committee and work according to a five-stage development process. Each development project starts with the generation of ideas in order to collect thoughts on which services could add value to the existing service portfolio at BankPro. On average, BankPro reported having collected 100 ideas each year from sources such as direct customers, collaborating retail bank outlets, their own sales staff, internally employed personnel, the executive board, as well as ideas directly envisioned by the service development staff. In addition to these sources, which on average sum up to less than five ideas being finally implemented, potential service ideas also are being sourced from politics, and general market trends acquired by conducting continuous market research activities.

Starting from this pool of ideas, the service development staff analyzed the viability of available ideas, constituting the first stage of the service development process, called “Pre-Analysis/ Draft Concept”. Within this project stage, service developers discuss their thoughts with fellow colleagues and create a first draft of a service concept to be presented to a specialized service development process committee made up of divisional managers and members of the executive board (the PECO committee referred to above). Preceding this presentation in which the decision is usually taken as to whether to follow up this idea or discard it, or put it “on hold”, respectively, the service development process definition has put necessary pre-conditional work packages in place which have to be completed upon presentation at the first PECO meeting. Among these are the description of the anticipated future service offering (product development department), communication of the idea to other departments which may become involved in the anticipated project (product development department), pre-evaluation concerning general relevance to BankPro’s business activities (controlling), identification of market potential (market research department), processing analysis (sales department), involvement of IT systems (procurement & technology departments), consequences for service delivery process, i.e. sales process (customer procurement department), preliminary revenue calculation (controlling department), informing the finance department, planning of involvement of revision & legal departments, and calculation of how the service idea could affect other financial service concepts (collective-management department).

Of these activities, in particular the evaluation of the plans to develop a new service by other possibly affected departments should be noted. This information process includes, but is not limited to, a specific document being sent to these departments so as to not only “brief” them of future plans; additionally, this activity includes a formalized feedback process in which each department that may be involved in the future has to “de-brief” the product development department about their evaluation of the viability of the planned project. In sum, 10 departments have to send this feedback to the product development department. The formal character of this briefing and de-briefing in such an early phase of the development process may, at least partially, have been induced by the fact that banks such as BankPro are forced by law to engage in certain risk management practices. In general, this entails every financial service organization in Germany having to adhere to certain risk management strategies set up by the German “Bundesbank”. This has resulted in specific evaluation activities which, at least at BankPro, are conducted within the scope of the briefing and de-briefing process explained above. Besides general feedback about the benefits of the service idea for BankPro, criteria also have to be filled out for ascertaining whether the anticipated product fulfils the following criteria:

The anticipated service can be developed: (yes or no answers)

- with the existing know-How
- via the currently deployed processes
- with current operating-instructions
- with current technical equipment
- with current accounting procedures
- with the existing procedure for risk measurement, risk management, and risk monitoring

Table 11: Pre-Evaluation Criteria for New Ideas at BankPro

Based on this evaluation, the final assessment concerns the definition of the project as concerned with the development of either a “new product”, “product variant”, “new business model”, “new market”, “new sales channel”, or several of these at once.

In addition, questions regarding legal and operational risks need to be assessed and a final “overall” evaluation of the planned project has to be delivered by each department. One consequence of this

evaluation procedure is the fact that, “*all that goes into it [PECU-committee] is clearly committed to all departments*” (Marketing Division Manager), thereby reducing overall time-consumption within these executive boards, as all parties involved know each other’s standpoint prior to the executive committee meeting.

Once these numerous preceding steps have been accomplished, the project moves into the first official PECU committee meeting at which members of the executive board as well as middle managers decide, according to established rules and regulations, whether the project will receive formal support or not. The PECU committee was set in place in order to shorten decision cycles (before PECU, decisions had to be taken by the executive board, which took considerably more time due to time constraints). Every six weeks this committee meets, and each committee meeting involves discussion and evaluation of several topics related to new service development. However, not all decisions are taken by the PECU. Depending on the scope of the project under examination, decisions may be transferred to the executive board. Regardless of whether decisions have been taken by the PECU with or without the involvement of the executive board, the results of each PECU meeting are reported to the executive board on a regular basis.

Upon approval of the first pre-draft of the new service development concept, the development project advances into the second step of the development process. This stage includes more detailed analyses related to the following aspects:

- Detailed project plan
- Strategy/Marketing concept
- Specification of service concept
- IT Processing
- Market research (potential, sales forecast)
- Clarification of legal constraints
- Anticipation of accreditation procedure (BAFIN – official German accreditation body for financial services)

Table 12: In-Depth Analysis of Service Ideas at BankPro

After this detailed analyses which, due to the therein included market research activities, counts as the second most expensive stage of the process (after market introduction), the results of this

detailed scrutinizing and conceptualizing of the service concept are again presented to the PECU executive committee who take decisions on the further path to be followed. Once this stage-gate has been passed, the project moves into the realization stage, in which the responsible service developer hands over responsibility to a specialized market manager. However, the service developer remains in the team until the new service has been finally introduced to the market, as service developers are still responsible for supervising the IT programming needed to include the new service in the sales support systems. Notwithstanding this exception, the market manager assures that the service concept is operationalized in the form of appropriate marketing instruments such as internal and external training documents, websites, etc. If necessary, the project is again presented to executives, though this time not to the PECU committee, but directly to the executive board. Then a potential pilot test is envisaged in the formal development process at BankPro, in the course of which the service concept, the marketing mix, the procedures and the business plan behind the service concepts are subjected to pre-evaluation through market pilot tests prior to market launch. This stage has, however, not been practised in the recently accomplished development projects. Finally, the new service is introduced to the market, entailing a constant cost-income ratio and sales analysis, as well as the identification of potential improvement opportunities. The following exhibit summarizes these stages of the BankPro innovation process.

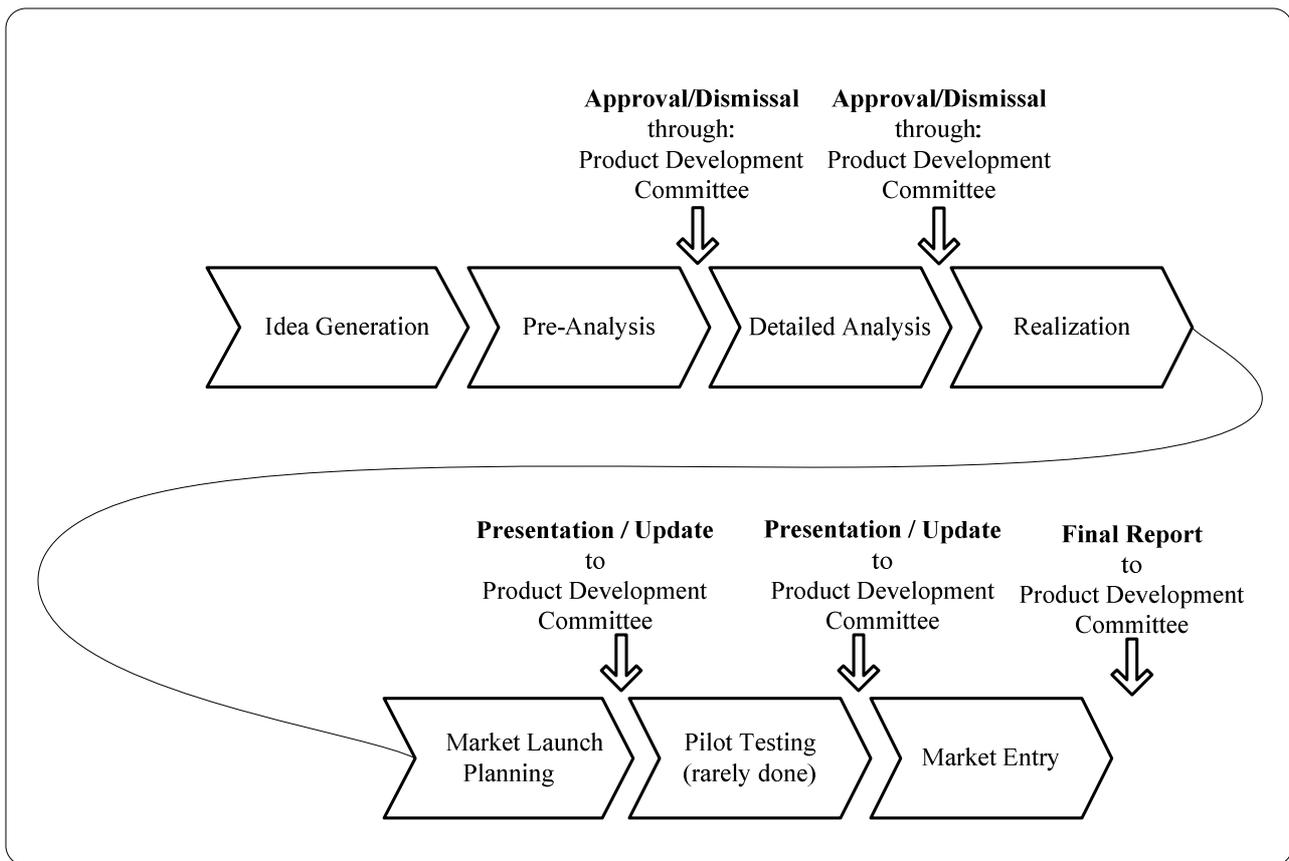


Exhibit 17: BankPro Innovation Process

4.1.4 Observed Service Development Projects

At BankPro, several innovation projects could be reviewed prior to deciding which project the in-depth investigation would focus on. As this research aimed at illuminating both radical and incremental service innovations, one radical and one incremental innovation project was chosen to be analyzed in depth. Additionally, the selection was based on whether the new service had already been launched on the market or whether the development was still active. In consequence, both projects presented here were still ongoing when data collection started.

Wohnriester

The first project observed during the initial period of the longitudinal research conducted at BankPro originated from a governmental act, resulting in the opportunity for German citizens to add real estate property used for personal living purposes to their personal and fiscally supported private retirement plan. After considerable evaluation and discussion periods, the project was formally set up in July 2007 and was initiated immediately after the German government officially announced *it would start thinking about* supporting personally used real estate as an accepted pathway for saving for later retirement. As it was thought that other retail banks dedicated to home

loan savings would also soon become aware of this change in the legal framework of home loan business, BankPro put a lot of emphasis on being the first to develop financial services focused on exploiting this new market opportunity.

This development project was set up as a priority in BankPro's development portfolio because of the awareness that other competitors would also be trying to develop similar services to exploit this opportunity. Altogether over two million euros were invested in this project, involving one full time project leader and the constant involvement of nearly all departments at BankPro. The Wohnriester project defined two escalations, resulting in a first financial service offering finalized in November 2008, and a second introduced to the market in January 2009. The overall development time totalled 1.5 years caused, among other things, by the necessity to conceptualize and develop from scratch totally new internal processing mechanisms. In addition, novel sales approaches were called for as the legal changes facilitating the development of this new service did not permit building on already existing procedures and knowledge. Instead, the development team as well as the sales personnel had to create a new understanding of how this opportunity might be transferred to a new service and how this service could be marketed and explained to the customer. *"And this constitutes a real challenge: To transfer a completely new product, with totally new systems, into the mindsets"* (Product Developer, 306:306)

Online Business

At the end of data collection in 2009, the Online Business project had not yet been introduced to the market. The project consisted of various sub-projects which were designed to be launched on a one-by-one basis. Consequently, several small developments were pursued within the project, all directed at broadening the online business segment of BankPro. *"And I estimate that we will approach this topic on a step-by-step basis"*. (Marketing, 6:26) The sub-project with the closest launch date constituted the integration of BankPro's online banking information into a larger online banking tool which grouped all partners of a major bank association together. With this tool, customers were thus to receive a holistic overview of their financial activities and relationships with the bank association's members. Other sub-projects constituted new service offerings, tailored directly to the specific circumstances of online business. In this case, concepts were envisaged which focused on simplified services which could be understood without consulting a financial sales representative. *"We will grow into this in an organic way. There will not be the big shot immediately, [...] to optimize the online contract information for the client that would be the first*

step. [...] The second step would be to introduce an eyecatcher in order to offer a calculation tool. Well that is considerably, really considerably in advance of the online-contract [service offering]. (Lawyer, BankPro, 2:7).

4.2 Project 1: Wohnriester

4.2.1 The Development Process of the “Wohnriester Project”

In 2007 and 2008, one of the major development projects at BankPro constituted “Wohnriester”, a project involving nearly all departments operating within the organization at the BankPro headquarters. Based on new legal regulations, BankPro strived for introducing a radically new service which would allow its clients to save funds for building real estate and – at the same time - using this saved capital at the same time as part of their personal retirement plans. Hence at the core of this service, considerable tax-advantages were envisaged to be made possible for BankPro’s clients.

The project was started as a formal development project in July 2007, although the general topic of this service idea had already been observed by BankPro for a significant time. The initial impulse for starting the project therefore came from the political-legal apparatus of the German legislation body. In addition, BankPro feared being outrun by one of their main competitors. Reasons for this anticipation of their competitor’s future actions were based on the belief that XYZ (main competitor), which had missed taking advantage of another tax-supported service opportunity in 2001, would now not forego this chance and would invest heavily in placing an appropriate product in the German market as soon as possible. (Head of Service Development)

Induced by this anticipated competitor activity, the development staff at BankPro engaged in initial analyses of the service innovation opportunity; this corresponded to the activities defined in the first phase of the formal service development process explained above. The development project started with a core team consisting of one person from service development as the principal project leader, accompanied by middle managers from the legal department, collective management (i.e. financial accounting) department, and controlling. Besides the full-time dedication of the project manager from the service development department, the other parties also reported that this project required a considerably higher investment of time and dedication than other prior development projects had

ever required. These statements were identified in all collaborating departments, i.e. law, controlling, and collective management. The project started in July 2007, and with even heightened levels of commitment in the time span between January 2008 and January 2009. (Head of Service Development)

Despite the novel character of this service involving the creation of totally new procedures, service delivery processes, and IT programming, the new service was not developed in all potentially feasible service variants; instead, only two core offers were developed due to limited resources. Indeed, as the team manager and supervisor of the project leader mentioned in one interview, it was the lack of sufficient numbers of people with the necessary skills which prevented this project from being developed in its full range of potential sales opportunities. Notwithstanding this resource scarcity, which at least partially limited the scope of the new service project, in the pre-evaluation phase of this project each of the involved departments delivered their evaluation of the project from their respective perspectives, which included legal, financial, marketing, and controlling oriented evaluations. (Head of Service Development)

After initial evaluations had been made, and the first PECU meeting resulted in the decision to pursue this project, project members faced another challenge. Due to the fact that the foundation for this service was rooted in a change in the legal regulations of one related tax-supported retirement plan law, most of the project members could not readily understand the significance of the anticipated change in the legal system. This resulted in the fact that the legal department at BankPro moved into an even more important role within the development project. Lawyers at BankPro tried to analyze the anticipated change and explain the core impact of the affected laws on the development effort of BankPro to the other project members from marketing, controlling and financial accounting. Through their proactive interpretation of the law, project members from the other departments were capable of performing their parts and fulfilling their duties in the projects. This situation of dependence on the expertise and know-how of the legal department became even more aggravated when the project team noticed that the national body responsible for implementing and finalizing this legal change was not proceeding quickly enough, thereby delaying the development efforts. The team had to resort to basing their design of the service concept on a draft version of the legal concept. Induced by this inherent risk of developing a service concept on a foundation which might be subject to considerable change in the near future, the project team increased their collaboration with the legal department and met on a weekly basis over the course of several months in the first half of 2008. (Head of service development)

Behind this increased collaboration lay the motivation to be as close as possible to potential advancements made in the finalization of the legal framework and to be readily able to incorporate all new information available on the final version of the regulation act of the German central financial body. In this respect, the legal department played a vital role in analyzing developments made in the external legal context and translating it into the organization. This uncertainty induced by the non-reliable foundation of the service concept was already active in the pre-analysis phase of this project, and continued until the very end of the project.

This was due to the fact that the final version of the legal regulation was published in July 2008, meaning that over 1.5 years of the total 2 years of development were based merely on the interpretations of BankPro's legal department and pre-versions published by the regulatory body. The uncertainty at BankPro concerning the threat as to whether the designed service would correctly mirror the regulations made also continued after the final version of the policy was published. As is defined in the "realization" stage of the service development process of BankPro, each financial service has to be accredited by an specialized official body of the German regulatory mechanism. Once the final version had been published, BankPro submitted its service development concept to the accreditation body. However, the accreditation process was not finished until one day before market introduction of the service (01.11.2008) as certain corrections and adaptations were to be made on behalf of the official accreditation institution. Although BankPro received support from the general association of home saving loans retail banks in the form of an exemplary accreditation document which could partially be adopted for their own accreditation documents, communication between the financial accounting department (i.e. collective management) and the accreditation body was active until the day before the market introduction. This led to considerable difficulties in the preparation of documentation and advertising relevant to the marketing mix, as sections which had previously been accepted by the regulatory body were, in part, belatedly withdrawn and hence disturbed the production of important advertisement and contractual documents needed for the service delivery process. In one instance, ten days before market entry, the legal body informed BankPro of the withdrawal of a previously accepted description of the legal aspects on the part of the customer when purchasing this new service. Once this information was received by the collective management department, immediate communication to the product development manager was initiated, finally leading to a last-minute cancellation of a document of which many thousand were to be printed. (Head of service development)

In addition to this confusing communication between BankPro and the regulatory body, the communication within BankPro between the marketing and sales divisions was seen as a challenge. While at a certain stage the service concept was becoming more and more transparent for the marketing department, this knowledge about the potential of the new service as well as the details of how to consult with and sell this new service to the final customer raised considerable questions on the part of the sales staff. Due to the novelty of the service and the differences in the service delivery process (consulting process of the sales person in interaction with the client), the marketing department decided to collect the most prevalent questions from the sales staff and initially created an FAQ in order to concentrate and collect the experiences made regarding the information needed by the sales staff. This document originally contained around 10 questions, but these quickly rose to around 100 questions by January 2009.

Finally, after the service had been introduced to the market, BankPro engaged in comparative analyses of other retail banks which had launched the service simultaneously and collected data on the design of the service in terms of concept, legal framework, and pricing in order to receive first feedback. In addition, first analyses were conducted in order to improve the initial design of the internal service processing structure.

4.2.2 Performance of the Wohnriester Project

In order to assess the performance of the Wohnriester project, an internal and an external perspective is being applied in this section. Firstly, the performance of the project in terms of the achievement of the internally defined project goals was analyzed, and in a second step the market performance of the project. As regards the internal performance of the Wohnriester project, I compared the milestone plan, which was communicated to the researcher in an earlier stage of the project, with the actual market launch of the new service in a later point in time. In addition, statements relating to the project performance in the data were coded. Concerning the external market performance, external documents such as electronic magazines and newspapers were reviewed in order to ascertain the reaction to the new service in the market. Moreover, statements made by the interviewees concerning the success of the project in the market were included in order to arrive at an overall evaluation of the success of the project.

Regarding the project performance, an exact fit of the planned market launch milestone and the actual market introduction date was observed. It was planned for the service to be introduced on 1st

November 2008, as communicated by the PECU innovation board: *“Yes marketing, the responsible for the product development process, requests a “go” from the product development committee [PeCu]... in order to start with the project. [...] Officially it is then announced, “ok, interesting idea”, or, “we have to do this”, like Wohnriester, that was compulsory, “we have to be part of it, as a market leader, in November”.*” (Controlling, 021:021). Indeed, this milestone was accomplished by BankPro as the head of service development stated: *“It was very well received [by the market]. We started on 1st November.”* (Head of service development, 293:294). Besides the accomplishment of the internally defined time plan, the defined sales expectations were also achieved. *“And overall, in sum, the latest figures I know are from the end of May, concerning the sold Riester products in terms of numbers and volume, we are on the level of our market share.”* (Head of service development, 295:295) Hence, taken together, the Wohnriester project can be evaluated as a successful development.

In addition to the evaluation against internal goals, the Wohnriester innovation was not only successful in the internally defined project goals and market expectations, external experts also evaluated the new service as superior in comparison to other, similar financial offerings. In mid-2009 “Stiftung Warentest”, the largest German product testing organization, evaluated all existing financial offerings with features similar to the Wohnriester service offered by BankPro. After rating the different offerings, BankPro’s service took the first position among 8 specialized home loan saving banks and 20 other financial institutions offerings this kind of service.

Finally, while BankPro had calculated with a total number of 50,000 contracts for the year 2009, by September 2009 70,000 contracts had already been signed, amounting to a more than 40% outperformance of the internally defined goals (article “die Welt”⁹).

Taken altogether, the Wohnriester project accomplished the internally set goals in terms of time to market and surpassed the performance expectations by 40%. As the Wohnriester service was additionally rated as the best service among 28 other offerings, the overall performance rating of the project is very positive. The following exhibit summarizes this evaluations.

⁹ URL: <http://www.welt.de/finanzen/article5344264/Wie-Sie-mit-Wohn-Riester-zum-Eigenheim-kommen.html>

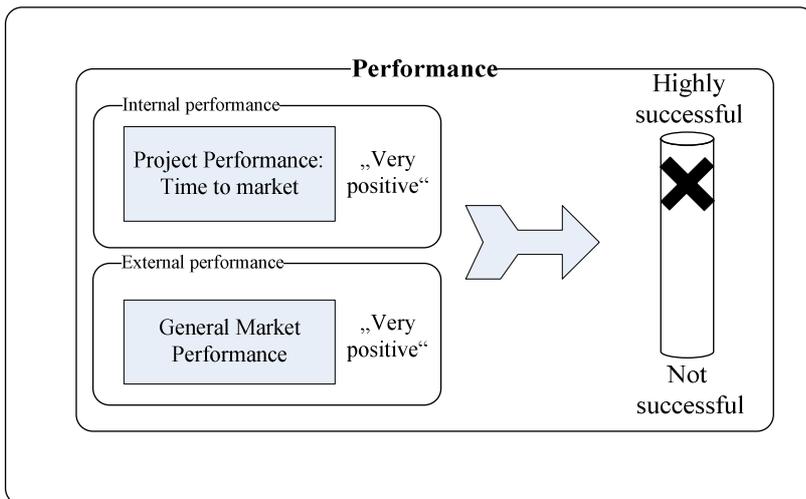


Exhibit 18: Performance Wohnriester Project

4.2.1 Degree of Newness

As already described in the literature section, the assessment of the degree of newness is based on Gallouj & Weinstein's (1997) theory of service innovation, in which they present different service dimensions. Depending on the magnitude of change in these dimensions, the authors define different degrees of newness for service innovations. Accordingly, the degree of newness here is likewise being assessed by the degree of change in the defined service dimensions, i.e. provider competencies, client competencies, and the technical characteristics of the service.

To begin with, interviewees reported that, basically, all areas of the bank were affected during the development of the new service. *“This [kind of service] is not yet on the market, has never existed in this way before, and as a result we have to illuminate all corners in our organization and have to see where this project or this product will have consequences.”* (Product developer, project leader, 46-46).

In a similar vein: *“It started approximately last summer, in June, July 2007; and then with high pressure from the start of this year. This is a project which encompasses the whole company, all the divisions that have anything to do with home loan savings, also the subsidiaries which are doing the IT deployment, ... are affected, involved, and in all project meetings and on all the steering boards and PeCo's we also have to report to the board of directors.”* (Product developer, project leader, 40-42).

More specifically, as regards the technical characteristics of the service, especially the algorithms for calculating and operating the new service within the processes and mathematical models at BankPro had to be newly developed. This became evident in the fact that prior to the Wohnriester service BankPro operated six distinct services focused on home loan savings. With the Wohnriester project, a seventh, much more complex, service was added which demanded a redesign of the understanding of classic home loan savings services, as the new service was also eligible to be used as part of clients' retirement plans and hence had a many times larger time horizon for both the bank and the customer. Due to this, as well as other characteristics of the service, new procedures needed to be added to the back-office organization within BankPro. *“Wohnriester has to be regarded as being separate [to the other services]. It has completely distinct aspects. And this is of course particularly laborious for us, ...”* (Mathematician, 41:41). Besides the mathematician in charge of the calculation logic for the Wohnriester service, the project leader of the Wohnriester development project also argued: *“Wohnriester is a completely new product, completely new processing, approach, topic. All the parties involved have first had to look into the draft of the law in order to understand what will be [tax] subsidised. And this constitutes the real challenge: To transfer a completely new product, with totally new systems, into the mindsets.”* (Project leader Wohnriester, 306:306).

Consequently, as exemplified in the above quotes, internal procedures, algorithms and IT systems had to be newly designed in order to allow for the deployment of the new service. As result, the degree of change in the technical characteristics of BankPro was considerable.

As regards provider competences, here too, considerable changes to the existing set of competences were needed in order to become capable of delivering the Wohnriester project. More specifically, the sales force needed to understand and learn the distinct characteristics of the Wohnriester service. One interviewee in marketing argued: *“This [the training of sales representatives] took some time, but I think this is legitimate for a new product of such complexity. And that was the challenge with this product; to make it clear to the sales representatives that it was not a complicated construction, but that it was actually an attractive product for the client.”* (Project manager marketing, 735:735). In a similar vein, the head of service development stated: *“Well, I think the main aspect was that the whole product family [Wohnriester] is relatively complicated, so simply needed to be explained because of the tax support. And due to this, the sales representatives and banks had to be very well prepared. And this simply took time.”* (Head of service development, 313-315)

Hence, sales representatives had to add to their existing competences a new ability, namely to explain this new service to the client. As reported by various experts inside BankPro, this new service did not merely demand an update of already existing competencies, but sales representatives had to start from the beginning, as the novel characteristics of the service were unrelated to prior financial services offered by the bank. All in all, data suggests that the service dimension of “provider competencies” was made up of several novel elements that had to be included.

Finally, the degree of change within the client competencies was also analyzed. In this case, the degree of change in terms of introducing novel elements into the client-provider relationship was present, especially due to the long life-span of the new Wohnriester service. The novel service comprised the opportunity for clients to save money for the later purchase of real estate with the additional option of a fixed-interest-rate loan. This characteristic already existed in similar BankPro services. Yet what changed the interaction with the client was the additional feature that the very same financial product could also be used for personal retirement plans. *“We sell it with the aim [for the customer] to purchase real estate, but he could also take it for generating a pension. If he says he does not want to buy a home, then he stays [with BankPro] until he retires. If he says he wants to buy a home and later says he does not want this any more. [...], then he stays with us until 68, or until he retires. With this plan we have a very long customer retention... .”* (Mathematician, 41:41) As a result of this, the relationship with the client was considerably extended and offered the client novel ways to interact with BankPro, as the client would be free to decide on the purpose he/she intended to use the Wohnriester service. This decision could be taken at any point in time during the customer’s entire life-span, and resulted in novel routines, within BankPro as well, to respond to these future interactions. Hence, in a way, the clients’ capabilities were altered, too, as the client obtained new choices and new options for interacting with his financial service provider over time.

Taken together, several novel elements were added to the set of technical characteristics, to the provider competencies, as well as to the client competencies. According to Gallouj & Weinstein’s (1997) definition of innovation types, radical innovations necessitate a complete re-design of all elements of a service. From this, it ensues that for a radical innovation no elements may be used which already existed before. Since the majority, yet not all, elements of each dimension were changed within the Wohnriester project, it is argued that the Wohnriester project may still be called a radical innovation, though not located at the very extreme of the incremental-radical continuum. It is positioned more within the domain of radical innovation because too many elements were

exchanged to constitute an incremental innovation. The following graph depicts the position of the Wohnriester project on a continuum from improvement to radical innovation.

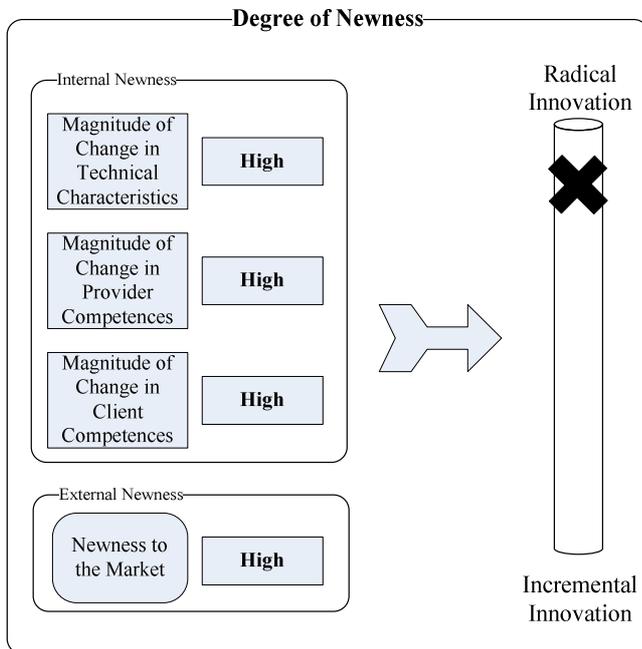


Exhibit 19: Degree of Newness Wohnriester

4.2.2 The Absorption Process during the “Wohnriester” Project

4.2.2.1 Recognizing the Value / Identification

Within the innovation project carried out at BankPro, the external learning process started with the identification of an upcoming legal change by the experts residing at a financial association with which BankPro was affiliated. This association issued statements about the general importance of the upcoming legal change to the affiliated retail banks, as considerable opportunities could arise. In fact, this association observed, on a continual basis the the banking industry in order to be able to respond quickly to upcoming changes.

One reason for this was the fact that the specialized retail banks affiliated to this association were particularly susceptible to being affected by legal change, as their business models are partly based on tax-related opportunities for their clients. Through the association’s recommendations to its members to focus on the potential legal change, BankPro gave this topic priority on its annual agenda, and initialized a project in the product management department. *“If you take the project*

Wohnriester, this was simply the political side, the legislator....the legal story was the driver...namely that the self-used real estate is to be considered as a retirement arrangement. This we did not want to miss” (Product developer A, 1:110)

After top management had decided, together with product management and marketing, that this opportunity was to be considered as strategically important, the Wohnriester project was formally started in summer 2007 and became a major development project throughout 2008 until it was launched in two service product offerings in November 2008 and in January 2009.

At the beginning of the project, the development team consisted of members from different departments and with various professional backgrounds. The project leader appointed was a product developer from the main development department – which again was located in the marketing department - as well as one market manager from the general marketing division, and experienced personnel from financial accounting, legal, and controlling were continuously collaborating with the project leader over the course of the project.

After this initial external trigger for the development of a new service was received by BankPro, information on the prospective legal change was collected by the project team led by internal lawyers employed directly by BankPro. As the legal change was affecting all banks offering specific home-loan financial services, the impact and urgency of this change for the bank was clear to the project members. “...we could not let the market be taken over by our competitors just like that” (Product developer 1:110)

As the magnitude of change became evident through the identification of the upcoming legal change, further activities for starting a new service development project were initiated, also resulting in the further acquisition of other information, not directly related to the legal consequences. As this change offered BankPro significantly altered opportunities for market penetration, this information also sparked interest in learning more about how such change could respond to customer needs. In consequence, the information relating to the upcoming legal change also initiated the absorption of external market information in order to learn more about potential new opportunities. “And market research was, of course, also involved. In that way we then noticed that there was something going on, something that had major implications for us and then the question was: when do we start...?” (Marketing expert, 37:37)

4.2.2.2 Acquisition

However, after creating this high awareness of the importance of looking for external information related to the legal change, project members needed to engage in new ways of information collection in order to better understand the nature and scope of the legal change. In earlier development projects, the legal department was accustomed to supporting service development projects by establishing the legal foundation of the financial services based on a given set of various laws, including civil law, laws on business terms and conditions, among others. *“Normally it is the case that I have a law text, for example, this is the fundamental basis for us, and then we have the other laws, ..., and most of it happens in this field.”* (Lawyer, BankPro, 26:1)

In the case of the development project observed here, however, information acquisition differed from the standard approach to new service development at BankPro. At BankPro the prospective change in the legal framework and the resulting opportunities for the firm were regarded as unique and demanded new ways of information acquisition. *“This was something which would never come again”*. (Lawyer, BankPro, 26:1) Due to this, the legal department needed to accompany the progress made at the national governing body in a parallel manner in order to assure that BankPro could react as quickly as possible so as not to face the threat of other competitors, who would also be affected by the change, would introduce a new financial service earlier than BankPro. *“Wohnriester has absolute priority, also because our other competitors are forcing this extremely and in this respect we do not want to be last and say that we do not have a product ready on 1st November. If you want Wohnriester, then go to XY [competitor]. As a market leader, we have to avoid this.”* (Product developer, project leader, 106:106).

Due to this urgency, specialized project members started to look for early information on the prospective law and acquired draft versions of the law. In more detail, experts from law and from financial mathematics, which form own departments at BankPro, worked together on these information acquisition activities. *“There existed many different drafts [of the law]. There we were involved especially with regard to financial-mathematical issues [...] We work very intensively together with the legal department* (Financial accounting department team leader, 20:20)

In addition, the ambiguity of the information accessible by BankPro was considerably high, as various drafts were produced by the national ministry on a frequent basis. This led to the situation that the project members at BankPro could not know with certainty whether the information they collected would suffice as a stable foundation for advancing the overall design of the new financial

service based on this. *“Due to the fact that the legislator was, firstly, not in agreement as regards all the parts, and whether they wanted “Wohnriester” at all, and then fixed this in a formal law relatively late, in July this year [2008], we were working on the product development and making conceptual thoughts the whole time between summer last year and July this year, on a subject which tomorrow could be non-existent. If the legislator had said we would not do it in this legislation period, then we would have invested one year of effort which would not have achieved anything”* (Product developer, project leader, 1:155).

The last quote also illuminates the time-span during which BankPro acquired information. Although externally oriented learning efforts started at the very beginning of the project, externally directed learning activities needed to be maintained throughout more than two-thirds of the whole development period. During this time, the legal department involved in the project searched continuously for new information outside BankPro in order to integrate potential advancements in the definition of the law in the project as well as to learn about the interpretations of other interest groups in the bank industry concerning the impact of the legal change on services that were also offered by BankPro. The acquisition process carried out by the lawyers at BankPro was both direct and indirect. The legal department at BankPro communicated directly with lawyers residing at the external bank association and, in addition, a formal lobbyist reported to the head of the legal department in order to advise him of trends and progress within the legislation apparatus. *“Mr X [the lobbyist] is also very important in order to find out things that are written “between the lines”. When we receive such a law draft, you do not always know exactly why this one has been created. And this is very important, to receive additional information which sometimes illuminates why something was done the way it was done.”* (Lawyer, 21:21)

In addition to these activities, the responsible product developer acquired ready developed forms and documentation about a similar legal change by which one of BankPro’s partner organizations was affected. Through internal networks, the product developer contacted colleagues who were working on a separate product line (additional financial services) which managed externally sourced financial products. As a result of the close collaboration by this segment with a partner organization which was affected by a legal change in earlier years, the product developer received valuable documents through his internal contacts on how this partner organization accomplished certain development activities which were also needed at BankPro. Consequently, BankPro was able to acquire external knowledge which saved the team from having to develop again certain aspects which had already been developed by others for similar purposes. *“Especially in relation to*

Wohnriester, company CV had already created know-how, because this legal issue has in principle existed since 2001. They are also market leaders in their market. And there are certain issues in which we tried via our colleagues in the third product division, our contacts who were being approached through our department head Mr. OO, to get information so as not to “re-invent the wheel”. In this case, we resorted to their know-how and competence.” (Product developer, Project leader, 351:351). In addition, this partner organization was also actively developing new financial services related to the very same legal change which had triggered BankPro’s development activities, and BankPro considered them very fast and reactive to these current changes, inducing an additional information exchange related not only to former legal changes, but also to the recent one. *“But it was just that when nothing [related to the legal change] was fixed yet and when nothing was transparent yet, they had also had with this and had asked themselves what it meant for them. And it had quickly become evident that it was a new opportunity, a new market, with a product which they did not have in their portfolio.”* (Product developer, project leader, 392:392)

Finally, in a standard procedure, the development project was supported by in-depth market research activities in order to reveal the market potential of the prospective service and, in addition, to define what product characteristics would be the most important to potential customers. In this respect, an additional influx of new information was triggered by classic market research activities. This acquisition of market information was, however, not only done at the beginning of the project, when various scenarios were being calculated in order to gain insight into the potential performance of the product and make certain assumptions with regard to the level of the interest rates. After the product had been launched in November 2008, various departments which were collaborating on the development of the new service gathered information on how BankPro’s direct competitors interpreted and calculated certain aspects related to the legal change. For instance, the financial-mathematics department as well as the marketing department collected existing and freely available contracts from which they could extract information revealing how others interpreted the law.

This information acquisition process on the part of marketing was different to the information needed regarding the legal change. A formalized, regular process which was carried out once a year within BankPro was used to acquire such information. In more detail, the financial mathematics department was assigned each year to collect information about different tariffs and options offered by competitors of BankPro. In the process, an additional effort was made to collect contracts entered into by each competitor which had introduced products based on the legal change. *“Well,*

once a year we collect the tariffs issued by all the other home loan savings retail banks; that is a totally regular process internally. And of course, on November 01, we collected all the Wohnriester contracts. These were analyzed and evaluated.” (Financial mathematician, 141:143). The results of this search on how competitors approached the new legal change, and how their designed services differed from BankPro’s services, is shown in the following table.

Zusammenstellung der wichtigsten Bewertungskriterien

Bauspar- kasse	Umfang der Tarifizierung ¹⁾		Gebühren ¹⁾			Bonus- variant e	VÄ ²⁾ eingeschränkt
	alle Varianten	teil- weise	AG in % BS	Kto. Geb. in €	AW- Geb. in €		
		x(1)	1,0	---	100	x	x
	x(3)		1,6	30	---	x	x
	x(3)		1,0	12	100	x	x
		x(1)	1,6	12	? ³⁾	---	---
		x(1)	1,5	12	---	---	x
	x(6)		1,0	9,20 (5)	100	x	x
	x(8)		1,0	9	100	x	---
	x(6)		1,0	18	---	x	---
		x(5)	1,0	18	100	---	---
		x(1)	1,0	15	100	---	x
		x(4)	1,0	12	100	---	---
		x(5)	1,0	18	120	x	x
	x(7)		1,0	6 (2)/18 (5)	100	x	---
	x(6)		1,0	18	---	x	---
		x(4)	1,0	12	75	---	---
		x(5)	1,0	18	75	---	---

¹⁾Anzahl der Varianten in Klammer

²⁾ VÄ = Vertragsänderungen

Table 13: Competitor Analysis (internal document) of BankPro

In addition to the competitor analyses, customer preferences were also sourced by conducting inquiries at the customer level. Such information was used in order to ascertain what market opportunities could emerge from potential new services which would respond to the legal change. Yet, due to the already described uncertainty of the legislation process, different target groups needed to be illuminated in order to assure that sufficient market knowledge from diverse sets of potential target groups would be available in order to respond in time. “We always had an immense

degree of uncertainty in this topic, because the drafting of the new law took a long time and was only finalized very late. As a result, we never knew exactly how, for example, young people would benefit” (Marketing expert, 107:107)

Hence, similar to the acquisition of legal information, market information was gathered several times a year. On the one hand, this was due to the constantly changing legal foundation for the new service, as described above, whereas, on the other hand, a concurrent acquisition of market information was necessary in order to comply with the progress of the service development. While in the first stages of the innovation process rather exploratory information was sourced in order to identify customer needs and market niches, in the later phase feedback was sought after in order to ascertain whether the developed service concept would be favoured by BankPro’s clients. One such regular feedback mechanism during later stages of any development process are constituted by so called “Roadshows” at which the BankPro sales personnel are invited to comment on new services. *“In fact I do a so called “Roadshow” twice a year at which I see all the managers of the BankPro sales force.”* (Head of service development, 187:187) In addition, senior management of the product development unit invite sales representatives and directors of affiliated retail banks to several events a year. As these banks constitute the business clients for BankPro, in order to sell the newly developed services to the final customer, their feedback is reported as highly important in order to receive feedback on the marketability of newly conceptualized services. *“Then between me and my superior we invited all the banks in Germany to bank forums.... And about 70% of the [affiliated] banks came. And we presented a topic... the discussion is not so easy there, but nevertheless you can get feedback on how things are accepted there.”* (Head of service development, 189:189)

4.2.2.3 Transformation

As shown above, BankPro engaged in various ways of acquiring external information for their development project. Yet, these different methods varied considerably depending on the degree to which this knowledge needed to be integrated in the project’s existing areas of expertise, reflected by the many experts in the various departments involved in this project. In addition, it was observed that several integration activities occurred at different stages of the development project, or re-appeared when the project moved from the project level to the market, i.e. the integration of the new product in BankPro’s portfolio and training of the sales staff who needed to exploit the new product in the market. In addition, it was observed that prior to the translation of external technical

information, the internal knowledge base itself needed to be transformed in order to allow the novel information to be fully understood. Such internal updating of the various expertise areas was, however, not observed during the absorption of market information.

To begin with, a considerable challenge with respect to the integration of external information into the development project was observed to be related to technical information on the upcoming legal changes. Due to the very specific legal and financial-mathematic information, only experts from financial mathematics and law could make use of the information. Although the legal department at BankPro generally did understand the underlying rationale of newly available knowledge on the legal change, the lawyers needed to adapt to the knowledge influx with regard to their own areas of expertise. As the law was opening to BankPro a new market where new services could be launched, this also resulted in the necessity for the legal experts to start learning about novel legal domains which had not been relevant to their previous daily work or prior development projects. *“This [the legal change] was an extremely complex issue. ... Because up till then, home savings loans were aimed solely at financing private real estate. And then, in order to get into the tax privileged situation, we had to represent a life-long retirement plan in the contract. And this was, naturally, virgin soil for us. And in this respect we had to deal with topics which had no relation to what I usually did.”* [Lawyer, 333-339)

Once the expertise areas of these experts had been transformed, the translation of the novel information followed. Here, mathematicians and lawyers at BankPro collaborated with each other and, in sync, tried to find a common way to interpret and make sense of the information provided. *“In this case [Wohnriester] it was so that we had a relatively small group, particularly of lawyers, who had to interpret the legal texts and everything. And they translated the law texts for us as a mutual exchange so that we could deduce all this information for our daily work; like, ok, this has to be understood that way, and that has to be understood another way.”* (Product developer, project leader, (310:312)

As the above quote shows, the project members involved in the development of the new service were dependent on the expertise provided by internal lawyers, but not only the non-experts on legal texts had difficulties integrating the information into the development project. The internal lawyers and collaborating members from the financial mathematics department also faced considerable difficulties in understanding and making sense of the information available. *“This [the legal change] was an extremely complex issue. Because up till then, home savings loans were aimed*

solely at financing private real estate. And then, in order to get into the tax privileged situation, we had to represent a life-long retirement plan in the contract. And this was, naturally, virgin soil for us. And in this respect we had to deal with topics which had no relation to what I usually did.” [Lawyer, 333-339) This interpretation was, however, also not done solely by the legal department at BankPro, but in collaboration with the financial-mathematical department. *“The law can be interpreted in many ways, and especially now. There were different drafts, where we made statements, then we were asked about the legal aspects, but also with regard to legal-accounting matters. We always work very closely together with the legal department.”* (Financial mathematician, 24:1)

Interestingly, experts in law and financial mathematics mentioned, separately from each other, that their translation of the legal information into information retrievable for non-experts was facilitated by the cross-expertise which other project members showed during this project. In more detail, both experts from different backgrounds mentioned that other project members’ general expertise also included also certain knowledge about the financial-mathematical or legal context which subsequently helped them to explain and translate the highly specific information to the other project members. *“I really have to say that Person X [financial mathematician] or also Person Y [product developer] have a relatively good understanding of legal issues.... It is very important that such an understanding is developing and that people who work on the product also have a certain, not necessarily in-depth, basic understanding in order to be able to evaluate.... This facilitates the collaboration. Then you do not have to start at Pontius Pilatus all over again,You can explain things and they say, yes I understand.”* (Lawyer, 75:77)

However, the integration of information relative to the legal change was still not finished after a short time. In fact, all the project members, and in particular the product developer, the financial mathematician and the lawyer, needed to acquire and integrate such external information over the course of one year, more specifically between summer 2007 and July 2008. At times, this included meetings with all participants on a weekly basis in order to interpret what the recent changes in the legal frame of the new product would mean for its future design. *“This circle met on a permanent basis, weekly, ok?”* (Product developer, 1:155)

This intense integration effort within the development project was also reflected by the general intensity with which the project was being pursued in different divisions of BankPro. In all divisions which were involved, interviewees reported time-intensive work, extra hours invested and

higher work loads than usually necessary in past development efforts. Firstly, the team leader of the product development team responsible for the development of the product design argued, “*Now everybody has been tightly linked to and busy with the Wohnriester project.*” (Team leader home savings loans, product development team, 141:141). In a similar vein, the financial mathematician explained: “*Wohnriester meant extreme work... . 2008 was quite full with this. How many extra hours we did is difficult to say... , [in normal projects] 60 or 70 hours have to suffice, but Wohnriester was, honestly, three times that amount. It is difficult to assess because something new always cropped up. In 2009 we will also have a lot to do with this.*” (Financial mathematician, 24:5). Besides these project members, a collaborating controlling expert mentioned: “*The issue is always whether the product idea can be created with our existing instruments or if we have to programme something really new, like with Wohnriester. There we basically had nothing in the system that could first be integrated in the system.*” (Controller, 47:68). Finally, the lawyer assessed the work load for the project as follows: “*To do this [Wohriester] we have been in contact with the other colleagues on a permanent basis....yes, that was a major project*” (Lawyer, 51:65)

Several activities have also been identified regarding the transformation of market information . Yet, while the internal experts needed to update their expertise areas in order to become capable of transforming and understanding this novel information, such prior updating was not observed for market absorption.

Indeed , several translation activities were installed in order to transform the external information into more easily understandable terms. In this process, the specialized market research department supported the project members and development experts in understanding the market potential and the potential impact of the novel legal context. “*We receive from our market research department, for example, many analyses of how the market is going to develop in 2009. That is our basis. They supply us with everything, such as macroeconomic data, or interest rate forecasts focused on the new product and its target group. On this basis we look where opportunities for our product lie, but also what the risks are for the next year.*” (Marketing expert, 193:195) Further, these translation activities by the market research department were used by service development personnel during the whole development process, as in several cases the foundation of the new service changed due to the uncertain legal context. In such cases, additional information was sourced. “*We sit together for this purpose...and if we need more detailed information, we get it again from the market research department.*” (Marketing expert, 195:195)

4.2.2.4 Application

As already indicated in the third subprocess - transformation - the product development project could not be clearly divided into subsequent phases where preliminary search for external information was followed by an integration effort, ultimately allowing for the application of the acquired and transformed information. In fact, the observed development activities demanded a tight interrelation and at times a considerable overlap of the various phases. Especially where the absorption of legal information was concerned, the application phase overlapped with the transformation phase. Due to the fact that the information acquisition could not be limited to the beginning of the project, but rather needed to be maintained over two-thirds of the whole development project period, as described above, the exploitation of the external information via the development of a new financial service was performed in parallel to the acquisition. The following extract of one interview exemplifies this iterative nature between application and the preceding phases. *“You have to know the law was not finally approved until June this year [2008]. There were many discussions and development trends, sometimes to the left, sometimes to the right. I had to roll out the topic and evaluate it again and again from scratch. This accompanied us constantly because, politically, it was not clear in which direction it would go. [We started working]...on the basis of the fundamental conditions known at the time. And then new add-ons, or changes, modifications always appeared. Then we of course had to integrate this again and again into the product development process. A constantly rotating story....without clarity. Even now, not all things are clear regarding some details.”* (Product Developer 77:97)

Due to this considerable co-evolution of the understanding of the legal change and the development of the new financial service based on the same with the aid of the information received from the market research department, the project members resorted to new strategies for coping with this ambiguous situation. In the marketing division, for example, which had been collaborating in the product development project since the beginning of 2008, and where product information brochures and marketing campaigns were to be prepared, several alternative scenarios were designed to make sure that a variety of responses were possible for BankPro so as to allow for different development trends in the law definition process. Until the law was finally passed, it was, for instance, not clear whether certain customer target groups would be included in a law-inherent tax advantage or not. Because of this, several scenarios were designed which included these target groups, and other scenarios in which these were excluded. In a similar vein, marketing did not know whether formerly

sold products would benefit from the tax advantage and, if so, what effective date would be applicable .

It should be mentioned at this point that the development of the product was designed in such a way that it would be ready to be offered as soon as the law had been passed by the legislation body to ensure it was first on the market. For this reason, marketing and communication were not only active after the development of the product had been accomplished, as was customary; in this project, marketing already paralleled the development activities in order to be able to have product information and marketing campaigns ready as soon as the law became official. Due to this, marketing started with its tasks as early as February 2008, once a first reliable draft of the new law had been published by the national government. *“Well, in February there was this draft bill that we were basing our project on because it was already relatively concrete. Then, in March we went into action and communication started. That continued until about July. And then the law was passed, and there were again parts in it that we didn’t know prior to that, for instance, the parts about young people or the Riester contribution. Then we added another campaign, especially for young people; but we had already planned that all beforehand because we had defined scenarios. For instance, we said that in scenario 1 there is an exemption for young people, but none in scenario 2. And we said we would take the former in case 1 and the latter in case 2. This went on all the time so that we would really be able to react very quickly. Because that was the main challenge in this project: to be able to react immediately any info arrived or if any deadlines in the legal procedure had been passed. That’s why we worked with scenarios.”* (Market manager, marketing, 333:339)

In sum, the application of the externally sourced knowledge relating to the legal change was obstructed by the need to advance and develop an appropriate financial service during a period in which even the basic foundation was not certain for the development team. In consequence, due to the parallel acquisition, integration, and application processes at BankPro, no sequentiality of the external learning stages could be observed. Instead, everything appeared to happen in parallel, also because the final law was not passed by the legislation body until June 2008, a date when the development activities had already been pursued for one year.

In terms of concrete application activities during the development of Wohnriester, one was related to the implementation of the product concept in the internal procedures at BankPro, i.e. the integration of the new product and its financial tariffs into the main tariff calculation system. Here, BankPro already had over fifty different financial tariffs in its system due to the variety of financial

services offered. The challenge regarding Wohnriester was seen in integrating the novel service into the same system as the other 54 tariffs. Due to the fact that the “Tariff Logics” inherent in Wohnriester appeared to show considerable differences in the way they needed to be calculated and maintained over time, the department of financial mathematics needed to make use of the little information available on the new service and to illuminate how it could become integrated into this system. To accomplish this task, the persons in charge needed to evaluate over 100 different details of each (already existing) tariff in order to assess how the new tariff would fit into the larger system. Although many things such as complex regression analysis, were automatically calculated, the experts in this domain had to design a way of implementation which took into account the considerable variance of the Wohnriester service from the 54 existing schemes. Exemplary differences between the Wohnriester service and existing services included the retirement plan options granted to the client who had the opportunity to put his own Wohnriester service on hold in order to benefit from the saved credits later, e.g. after retirement. This option was, for example, not made evident by the system as such, and hence novel conceptualization and calculations of these idiosyncrasies became necessary.

An additional challenge in this respect was the increasing complexity of the whole calculation system. Due to the high number of existing tariffs and due to their interrelations (e.g. hedging, overall interest rate calculations), the complexity of the overall system increased once the new service had been integrated. This was, for example, observed as a result of the higher effort project members reported with regard to the time and effort required for controlling the summarizing matrices and underlying logics of the whole system. *“We do regression analysis, where a lot runs automatically. Nevertheless you have to look at the regressions, the formula for each single tariff, in order to see whether it really fits, or is there any outlier. ... So to speak, you always have things where you have to intervene manually, you have to observe certain things you only do once a year. Yet at the moment in which you are doing it, it is laborious.”* (Financial mathematician, 24:4)

Besides this laborious activity to integrate the new service into the general system of BankPro, other activities regarding the implementation of the new service also occurred. A lot of effort was put into the IT programming and implementation of a specific software, allowing the sales force to individualize the service offering to the specific client conditions. Typically, the task of writing the concept of the system was located in the product management division of BankPro, as also shown in the general product development process. Similar to other observed implementation activities, such as the described market introduction preparation, the IT implementation was also subject to

considerable time pressure caused by the already explained co-occurrence of new information on the new law and the concurrent development activities. Interviewees explained that the IT implementation for Wohnriester departed to a certain extent from the classical approach of IT-related development work in new product introductions.

At BankPro, changes to the IT systems were typically scheduled to be initialized 1.5 years in advance of the actual product launch. This was due to the complicated nature of the development and integration into BankPro's own IT infrastructure. Here, an outsourced, but 100% BankPro-owned IT service provider needed to be informed of the detailed design of the anticipated system. However, once the task had been understood and the program written by the subsidiary of BankPro, it was still only possible for the software to be implemented in the computer system of BankPro's own sales force. But as BankPro collaborated with over a thousand affiliated though individually managed retail banks, the integration of the IT solution into their respective systems took additional time. As these retail banks designed their own IT environment, BankPro needed to approach a centralized IT organization which was responsible for the operation of the IT systems in these affiliated retail banks. Due to the fact that these centralized IT operators had fixed update cycles of 6 months, and due to the internal effort at BankPro to prepare the IT concept and to program it for the internal sales force, the overall duration of such activities was normally scheduled 1.5 years in advance.

During the Wohnriester project, though, this commonly accepted time window could not be applied to IT development. Reasons for this were additionally found in the short overall development time and the delayed concept writing due to unclear information about the legal foundations of the prospective service. In fact, as the starting point for the development was February 2008, only 10 instead of 18 months were available for developing and implementing the new service in the IT sales support software. This led the project team to decide to develop a reduced version of the application, containing only basic calculation options without the full functional scope. *“At any rate, the greatest challenge was definitely the subject of IT. The topic of processing was alright, but when you know that the IT solution or the IT updates only take place every six months at most, and that it generally takes a year of preparation to issue even such an update, then it became a real issue. And then there was the second issue of bank systems into which the product was to be integrated so that consultancy and calculations could be carried out. That requires a considerable amount of time in advance. This put on immense pressure, it was really extreme.”* (Market Manager, 231:284)

Besides the challenge to develop such an IT tool within a time window that was considerably shorter than usual, the responsibilities for managing the IT development internally were also organized differently. Usually, a specialized department at BankPro took over the testing of the developed IT software. In the Wohnriester project, however, this department did not accept the role of being responsible for testing the software. Resulting from this, a marketing employee who was also associated with the development project, took over this task, and: *“and then I was suddenly responsible for everything. . . . That ranged of course from ‘what does the content look like? what is being calculated there? what images are in it?, test it!’ to having to organize for everything to go through IT testing, something that is normally not my job. And normally there is a separate department that deals with technology roll-outs, but in this case they didn’t feel responsible for the issue. The result is chaos. If anything has to be done fast, you have to deal with it yourself.”*. (Market manager, 221:241)

An additional area in which the novel information was applied concerned the integration of the new financial service into the service portfolio sold by the internal sales force of BankPro. In this case, the marketing experts needed to translate the complicated legal information into comprehensible statements for the sales force. *“This [legal text relating to Wohnriester] has to be integrated into the documents later. Up to now, the sales force does not even know the topic. They have to get the content prepared somehow so that normal people can understand it, and then we have to make translations of the law. And this [the law] is in the charts [we receive from product development]”*. (Market manager 2; 143:152)

BankPro developed a series of documents dedicated to different topics relating to the new Wohnriester product. Exemplary documents aiming at training the sales force included exemplary calculations of the new service for typical client characteristics, detailed information on the boundaries at which the new service was guaranteeing the customers a tax advantage, suggestions on how to approach and contact various target groups for the new service, potential risks for the clients to be taken into consideration when purchasing the service, comparison of the Wohnriester service with other, similar competitor offerings, and the already mentioned simple tariff calculator. Prior to supplying these documents to the sales force via the BankPro sales support system and email, members of the development project designed the training sessions as regards their scope and content. *“Basically, the challenge is to make this complex topic Wohnriester as transparent as possible and to transfer it easily to the sales force and most importantly to the customer. And also to take away the fear of this huge mountain of information that there is at the beginning which you*

have to become familiar with. And that's where we had to think about how we could achieve this, and communicate, also in training sessions, for example. This started with charts, documents for the sales person and questions like 'how do we integrate that [Wohnriester] into the existing documents'." (Market manager, 233:260)

Finally, and only after a little experience with integrating the new service into the sales force's service portfolio had been gained, marketing experts decided to create a catalogue of frequently asked questions in order to respond to the considerable number of inquiries raised by the sales force. In fact, the development team at headquarters noted that it was more difficult than in the past for colleagues in direct sales to understand and sell the new service, as Wohnriester deviated from the classical service characteristics reflected by the existing service portfolio. As the creation of appropriate answers to frequently asked question could not be done without the input of other experts at BankPro, the marketing experts approached the legal department in order to ensure that the answers written in the FAQ catalogue would comply with the law to the full extent. *"You want to have the highest safety possible. We receive the calls and we have to tell them something. And what we tell them has to be correct in legal terms. So we created a list for this purpose... a list of questions and answers, FAQ, in which we collected, for example, all the questions asked by the sales people. Topics which you did not think of in the beginning, but which are crucial to the customer advisory process. And we discussed such things in detail with the legal department in order to always be in a position to give a statement. And if we were sometimes uncertain, we also wrote in the FAQ that we were not certain."* (Market manager, 123:129).

As shown in the above, during the application of the external information and the development and implementation of an appropriate new financial service, several challenges occurred which were due, at least partially, firstly to the considerable time pressure inherent in the development activity and, secondly, due to the ambiguous nature of the external information needed to develop the new service.

4.2.3 Dynamics of the Absorption Process

Up to now, activities have been reported which were observed within each process step of the external learning process in the Wohnriester project. An overview of all the individual stages is to be presented in this section. In addition, more information is to be provided on the observed iterations in the process steps which up to now has only been mentioned in part in the preceding text.

Induced by the commencement of the project, even prior to the existence of a final version of the new laws on which BankPro was basing its development of the Wohnriester service, the above presented absorption process stages did not operate in a successive routine, but rather in parallel to each other. This was due to the fact that, throughout the project, new information and new drafts of the upcoming legal changes were frequently being made available which subsequently had to be acquired, transformed, and applied to various service development activities such as service concept design, and IT implementation, or sales training in parallel in order to respond quickly to the emerging changes. The following graph indicates this parallel nature of the absorption process at BankPro.

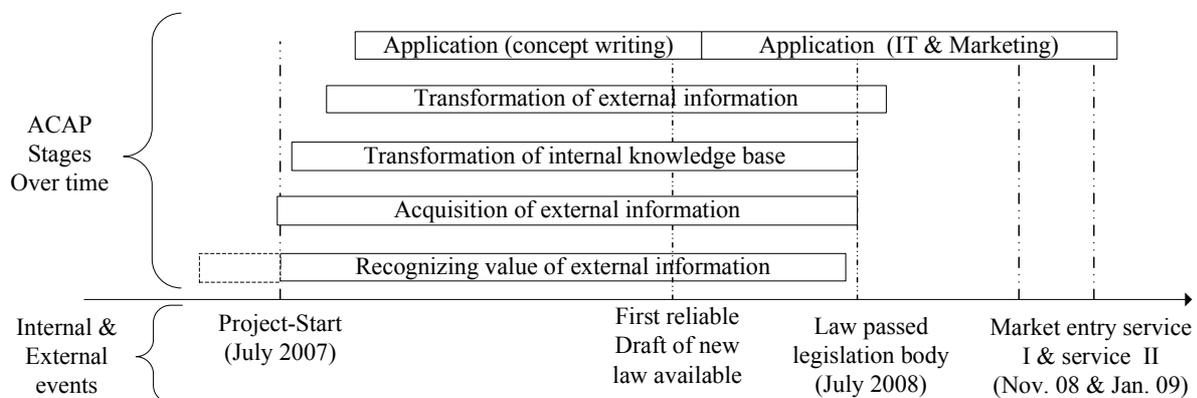


Exhibit 20: Timeline of Absorption Activities at BankPro during Wohnriester

In line with this parallelism of the various process stages, at times we also observed intense iterations among the absorption phases. This became most evident in the phases acquisition – transformation - application, as the application and acquisition and subsequent transformation were repeated several times in order to ensure that the concept development was incorporating the most recent knowledge available. At times, development staff collaborated with the internal lawyers on a weekly basis in order to discuss recent advancements in the legal environment and their applicability to the development project. This constant and iterative procedure also facilitated the recognition and acquisition of novel knowledge, since lawyers became aware of the knowledge needs of other staff members and hence a more focused and effective acquisition could be performed. *“You have to know that the law was not finally approved until June this year [2008]. There were many discussions and development trends, sometimes to the left, sometimes to the right. I had to roll out the topic and evaluate it again and again from scratch. Therefore this accompanied us here constantly because, politically, it was not clear in which direction it would go. [We started*

working J...on the basis of the conditions which were known. And then new add-ons, or changes, modifications always appeared. Then of course we had to integrate this repeatedly into the product development process. A constantly rotating story....without clarity. Some things are still not clear regarding some details. (Product Developer 77:97)

All in all, the absorption activities did not follow a typical consecutive process structure as reflected in current process models of absorptive capacity. Instead, it could more adequately be described as a learning loop in which the absorption process was repeated several times. Through this constant rejuvenation of the knowledge foundation on which the process was based, recognition and acquisition of additional knowledge was further motivated, because the parallel influx of feedback on the applicability of the sourced knowledge allowed for a more fine-grained and focused search of external knowledge.

This constant learning loop was observed to have taken place in both market and legal information absorption. At the same time, the constant iteration of the market absorption process was induced, in part, by the uncertainty of the legal information, as this constituted the foundation for the selection of the appropriate market position and the customer target group. As already mentioned elsewhere, the target groups for the Wohnriester service changed several times, as it was not possible to ascertain which customer groups would finally benefit from the new legal context.

“Well, in February there was this draft bill that we were basing our project on because it was already relatively concrete. Then, in March we went into action and communication started. That continued until about July. And then the law was passed, and there were again parts in it that we didn’t know prior to that, for instance, the parts about young people or the Riester contribution. Then we added another campaign, especially for young people; but we had already planned that all beforehand because we had defined scenarios. For instance, we said that in scenario 1 there is an exemption for young people, but none in scenario 2. And we said we would take the former in case 1 and the latter in case 2. This went on all the time so that we would really be able to react very quickly. Because that was the main challenge in this project: to be able to react immediately any info arrived or if any deadlines in the legal procedure had been passed. That’s why we worked with scenarios.” (Market manager, marketing, 333:339)

In addition to the need to remain flexible as regards the final market positioning of the new service, the progress in the development of the new service concept also necessitated a constant iteration of

the market absorption process. While in early stages information about target groups, competitors and the macroeconomic context was needed, in later stages customer feedback was sought after more in order to ascertain whether the developed concept would be accepted by BankPro's stakeholders.

Further, it was observed that the absorption processes for market and legal information were tightly interrelated and depended on each other. As explained above, particularly the absorption of market information depended on new insights on the progress of the legal context, as this had major implications for the selection of the appropriate target group. *"Finally, it is done by working very closely with the market research department. If there are any topics of a legal nature, then we additionally involve a colleague [from the legal department]."* (Marketing expert, 17:17) Due to this mutual information exchange, implications from both the market and legal perspective could be taken into consideration and helped in acquiring the needed information based on the new situations in either the legal or market domain.

4.2.4 ACAP and the Innovation Process

As has been presented in the general description of the development process of the Wohnriester project earlier in the case report, several phases were observed which finally resulted in the launch of the new service. Idea generation and pre-analysis constituted initiating activities. These were followed by more concrete conceptualization, realization, testing and market launch activities. Yet, although in the formal process description market testing was indicated, in practice such phase was not performed, and in fact, had not been performed in prior projects either. Accompanying these phases, several "go/kill" stages were performed at BankPro. After the earlier stages of the approval or dismissal of projects was performed by a specific committee of the bank, comprising senior management and members of the executive board. In later phases, after a commitment to the projects were made, no clear approval or dismissal of these was performed anymore, but rather a reporting to the very same committee was institutionalized in order to warrant timely development and proper resource allocation.

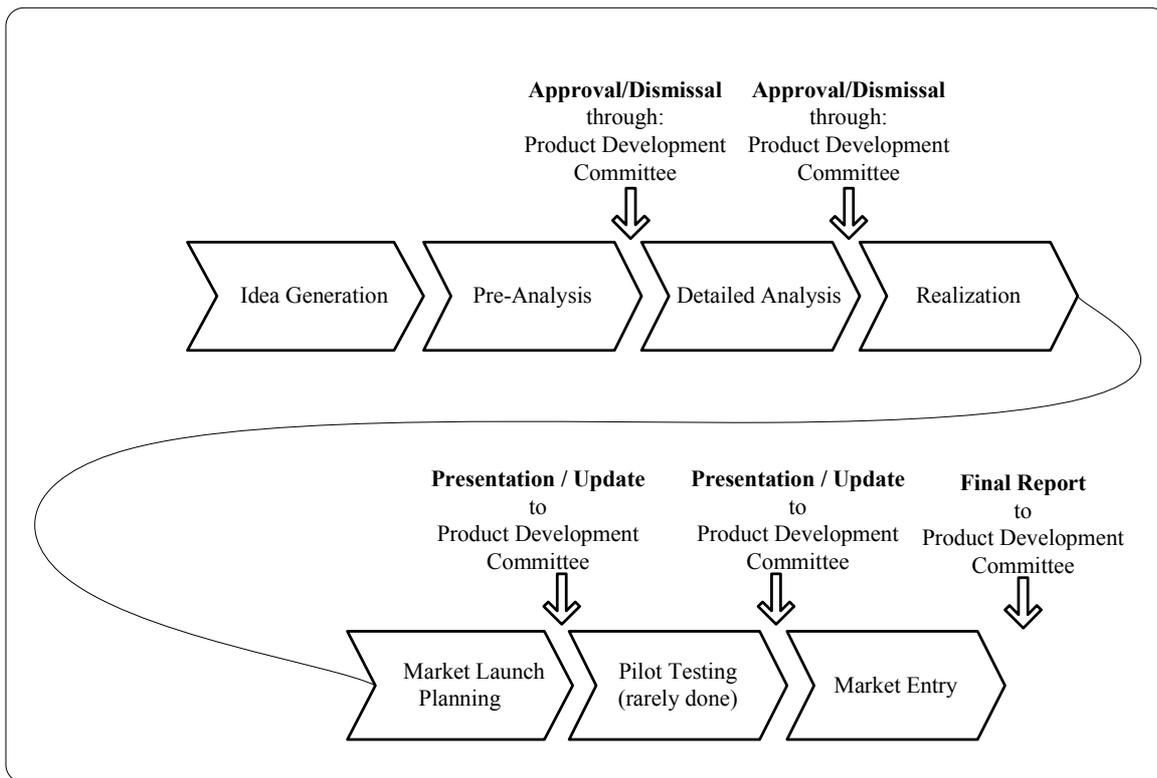


Exhibit 21: BankPro Innovation Process

Yet, as was mentioned in the description of the ACAP dynamics already, BankPro needed to remain flexible regarding the final service design until very late in the development process. This was due to pending law definitions affecting the overall service design, target customers, and financial profitability. Consequently, the process was not performed in a linear fashion where all conceptualization could be finalized early in time in order to allow for a smooth transition to the realization of the service routines and sales staff training. Rather, conceptualization of the new service had to be altered several times during the project, calling for an iterative development process running several times through design, analysis, development and parts of the launch stage.

Hence the iterative nature of the overall development process mirrored the shape of the ACAP process considerably. In general, the design and analysis stage comprised the ACAP phases of recognition and acquisition, as here new external information was needed in order to design the new service. Such new knowledge was then transformed during the later analysis and development phase and was applied mostly during the last phase, the launch phase. Yet, as external knowledge needed to be sourced several times again, due to iterating general innovation process, the ACAP process paralleled the iterations observed for the general development process. The following exhibit shows the ACAP process and the innovation process phases. For sake of clarity no

distinction between market and technical ACAP process was done in this figure. In fact, both processes were tightly interconnected and were performed to a large extent also in parallel to each other.

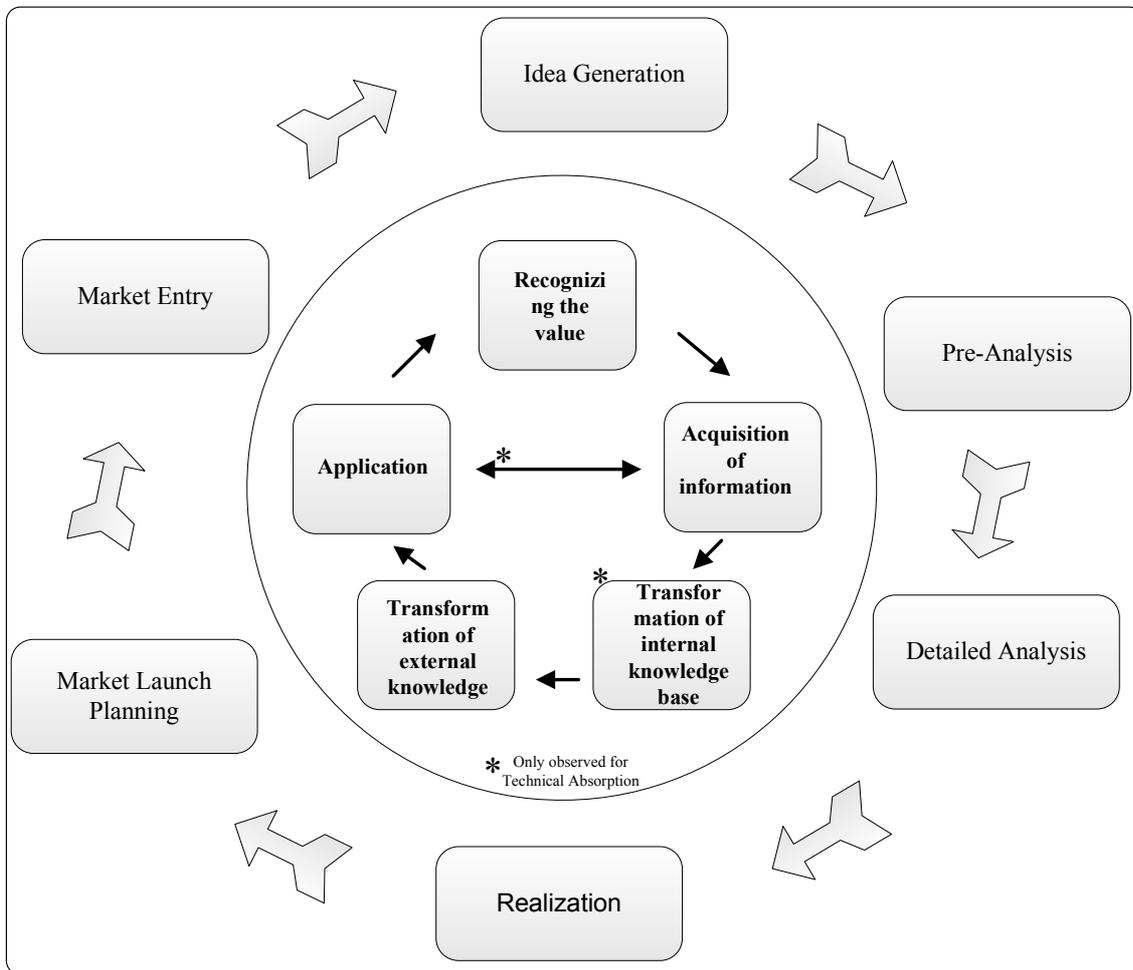


Exhibit 22: ACAP and the Innovation Process of Wohnriester

4.3 Project II: Online Business

4.3.1 The Development Process of the “Online Business” Project

The Online Business service innovation aimed at improving the online available customer services of BankPro where the bank’s clients could obtain information about their savings accounts and status of their financial products. Similar to the previously described Wohnriester project, the Online Business project also followed the main stages of the official service development process. Yet, unlike the previous project, at the time of the data collection in 2009, the Online Business Service had not yet been introduced to the market. The project consisted of different sub-projects which were designed to be launched on a one-by-one basis. Consequently, several small developments were pursued within this project, all directed at broadening BankPro’s online business segment. *“And I estimate that we will approach this topic on a step-by-step basis”.* (Marketing expert, 6:26) The sub-project with the closest launch date entailed the integration of BankPro’s online banking information into a larger online banking tool which grouped all the partners of a major bank partnership together. With this tool, it was intended that customers would receive a holistic overview of their financial activities which they carried out with this group of financial service providers. Other sub-projects constituted new service offerings, tailored directly to the specific circumstances of delivering financial services via online channels. In this case, concepts focusing on simplified services which could be understood without consulting a financial sales representative were envisaged, among others. *“We will grow into this in an organic way. The big shot will not happen immediately, [...] to optimize the online contract information for the client ... that would be the first step. [...] The second step would be to introduce an eyecatcher, to offer a calculation tool..* (Lawyer, BankPro, 2:7).

The overall project had already been in place at BankPro for several years. The bank constantly monitored its respective markets and defined several key performance indicators which determined when the market offered sufficient potential for introducing a new home loan savings service exclusively for the online channel. Although the key performance indicators were still below their critical thresholds, BankPro decided to start working on its online services in order to respond to several requests made by BankPro’s business clients and partners so as to increase the speed of their online business initiative. *“It is clear to us, as I understand it, that we cannot avoid taking part. We know that online contracts do not constitute a major issue in our core business areas. [...] And for*

this reason we have defined different courses of action in order to participate in this project [of the partner organizations]. (Head of marketing and service development, 3:8)

As indicated above, BankPro started the development of enhanced online information availability as an initial step in order to be able to respond to the demands of BankPro's business partners, although still postponing the costly development of a completely new online service offering. Customers were to be given the opportunity to calculate the rates of available loan and saving options as well as obtaining access to more detailed information on the status of their own, already active, financial services. In a subsequent step, the bank planned to introduce a financial product related to home loan savings which was only to be available online and to resemble the specific needs of online clients regarding simplicity and transparency. However, as BankPro linked the development and subsequent market launch to specific measures of market attractiveness (i.e. the percentage of online sales in relation to total sales of the industry), the initiation of the second development step had already been postponed for several years due to the low degree of online sales in the specialized financial market for BankPro's services. *"The online business project has been a project which has gone through our service development or innovation process up to a certain process stage. At this stage the board of directors said that we should define thresholds, crystal clear thresholds, at which we were to introduce a real online service, depending on the level of market volume."* (Team manager service development, 8:2)

Due to the need to respond quickly once the defined threshold for the market activities had been passed, Bankpro had already developed several work packages of the envisaged online product in the recent past. This pre-development without a concrete market introduction date was conducted due to the conviction that the majority of parameters and characteristics of such a service would remain stable, even if the new service were introduced several years later. *"We have put our three large project blocks of market penetration, pure service development, and IT processes on hold. That means we have the concepts for these three parts more or less ready. And as soon as a certain amount of new business is being done via the online channel, as soon as this threshold has been reached, we will step into the market. There is, of course another threshold - "minus one" as I call it - in order to update the concepts and fit the IT structure to the market. We have done this in order to be ready when the [other] threshold is reached."* (Team leader service development, 8:3)

4.3.2 Performance of the Online Business Project

The performance expectations for the Online Business project were considerably lower and less stringent than was observed for the Wohnriester project. For the Online Business project, due to its incremental nature, only compliance goals with the legal and technical prerequisites were defined. More specifically, BankPro set the goal that the Online Business project should in particular fulfill the technical prerequisites issued by the partner banks. *“Well, I have to design the whole system so that, in principle, all requirements, that is all necessary obligations, are adhered to.”*(Lawyer, 259:259) As this statement indicates, the Online Business project was regarded more as a compulsory task, rather than as a project to which ambitious revenue expectations were attached. This character of the project and the related modest performance expectations were also reflected in the comment made by the head of service development, *“And we know from the one side [the mother organization] that this topic will be approached as a package ...and how we understand it is that we can not avoid taking part in it.”* (Head of marketing, 111)

Although in this case the performance could not be assessed in terms of market performance, in general the performance of the project was observed to be as expected by BankPro. In general, no high expectations were connected to this project, as it was seemingly regarded as a project entailing a modest work load and cost expectations as well as a modest expectation of the risk involved in the project. This is also reflected in the following statement on the already existing in-house technology for the online business project: *“As regards the topic of electronics, or electronic purchasing [software] is maybe the more appropriate term, we have used “XY-TOP” for years... And what runs at the back of XY-TOP, these are encapsulated modules, which means you can put them on top of other systems. [...] This means that the technical background, and also the specialist background, exists. You cannot see into [our] classic internet portals, as these functions are only accessible to our sales force and the [affiliated] bank offices. And because of this, we are in a good position in terms of technical and specialist aspects.”* (Team leader, new service development, 463-485)

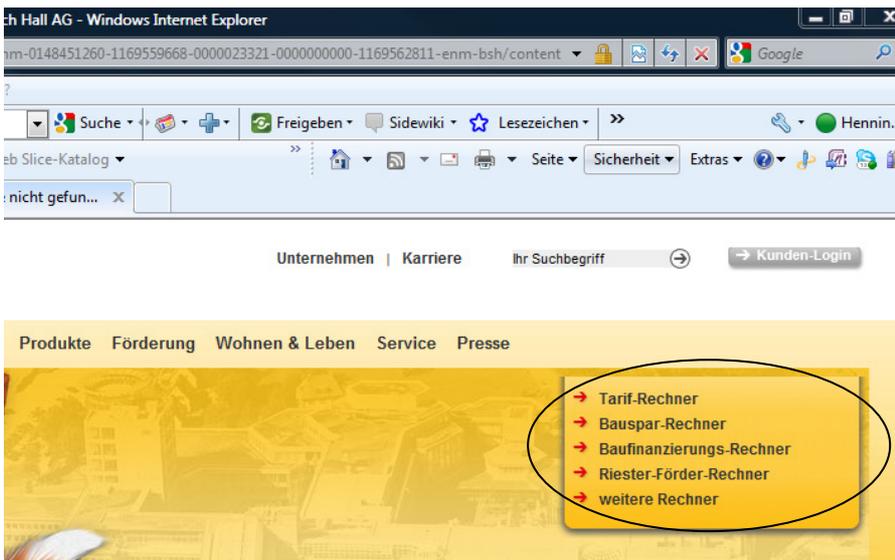


Exhibit 23: The Final Service offered on BankPro's Website (date of retrieval: 16.08.2010)

As shown in the above exhibit, BankPro realized the new service in the envisaged manner and created the functions on its website, embodied in the Online Business project. The following exhibit shows the summary of the evaluations of the performance of this project.

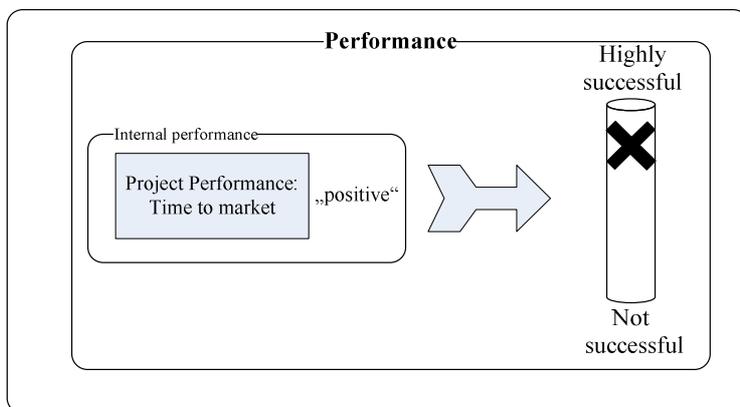


Exhibit 24: Performance OnlineBusiness

4.3.1 Degree of Newness

According to Gallouj & Weinstein (1997), a service can be described as a set of characteristics. The authors group these characteristics into client competences, provider competences, and provider technology. As the detailed definition of each of these dimensions is shown elsewhere, the degree of change of each service dimension is to be discussed in this section.

To start with client competences, a moderate change in the co-production role of the client was observed. As the main goal of the online business project was to increase the flexibility of usage of the existing online business portal as well as to provide more detailed information to the customer, the interaction between the customer and the company changed in comparison to the existing online service. In addition, the online business project was regarded as a first step in establishing an alternative route on the way to service delivery. At the time of data collection, most of BankPro's financial service offerings were presented and explained by a bank representative or by one of BankPro's sales representatives. To accomplish this, the client usually had to contact these persons in order to arrange a meeting. Once a personal meeting had been arranged, the contract was explained. During a potential subsequent meeting, the contract was then signed by the client, or not. With the online business project, this traditional service delivery process was altered as the client did not approach a bank or a sales representative directly, but now had the opportunity to approach the bank via the online channel in order to schedule a meeting with a sales representative, or to individually calculate the attractiveness of various financial services. *"....what we generate is a kind of online request which to the customer looks like signing a contract, but which is in fact a voucher for a consultation or a request for a meeting with a sales representative. But the actual contract signing would still take place via the customary sales channel..."*. (Team leader service development, 621-623) Hence, these online activities altered the service delivery process to a certain degree so that a certain change in the dimension of customer competences could be identified, as submitted by Gallouj & Weinstein (1997).

As regards provider competences, due to the definition of provider competences by Gallouj & Weinstein (1997) as being limited to the person or group "delivering" the service in person, no change was observed in this case, as the service was to be delivered online.

Finally, moderate changes were identified in the technical characteristics compared to the services usually provided. As Gallouj & Weinstein (1997) noted, technical characteristics do not limit themselves to technology; but rather other organization-wide competences which are needed to perform the service are also covered by this dimension. As has been indicated elsewhere, BankPro was not very familiar with operating online sales channels. Due to the complexity involved in the explanation of BankPro's services to the client, traditional sales channels still dominated at the time of data collection. As a result of the new characteristics of the online channel, BankPro's organization-wide technical competences were thus moderated, as a new sales channel had been

initiated through the online business project. This moderation of technical competences crystallized in the fact that BankPro learned via the online business project to understand customer behavior as regards online sales web pages. The following quote exemplifies this additional expertise gained: *“Because with that [the Onlinebusiness service] you can measure very well how many people went to which web screen, how long and where they went afterwards, and who broke off? And then you get a pretty good estimate of what the market volume and the basic interest is like.”* (Team leader service development, 624-625)

Overall, the technical characteristics of the online business service and the client competencies were altered moderately in comparison to the existing services and organization at Bankpro. As Gallouj & Weinstein (1997) distinguish between “improvement innovation” and “incremental innovation” for any new services which have only been moderately changed, a brief distinction is needed. The term “improvement innovation” refers to innovations in which the focal service has merely been subjected to improvements of its characteristics. No additional new element has been added. In contrast, “incremental innovations”, according to Gallouj & Weinstein (1997), refer to such service innovations in which certain novel elements of either the technical competences or the client / provider competences have been introduced.

At BankPro, data suggests that within the client competences as well as the technical characteristics, certain novel elements were introduced which were not already in use in relation to other services of BankPro. Consequently, the degree of newness for this service innovation project has been evaluated as “incremental innovation”. The following exhibit summarizes the evaluation of the degree of newness.

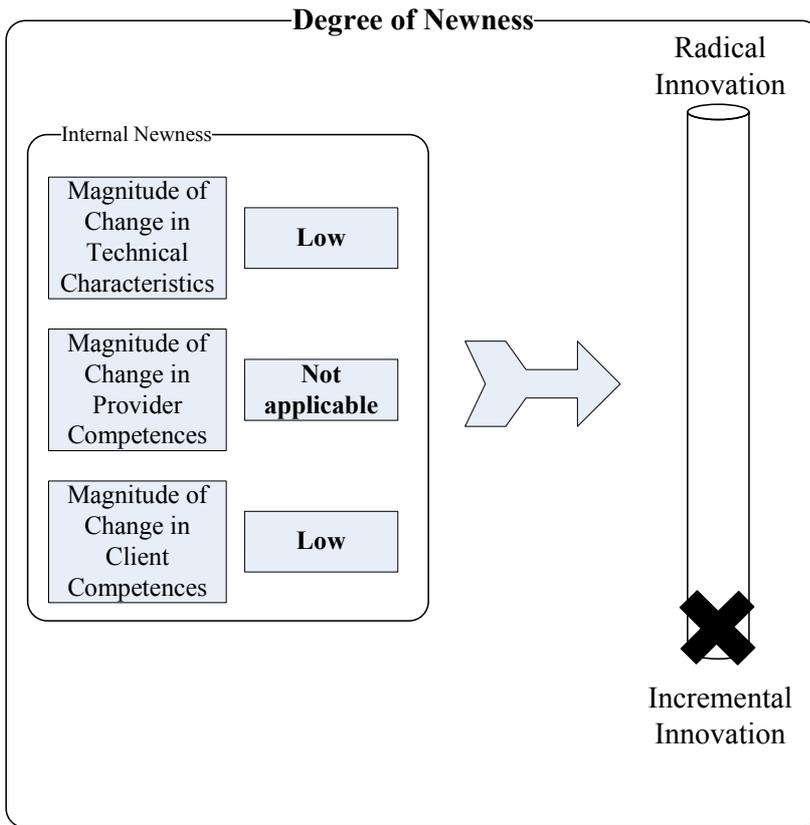


Exhibit 25: Degree of Newness (OnlineBusiness)

4.3.2 The Absorption Process during the “Online Business” Project

4.3.2.1 Recognizing

During the online banking project, BankPro recognized the value of external information relevant to the project via institutionalized market research activities. Yet, as already described in the above, BankPro had not yet introduced an online service and resorted to monitoring the attractiveness of online business by measuring several key performance indicators. The bank iterated the measurement for these criteria with the help of their internal market research department.

“...[the Online Business project] has constituted a continuous inquiry in marketing for years. This means that we observe the potentials via market research, observe what others do in this area, and continuously have a picture of whether online home loan savings is a real topic for us or not.”
 (Head of marketing, 95:97)

In this case, internal experts took advantage of standardized market research studies as well as analyzing the market for online business via individualized market surveys. The observations from these reports were subsequently reported at the regularly held innovation board meetings (PeKu meetings).

However, the general monitoring of the market attractiveness of online business was not the trigger that created awareness for the need to acquire further information on online business. In fact, if the monitoring of the market attractiveness had been the only recognition activity, no further activity would have been conducted, as the defined thresholds for the market attractiveness measures had not yet been reached. One of the important enablers for starting to recognize the value of external information on online business were the regular demands made by BankPro's business clients (affiliated banks) and its parent organization. These business clients and BankPro's parent organization specified the need to increase the awareness and efforts of the bank association's online services.

"...the inquiries [about online business] have increased on the part of the [client] banks. We sense more and more that these want to get closer to this type of sales channel...because this is the trend of the times". (Team leader service development, 789:795) *"And we know from the one side [the mother organization] that this topic will be approached as a packageand how we understand it is that we can not avoid taking part in it."* (Head of marketing, 111)

In response, BankPro changed its original plan to introduce a distinct service offering for the online channel directly (once the market potential was sufficiently high) to a more incremental approach. In several steps, the BankPro online channel was to be made more advanced and offer more information to the customer. These intermediary steps were chosen in order to respond to the external demands raised by BankPro's associated business clients and partners. Only after these initial steps had been accomplished would a separate and completely newly designed online financial service offering be introduced. Hence, the external call for more activity on the online market increased the internal priority of the project and created the need for several experts in the legal, marketing, and IT departments at BankPro to recognize more specific information about online services.

4.3.2.2 Acquisition

Once a general awareness of the value of the project, and in consequence of the need for external information on the online business project had emerged, several departments within BankPro engaged in the further acquisition of relevant information. As the project was led by the marketing department, the head of BankPro's marketing department engaged in rotating meetings with the other partner organizations involved in the joint internet presence in order to collect information about the status and scope of the online initiative at the other organizations. *"I did not take part in these meetings, that was of course the head of our department, Mr. XXX. And what I know is that there are periodical meetings at which an exchange takes place on how everyone approaches this topic."* (Project manager, marketing department). Besides these inquiries, the project manager took advantage of the institutionalized market research tools utilized by BankPro on a continuous basis. *"We try to narrow it down via market research reports. ... Well, these ask repeatedly about the usage of the internet, what the affinity of customers is like concerning buying financial products online, such as home loan savings, insurance policies, or other products. In this way, we can easily observe how this has developed over the years."* (Project manager, marketing, 53-57)

As already mentioned above, there had been a general awareness of online business within BankPro for more than ten years. As a result, several market research instruments collected information about market-specific information relevant to introducing a distinct financial offering for the online channel. One additional acquisition activity constituted the analysis of online banking services offered by other competing institutions. Aspects such as the scope and degree of details of available information to the customer were investigated and documented. In addition, the existing online portals of other partner banks were screened in order to learn from the best solutions found among these banks. *"On the other hand [we also use] our contacts to banks. There are banks which are very successful in their internet presence, whether developed on their own or in collaboration with agencies. And naturally we want to learn something from these to see what they do differently from other banks?"* (Project manager, marketing, 680)

Besides this acquisition of market knowledge, BankPro substantially relied on their prior experience, especially regarding the technological realization of the improvements in the online business.

"As regards the topic of electronics, or electronic purchasing [software] is maybe the more appropriate term, we have used "XY-TOP" for years... And what runs at the back of XY-TOP, these

are encapsulated modules, which means you can put them on top of other systems. [...] This means that the technical background, and also the specialist background, exists. You cannot see into [our] classic internet portals, as these functions are only accessible to our sales force and the [affiliated] bank offices. And because of this, we are in a good position in terms of technical and specialist aspects.” (Team leader, new service development, 463-485)

As regards the acquisition of legal information, which in this project was closely linked to the technical realization of the service, information acquisition activities were bundled in the legal department of BankPro, like in the Wohnriester project. Here, lawyers updated their expertise via document research and after this initial step, personal analyses of competitors' online business approaches were conducted in order to take advantage of already existing solutions so as to legally safeguard the envisaged online improvement initiative. *“The first step is literature research, [...] you simply sit down, and in principle then you go through the online sales channels of other institutes. Well, I went through such an online sales channel myself once, just to see how these pages are structured. When is what highlighted? When do they use what kind of approach? And I went through, for example, the “mail order” home loan savings bank. (Lawyer, 231:235) “Then there are many things you have to write down in order to say that we would not do things this way, but first [I assess] how they do it.”* (Lawyer, 237:238)

Besides this pragmatic approach to acquiring legal information about the online business solution, lawyers also engaged in face-to-face meetings with legal experts of other associated retail banks. In this case, lawyers from different retail banks met in January 2009 at the beginning of the development of the online business project in order to improve the information content of the general online business. The lawyers from each partner association presented individually chosen topics of interest. While not all topics presented at this meeting were relevant to BankPro, the attending lawyer from BankPro identified a number of helpful issues. In cases in which the relevant information was not transferred to a sufficient degree during the meeting, BankPro's lawyer approached the partner bank's legal expert in order to obtain more detailed information after the meeting. *“In January 2009, the ambassadors of these [three partner organizations] met at the BVR [national center of the association to which BankPro is attached], and we went through the topics which were relevant to the respective organizations. [firm 1] has regulations for taking out insurances, [firm 2] has bond regulations which are not directly relevant to us.... And above all, everyone has overarching topics such as data protection laws or telephone marketing regulations. And how did we solve that? [...] This is how: we took one or two topics with us,[but also] told the*

other colleague atf the other organization to look it up at his place and to inform all others subsequently [...] [when] there was no “ad-hoc” solution.” (Lawyer, 247-281)

4.3.2.3 Transformation

After the acquisition of information had successfully been accomplished, experts not only stored the acquired knowledge, but transferred it to relevant project members. In order to facilitate understanding of the novel information for non-experts, members from the technological, legal, or marketing oriented departments translated the specific information into more general business language.

In terms of externally sourced legal information, BankPro’s lawyers spanned the boundary between the knowledge about online business existing in the association, selected the information relevant to BankPro, and evaluated the importance of this information for BankPro. As one lawyer stated:

“...we wrote protocols, so to say, in order to name the aspects and to state “if we move into further service development we will need to take into consideration that this [a certain legal issue] has to be further developed in more detail.” (Lawyer, 275:281). By informing other departments of the legally relevant information which would affect the development of the enhanced web services, the legal experts explicitly considered translating the legal formulations into understandable phrases and to outline the consequences of the legal aspects on further development activities. As the lawyer noted: “First you have to see your task under the aspect of breaking the language down so that it can be understood by the others. Well, you have to step down from the expert language to a generally understandable language. And maybe you also have to make your point with the help of examples. [...] and say, “from a legal perspective we have to act this way here, we have to construct it that way, for your work you have to consider it another way.” (Lawyer , 347-348)

From a marketing perspective, the market research experts in particular needed to translate the acquired information into executable terms. The marketing project manager for the online business project argued: *“I rely on my colleagues [from market research] who are writing these reports all the time.” (Project manager, marketing, 143). And he looks at it first [...] and then he does a kind of summary. [...] But the interpretation of the whole thing, what it means, also in comparison to the last years...then he always has the interpretation attached to it and also a conclusion of what he is saying compared to the last time.” (Project manager marketing, 185-190)*

Similarly to the assimilation activities concerning legal and market research related information, technical information about the realization of the online business project also needed to be assimilated by experts in order to become understandable to other project members. *“...and on the other side, of course, the colleagues in the IT department. Here in Marketing we also have a department for the sales support software. That’s where I exchange information with the colleagues in order to estimate what would be possible, what already works in the systems we are operating...”* (Project manager, marketing, 143-149)

4.3.2.4 Application

Due to the – at the time of data collection - rather early stage of the overall project progress, the application of the acquired information was not widely observable. The project status consisted more of the gathering and assimilation of information in order to build a basis for the development of the service concept. One of the few observable applications of the gathered information was the use of the market research data as well as the feedback from the associated banks to facilitate the decisions of the PeCo board regarding the online business project. The other information collected concerning competitors’ solutions and the legal aspects was to be applied in later development stages which were not observed during this research.

4.3.3 Dynamics of the Absorption Process

While in the Wohnriester innovation project a highly dynamic learning process could be observed, the learning activities during the online business project, particularly the absorption activities related to the technical development of the service concept, followed a rather linear process. At first, the recognition of the need to source more information initiated the acquisition and transformation activities. These different absorption activities were mostly performed once and were only rarely repeated due to the fact that considerable prior knowledge already existed in the bank. BankPro’s lawyer responsible for the project in the legal department collected information at the beginning of the project, in January 2009, and competitors’ solutions to legal issues were discussed as well as personal exchange with legal experts from other partner organizations taking place. After this had been accomplished, no further acquisition activities were observed. Particularly the lack of repetition of the meeting with other lawyers was highlighted by the interviewee: *“Once there was a meeting with lawyers from different affiliated institutions which were to be involved in the pilot phase of the project. Those institutions [firm 1, firm 2, firm 3] sent representatives who met for a workshop at the end of January at the BVR Center”* (Lawyer, 237-

239). Data also revealed that the absorption of external information was performed during earlier phases and was subsequently considered accomplished. In consequence, no need for new rounds of information acquisition was observable. The following quote by a lawyer in the legal department of BankPro exemplified this: *“Well, everything is done, in principle. Well, in a first step we did literature research, [...] we sat down to study the online channels of other institutes...”* (Lawyer, 231:231).

Notwithstanding the lack of iteration within the absorption of legal information, in the learning process for market information, some iterations were identified. Status information [of the attractiveness of online market in general] was repeatedly collected and interpreted. As already mentioned elsewhere, BankPro had defined several criteria for assessing the market potential for online business, and constantly measured whether the values of each criterion exceeded certain thresholds. *“Well, meanwhile this runs automatically as he [market research expert] passes reports on to me every three months, or at least every half a year. There are rules where we say: for this we need a statement, for example how [online] sales are developing, how did they perform last year?”* (Project manager, marketing, 165:166). As regards more specific information necessary for clarifying elements of the future service, similar iterations could be observed. The responsible people from the marketing departments of various partner banks met on a regular basis and exchanged their approaches to the introduction of the planned online business tools. *“Regular meetings of the work group take place where we exchange information with each other [other banks] on how to approach the topic.”* (Project manager, marketing, 135)

Hence, market related external information was not only sourced once, as was the case in the absorption of legal information. In fact, BankPro institutionalized several sourcing routines which were iterated in a planned and regular manner. Besides these planned updating processes, no unexpected iteration or unscheduled acquisition of novel information could be observed.

Additionally, interrelations between market and technical absorption activities were also identified. Similar to the Wohnriester project, the market absorption process in the online business project also benefitted in particular from parallel technical information updates, although not to the same extent as observed in the Wohnriester project. This interconnectedness of the two absorption processes was induced by the fact that some marketing activities that were planned to be implemented in the improved online banking service, necessitated information about what the legal consequences of such online commercializing activities were likely to be. For example, while the competitor

analyses mainly comprised market-related information, an internal lawyer at BankPro also checked how other retail banks solved certain legal issues, such as the provision of important information on customer data secrecy and limitations of storing customer data. *“The first step is literature research, [...] for which you simply sit down and read. And, in principle, you then go through the online sales channels of other institutes. Well, I went through such an online sales channel myself once, in order to see how these pages are structured. What is highlighted, and when? What kind of approach do they use, and when? And I went through, for example, the ‘mail order’ home loan savings bank.”* (Lawyer, 231:235)

4.3.4 ACAP and the Innovation Process

The development of the Onlinebusiness basically followed the same formal development process as the Wohnriester project did. Yet, unlike the Wohnriester project, not all parts of the service needed to become developed during the actual development project, but technical concepts were already ready for implementation as the development project could take advantage of a prior yet seized attempt to improve the online banking infrastructure. Hence, only some re-work of already existing conceptual work was needed, leading to the fact that no pre-analysis or in-depth conceptual stage was observed at BankPro for this project.

Similar to Wohnriester, also in this project the absorption activities paralleled the development process. Both the absorption of technical information and the development process were conducted in a sequential, linear fashion. During the early phases of the innovation process, most of the acquisition of external technical information was performed in order to fuel the analysis and realization phase. It was also in the realization phase that most of the transformation activities and the application of the external information were performed as the novel information was needed to realize the new service. Similarly, as the realization of the new online service did not need to be updated or modified during the development process, neither was it necessary to iterate the absorption process.

While such linear, sequential pattern was observed for the technical information, absorption of market information was performed in a more dynamic pattern. As was described in the prior section on the dynamics of the absorption process, via meetings with external partner organizations and due to institutionalized market monitoring activities, influx of market related information could be observed also during later stages of the development activities. These activities of absorbing

external information several times during the development process did not, however, influence the linear pattern of the development activities. As was mentioned in the general description of the Online Business project already, repeated market information absorption took place in order to ascertain whether to invest more heavily in the online sales channel of the bank. Due to the fact, however, that the market potential did not change during the time of the development of the here studied basic service, this information did not alter the design of the service, as the general market characteristics remained stable. The flows of the development and absorption processes are shown in the following exhibit.

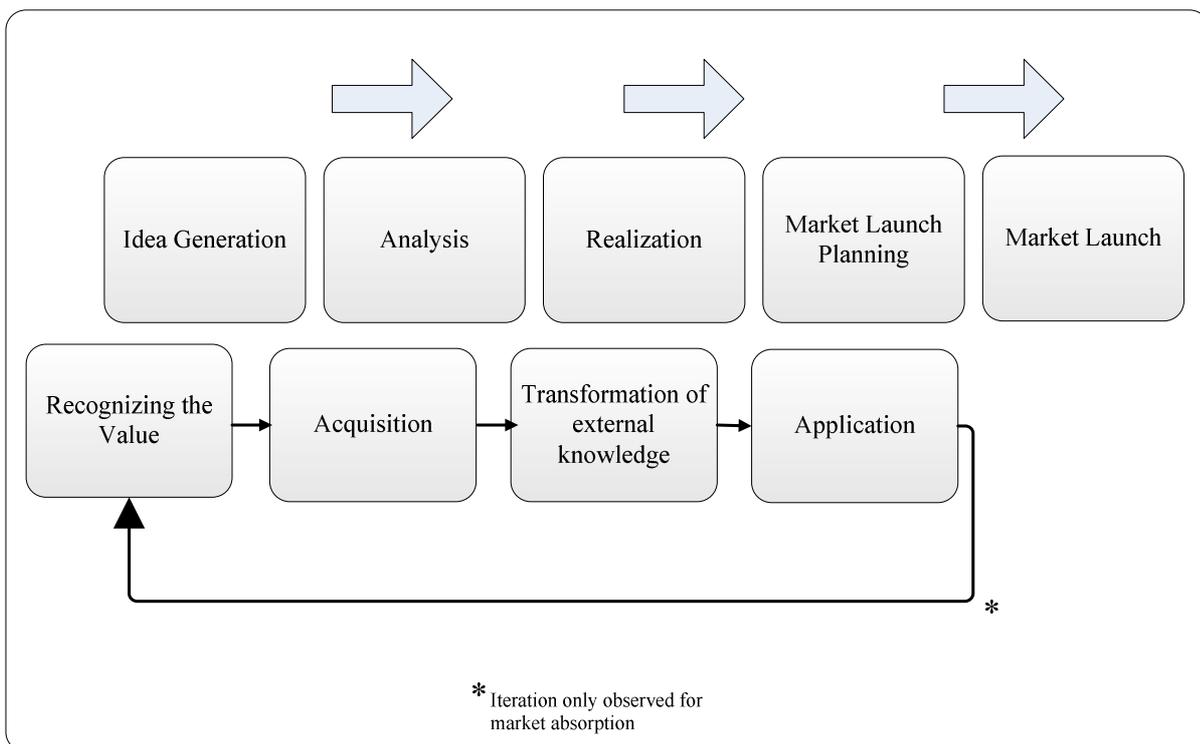


Exhibit 26: ACAP and the Innovatoin Process (Online Business)

4.4 Facilitators and Inhibitors of the Absorption Process

In this section, inhibiting and facilitating factors for the ACAP process are being analysed. Most of the presented factors influenced both innovation projects (Wohnriester and Online Business) as they were longstanding components and characteristics of the whole organization of BankPro, or were rooted in the external context of the firm. Hence in many cases the presence of these factors was given for all innovation related activities. For this reason, the structure of the here presented analysis of these factors is not formally separated into the two innovation projects, as several times

the same organizational settings (e.g. intellectual property rights, firm size) influenced both projects to similar degrees.

4.4.1 Social Integration Mechanisms

Social integration mechanisms, or the sharing of knowledge in order to facilitate understanding and comprehension (Zahra & George, 2002), were identified in the data to facilitate the absorption of external information. In general, these mechanisms were observed to be present in many activities related to newly gained information. At BankPro, several routines for knowledge sharing were in place. By means of an institutionalized, electronic document, members of several departments, such as the legal, marketing, market research, controlling, or maths departments, provided an estimation of the potential and risks of the idea from different perspectives. Hence, this structured approach to better understanding novel trends or ideas facilitated the spread of information and the exchange of opinions about the novel information available. *“The preliminary analysis is on an electronic, standardised basis. We fill out this electronic document and we ask each affected department for their statements and amendments. Then it flows back to us, and we do an analysis, briefly summarize [it], and we formulate a recommendation from this, again for the product development committee, which [the recommendation] we again make available to all affected departments.”*(Head of service development, 23:23)

In addition, the sharing of knowledge was facilitated through the purposeful close localization of the departments that frequently exchanged information during service development. At BankPro, development staff and staff from sales-related departments were located close to one another. This was reported as supporting the quick sharing of information among the important actors in the development activities. *“And it is important that the communication is open, and not only via electronic tools, but that you get aware of something. Well, the product developers are located in the same large room as the sales people in home loan savings. And then they are aware if there is any stress on the telephone, because some bankers say what a crap, I cannot sell this. That generates problems. As a result, they become aware of that and in this way, a discussion emerges relatively easily. And then the sales people can say, “Why do you give us such a bad product” Or “You are developing away from the market”. This discussion emerges.”* (Head of service development, 172-172)

Through the project organization of the development activities, frequent exchange of information has also been reported to facilitate the internal flow of novel information. *“The developers are not*

alone. There is always a project group. Well, there is always a network of controllers, finance mathematicians, lawyers.” (Head of service development, 61:61)

Finally, personal networks inside the Bank supported the free flow and understanding of information through discussion and exchange of different perspectives on the information available. More specifically, personal networks were present, in particular, between the key players of the various involved departments. Interviewees reported that due to the long-term relationship between the internal experts, the exchange of information was greatly enhanced. *“The same people frequently sit there That has become a group of colleagues...everyone knows each other. These are people who can fruitfully exchange [information] with each other in a relatively short time.”* (Project leader Wohnriester, 200:200). In addition, strong ties were reported to exist between the market research and product development experts, in particular, which again shortened the information cycles. *“And of course, the link between product developers and market researchers must be good ... or we hear through the marketing colleagues that there are more and more problems ... communications simply have to be open.”* (Head of service development, 168:168)

These general mechanisms for internal knowledge integration usually supported both the Wohnriester and the online business project. Yet, besides the general presence of such “mechanisms that build connectedness” (Zahra & George, 2002: 194), a particular presence was observed in the Wohnriester project were, due to the dynamics involved in the acquisition of novel external information, meetings with the key players were held each time new and relevant information was available. Consequently, meetings among the internal experts were performed with the intention of making sense of novel information and deriving a common interpretation of this information. *“This circle met on a permanent basis, weekly, ok?”* (Product developer, 1:155). As a considerable overlap between the absorption process stages was observed (and has already been reported elsewhere), these knowledge integration mechanisms needed to be present in all the absorption phases of recognition, acquisition, transformation, and application.

Hence, while for the Wohnriester project knowledge integration mechanisms were observed to be present to a high extent, within the online business project, knowledge integration mechanisms were not as immediate as in the Wohnriester project. Due to the limited newness of the project, only a few formal meetings were held in order to create a shared understanding of the novel information available. *“...There was an official kick-off meeting at which ... marketing presented it [the project], what the topic was, what we wanted to work on, where we wanted to go.”*(Lawyer, 293-

293) After the different members of the meeting had exchanged their opinions on the novel project during the kick-off meeting, an area for sharing information was opened in BankPro's intranet. "...there is also a joint database to which the project members have access." (Lawyer, 297:297) Yet, in the event that the members of the organization needed to clarify certain information, informal connections were also used during the online business project: "It could well be that, in principle, a sub-area [meaning people in the sub-area of the legal department] meets briefly with a colleague or clarifies [something] via telephone. For this, it is not necessary to organize a whole meeting. Whenever I have a detailed question, then I collect an answer directly." (Lawyer, 395:395)

4.4.2 Network as Knowledge Source

Bank Association

The association served as a hub and exchange platform for various key experts among the association's members. For example, financial mathematicians who were also strongly involved in the development of the new Wohnriester service took advantage of tri-monthly seminars held by the association in order to keep track of developments and new insights in their respective expertise areas. In fact, BankPro not only participated in these seminars, internal experts even pro-actively contributed to these knowledge sharing activities on an association level. For instance, the head of BankPro's financial mathematics department was responsible for a seminar on Wohnriester-specific calculation mechanisms. "There is a frequent exchange among the home loan savings banks; ...the home loan savings experts and technicians exchange [knowledge] via the association of private home loan banks." ... "They meet four times a year and all topics are [covered] there that concern home loan savings.... Well, next week the next meeting will be held at which will talk again about Wohnriester. Mr. X [head of financial mathematics dep.] ... is also the head of this story.... Then there are continuing education seminars, also at the association, where you can work on specific basic topics....(Financial maths expert, 127:135) As the quote exemplifies, the association served as an additional, valued, source for increasing the general expertise of BankPro's mathematics experts on specific trends and topics relevant to them.

As regards the Wohnriester project, BankPro received constant evaluations about the status of the legal change from the association, which were necessary for developing the new service. Thanks to the association's own lawyers and through mutual exchange between the legal departments of the associations' members, BankPro could buttress and compare its own evaluation of the upcoming legal change with the association's and other members' opinions. Through this relationship,

BankPro received support in recognizing the value of the external change which again facilitated the acquisition of more detailed information. *They [the lawyers] were not only internal, but there is also an association of private home loan banks". (Product developer B, 312:312) "All public and private parties are united there and interchange information with each other on an association level." (Product Developer B 314:314) "And the colleagues from the legal department exchanged [their thoughts] with colleagues from other banks which are of course also affected to the same extent. And then there is a more consolidated opinion." (Market manager A, 123:123)*

In particular due to the strong position of the association among the specialized retail banks, its statement to put other development efforts on hold in order to concentrate on the legal change enhanced BankPro's awareness of the importance of searching for related information. It could be argued that due to this external trigger, the importance of the new project was generally accepted in-house, avoiding internal discussions concerning the benefit of concentrating on this new opportunity. *"The association said, 'Let us postpone 'educational savings', Wohnriester has the highest priority; and from then on, all home loan banks pushed it." (Product developer A, project leader, 323:323)* Hence, in the Wohnriester project, the relationship of BankPro to the association facilitated their recognition of the importance of the legal change, the acquisition of the relevant information relating to this change, and, in addition, the association helped BankPro to maintain and advance its general knowledge base.

In the online business project, the external association played a similar role as a knowledge source. BankPro participated in various work groups on an association level at which different members of the association discussed and evaluated the market trends in online business. *"There are various work groups in the association too which... are concerned with this topic. And we are partially involved there and observe together how the topic can be pushed in the future." (Project manager marketing, 09:13).* In addition, legal information was exchanged at the association, too. BankPro's lawyer met with other experts from other members of the association at the main building of the association and exchanged information on potential legal aspects. *"Once there was also a meeting of lawyers from different association members already involved in the pilot phase... these met for a workshop at the end of January ..."* (Lawyer, 293:295)

Financial Regulation Office

Besides the collaboration between BankPro and the bank association, their contact to the financial regulation office of the German government also constituted an important knowledge source which

became accessible through employing their own lobbyist. This lobbyist served in particular as a knowledge source for the Wohnriester project. He was not observed to have played a role in the online business project, however, as this was more related to quite well known legal domains for which the expertise and insider knowledge of the lobbyist was not needed.

As clarification of the term lobbyist BankPro employed a person who was working outside BankPro in the German capital, Berlin, in order to sense trends and upcoming changes issued by the national government and to represent the interests of BankPro on a national level. During the Wohnriester project, this lobbyist stood in close contact both to the marketing department and to the legal department. Particularly during the final stage, when the new law was in the process of being passed by the legislator, he was almost in daily contact with members of the development team in order to provide up-to-date information on how the legal change could unfold. *“For example when the new law was being made, there were certainly periods when I was in daily contact with Mr. X [lobbyist]. Well, there was a very lively exchange.”* (Lawyer, 25:25) *“Well, the task of Mr. X [lobbyist] is definitely to be very close to the pulse of time, so that we do risk finding out things when the train is already half out of the station, but so that we can make an early move and, if necessary, take up position”.* (Lawyer, 17:17)

Besides supporting the legal department with information on the upcoming legal change, the marketing department also profited during the implementation of marketing material of the new product from the lobbyist. However, the contact to the lobbyist only took place, at least during the Wohnriester project, through the legal department. *“In that case the legal department contacted me. They had priory contact to Mr. X [lobbyist], who is our contact person, and they forwarded me the information. When some things are not clear, then we discuss this again in order to see whether we have interpreted it correctly or whether we have understood it correctly.”* (Market manager 1, 113:115)

Yet, besides the facilitating role which the lobbyist played during the Wohnriester project, it was also observed that BankPro had to invest considerable resources in the lobbyist's work. Besides the basic employment of this expert, a team also supported him internally so that he could fulfil his role in representing BankPro's interests on a national level. *“This team [subteam within product management department], relative to the other teams, is well equipped with man power, but it has an additional function besides pure development activities. ...Let me put it this way, for projects which resulted from lobby activities in Berlin, when these topics are [tax] stimulations or to provide*

Mr. X with the necessary information, to brief him, to prepare him.... the team in product management serves as a staff unit for him.” (Designated head of product management, 48:48)

Partner Organization

Finally, the close relationship between BankPro and one specialized financial service provider facilitated external learning within the Wohnriester service development activities at BankPro. For the online business project, only a marginal facilitating role of a single partner organization was observed, indicating the reduced breadth of the network during the incremental innovation project. As already explained in the general overview of BankPro’s business areas, within its third product line “provision of additional services”, BankPro usually purchased added services from an external service provider, BankPlus, in order to offer a large variety of different services to the client. However, in the course of this sales collaboration, BankPro also worked together with BankPlus in order to jointly consider new service bundles or specific service solutions which could be offered jointly by both banks. *“And besides, we have regular product meetings with BankPlus and BankBPO. And there ... we say, “we have a new idea, let’s meet “out of schedule”. Or they have an idea. Mostly [we meet] in the middle...in [city name], ... at the Holiday Inn. This has become institutionalized over many years now. That is neutral ground. And we both have more or less the same driving distance. And we discuss there.” (Head of product management, 199:201)*

Due to this institutionalized collaborative relationship between BankPro and, in particular, BankPlus, the project leader of the Wohnriester project was in the position to acquire valuable documents about the Wohnriester-related legal change. As already mentioned in the process description, these documents constituted detailed and readily applicable material, stemming from an earlier development activity of BankPlus related to a similar legal change which, however, lay outside BankPro’s own domains and hence was not relevant to BankPro at that time. *“Especially in relation to Wohnriester, they [BankPlus] have created know-how, because this legal topic has existed in general since 2001. They are also market leaders in their market. And there are certain issues where we tried - via our colleagues in the third product division -to get information in order not to “re-invent the wheel”. There we resorted to their know-how and competence.” (Product developer, project leader, 351:351).*

Personal Networks

Besides the facilitating role of being connected to partner organizations and the bank association, personal networks between the members of different internal organizations supported the absorption

of external information. In general, project leaders, mathematicians, and lawyers reported having made use of personal networks in order to acquire novel information for their innovation-related activities. To start with, the project leaders of the service development projects were well known through their networks to other development experts of other retail banks. *“Well, the product developer is someone who knows the market very well, who has excellent contacts in-house, who ... has a good relationship to colleagues from a mortgage bank and who exchanges information [with them]. They have their own networks in the association [of home loan banks] where they always know exactly what is going on at the moment. Well, if I have to ask someone for specific information..., then I would ... ask Mr XX or Ms. XYZ [product developers]. They call someone, I do not know who, and they have information within five minutes. Well there is a lot [of information] especially via networks.”* (Head of service development)

In addition to the use of personal networks to access market information, BankPro’s lawyers also made frequent use of this source of external information. *“Such a network is tremendously important and has to be maintained, too. Well, we work together with other lawyers from other banks. I myself, was formerly employed at XXX and I still have contacts there And then you have a very specific contact person ... where in principle you know people directly from joint training, for example. And these contacts are used [by me].”* (Lawyer, 403:405)

Finally, BankPro’s mathematicians also maintained personal contact to other competing home loan banks in order to exchange relevant information on back calculation logics, or the optimization of specific algorithms. *“Mostly in the field of collective management [mathematical area], ... contacts to home loan banks are maintained proactively.”* (Head of service development, 260:261)

More specifically, in the Wohnriester project, product development experts used existing personal networks of another department within BankPro in order to access detailed information concerning the legal change. Hence, the personal networks of other colleagues were leveraged by the developers in order to acquire new insights. *“Especially in relation to Wohnriester, they [BankPlus] have created know-how, because this legal topic has existed in general since 2001. They are also market leaders in their market. And there are certain issues where we tried - via our colleagues in the third product division -to get information in order not to “re-invent the wheel”. There we resorted to their know-how and competence.”* (Product developer, project leader, 351:351)

In the online business project, personal networks were also used in order to acquire information. In contrast to the Wohnriester project, where new information was actively searched for and accessed via the personal networks, in this case personal contacts were used more to clarify aspects which had already been discussed on an association level. Consequently, the intensity of actively using personal networks was not very high in the online business project. Neither was the existing breadth of personal contacts within the bank exploited during the online business project.

“Well in the online business project it was like this: We had that meeting in January and then afterwards were digging deeper into certain aspects in a bilateral way with colleagues from [company XXX and [company YYY].” (Lawyer, 408:409)

4.4.3 Power Relationships

As Todorova and Durisin (2007) proposed, power relations, i.e. “relationships that involve the use of power and other resources by an actor to obtain his or her preferred goal” (Pfeffer, 1981), served as an additional influence on BankPro’s ability to absorb external information. For this purpose, power relationships may exist inside or outside the absorbing organization (Todorova & Durisin, 2007). At BankPro, several power relationships were generally present and, in some cases, these were also identified as influencing the external learning process.

As regards internal power relationships, the board of directors constituted the main decision-making body in service development. As already described elsewhere, the board of directors institutionalized a separate innovation committee, the PeCo, who met every six weeks to evaluate current and future projects. Resource allocation was only carried out by way of the decisions made by this committee. As the committee comprised not only members of the board of directors, but also senior executives from marketing, controlling, and other areas of the bank, resources were only granted if consensus had been reached. Possibly due to this balancing by various internal stakeholders in innovation projects, no singular power relationship of specific departments or divisions of the bank could be identified in the data. This committee constituted the main powerful actor which influenced the Wohnriester and online business projects.

As regards external power relationships in the Wohnriester project, the association with which BankPro was affiliated maintained a power relationship which in some cases shifted the focus of the absorption activities considerably. More specifically, the association constituted the main external trigger for focusing the external search activities on the upcoming legal change which ultimately led

to the development of the Wohnriester service. While BankPro also maintained alternative search processes even prior to this project, the association recommended disregarding other trends in the market and to focus resources on the adaptation of BankPro to the legal change. *“The association suggested, postponing ‘education savings’” [another long term trend in the market], Wohnriester had the highest priority, so all the home loan savings banks pushed it in this way.*” (Project leader Wohnriester, 323:323).

While the association maintained the strongest power relationship regarding the Wohnriester project, during the online business project, the parent organization and BankPro’s business customers (i.e. affiliated retail banks) influenced the acquisition of external information more. The parent organization served as a trigger for BankPro’s focus on online business-related services. As the parent organization also owned other specialized retail banks, strategic initiatives were started from time to time in order to synthesize the businesses of these different organizations. One of these initiatives concerned the online business strategy. And due to this initiative, several of the affiliated organizations started to search for solutions. At BankPro, this resulted in the decision to approach the online business domain in an incremental fashion, and to move from an improvement of the information content of the existing online solution to a future service which was to be designed especially for the needs of an online-based service provision via a step-by-step logic. *“Online business is a project that is currently growing; and it is triggered a little bit by [the parent organization of BankPro]”* (Project manager service development, 376:376)

In addition to the power relation of the mother organization in the online business project, an important group of customers, i.e. BankPro’s affiliated retail banks that sold its financial services, also influenced the online business project. These business clients of BankPro demanded more activities in BankPro’s online segment, although the internally defined measures for the market attractiveness of financial services delivered online did not yet indicate enough potential. Influenced by this, BankPro was further triggered to start an initiative in order to respond to the demands of their clients. *“...[what we are experiencing] is that the demands of the banks are growing. Well, we are sensing more and more that more [banks] want to incorporate these sales channels, or at least want to add it [to their portfolio] because this is the trend at the moment.”* (Team leader service development, 779:779)

4.4.4 Cross-Boundary Expertise

Besides the facilitating role of BankPro's network and external collaboration, the internal interconnectedness of the project members' expertise areas was also observed to be beneficial to the overall external learning process. This was observed as facilitating both the absorption of external information in the online business project and the Wohnriester project. This beneficial role became especially evident in the knowledge integration phase, once key players such as the legal department had acquired information relevant to the development project. *"And these are mostly relatively experienced people, people who know where the legal boundaries are. Our mathematician, in this case a lady, knows that too. She is also familiar with the legal side in that she does observe the prescribed restrictions"*.(Head of product development, 65:65) *"I really have to say that person X [financial mathematician] or also person Y [product developer] have a relatively good understanding of legal issues. It is very important that there is such an understanding and also that people who work on the product have a certain, not necessarily in-depth, but basic understanding in order to evaluate [the situation]....This facilitates the collaboration. Then you do not have to start at the beginning all over again, , you can explain things and they say, yes I understand."* (Lawyer, 75:77)

However, not only the transition between the acquisition and the integration of external information was supported through this cross-boundary expertise of the projects' key players. During the transition phase from translating the knowledge to its application inside the project, cross-fertilization of task-related knowledge was also observed. Through the general design of the product development process, BankPro intended to facilitate the transfer of tasks between project members in the early and later phases of service development projects. Market managers, for example, who were responsible for the introduction of the developed service on the market by way of training the sales force, arranging marketing concepts, and designing communication strategies, already joined development projects in the early phases, although their direct collaboration was not yet necessary. Managers argued that this early involvement facilitated the transfer of tasks and increased the familiarity of the market managers with the basic characteristics of the respective development project.

"They work in parallel, meaning that as long as the product developers have the project leader role, starting quite early from phase two, there is already a sub-project - "marketing". And the respective project leader calls all sub-project leaders to periodical meetings. In that way, even in

the phase where the product developer has the project leadership, the market manager already knows about all the project activities, not in detail, but he is always informed through the meetings and the minutes. And when the project leadership switches [to the market manager] he is on the same page, does not have to be informed from the beginning, and from then on the product developer acts as a leader of a subproject, takes part in the subproject leader meetings, and thus he is still accessible as a knowledge database for the market manager.” (Head of product management, 27:27)

Through the presence of the market managers in the earlier phases of each project, knowledge flows were facilitated between the project developers who received their information from the legal and maths experts, and the market managers, who were updated on the recent trends by the product developers.

Besides this institutionalized procedure to fertilize cross-functional knowledge exchange, the low fluctuation of the core development team at BankPro as well as the long-standing service development activity at BankPro supported the broad expertise of the project members. Key product developers, the mathematician, lawyers as well as controlling experts had been working together in product development for several years, as the following quote exemplifies. *“And the same people are often in the other departments as well. So a group of employees has actually emerged here who, first of all, know each other. People who can actually exchange information in a relatively short time with a fruitful outcome. Because the relevant expert competences are also on hand, as well as the experience that is frequently necessary.”* (Product developer A, 200:200)

“[We] progressed faster and faster because we could access a pool of knowledge. Everyone working on those projects [are] always the same people. Of course there is some fluctuation, but over many years the same people have constantly been working on the projects. Well, you always meet the same five to seven people in the same jobs over a time span of four, five, six years. And as a result you always get faster, they know their job, and then they are, I think, always capable of picking up new product ideas quickly, and then to market them subsequently.” (Designated head of product management, 24:24)

Analysis of interviews revealed that the experts who held the newly acquired information appreciated the cross-fertilized expertise of other key project members, especially regarding legal information, despite the fact that the degree of overlap was limited to the basic understanding of

legal matters. Cross-boundary expertise in other areas such as market expertise was observed to have been especially relevant to the online business project in which lawyers, for example, applied their knowledge of the prerequisites of the customer interaction process to their search for legal information. As a result, the degree of expertise overlap between marketing and legal experts was observed to have been higher in the online business project than observed during the Wohnriester project. In the Wohnriester project, mostly the basic legal understanding on the part of the marketing experts and mathematicians helped communication among project members.

4.4.5 Prior Knowledge

The basic commitment by BankPro to maintain several highly specialized expertise fields within the headquarters served as a basic facilitator for the general external learning activities. *“And that [product development] is an issue too, because not everyone grasps it immediately. You need to know quite a lot to be capable of acting at all. The others are also high-ranking specialists, a lawyer who has been in this business for years, and he has two legal assistants that he has to keep informed of this matter, as well as financial mathematicians who look after the fine tuning.”* (Head of service development, 237-237). While this quote exemplifies the degrees of expertise in the supporting areas of law and mathematics, the following quote allows some insight into the value of the expertise residing in the product development department. *“Everyone knows what has to be done. We have the advantage that in our project meetings there is really an incredible lot of experts, so that you can give a pre-evaluation in the early stage of a project, which helps really often .”* (Product developer A, 204:204) *“And these are simply experienced people. They have a banking background and have already been at BankPro for a long time, and they know the core product very well* (Designated product management department head, 58:58).

All in all, the degree of expertise within BankPro is high as the above given exemplary quotes suggest, particularly regarding the know-how needed to develop new services.

Yet, besides the generally high level of expertise of the people involved in service development, the stored knowledge of market trends also allowed BankPro - particularly during the online business project - to better ascertain the relevance of available external information. Due to the awareness that in previous years similar numbers of people were using online channels, the bank's experts could estimate that there were no extreme trends in the market for financial services delivered online. Due to this awareness, the bank started acquiring external information about preceding stages, for instance for increasing flexibility in the usage of existing online information portals

rather than immediately starting to develop concepts for online focused financial services. Hence, in the online business project, concrete and stored prior knowledge allowed the bank to focus the type of external knowledge needed towards such solutions as could be used to increase the online information content, and not external information regarding the development of a real financial service for the online channel. Furthermore, besides benefitting from “hard facts” in the absorption of market information during the online business project, the previously existing know-how of the development experts regarding how to realize an online service from a technical perspective further supported the understanding of external technical information in this incremental project. *“Regarding the topic of electronics, or electronic sales support, there we have had [the software] XYZ-TOP running for several yearsthis means this technical background already exists here.”* (Team leader development: 461:481)

In the Wohnriester project, the general, basic know-how of the bank’s legal and maths experts - and not hard knowledge stored in databases – rather supported the understanding of the external information,. Due to these existing foundations in law or mathematics, the experts were more easily able to add new fields of expertise, such as new law sets, to their competencies in contrast to non-experts.

In addition, prior knowledge of the procedures and approaches to developing services in general facilitated the development of the Wohnriester project, too. *“[We] became faster and faster, because we could access a pool of knowledge. Everyone working on those projects [are] always the same people. Of course there is some fluctuation, but over many years the same people have constantly been working on the projects. Well, you always meet the same five to seven people in the same jobs over a time span of four, five, six years. And as a result you always get faster, they know their job, and then they are, I think, always capable of picking up new product ideas quickly, and then to market them subsequently.”* (Designated head of product management, 24:24) However, due to the distance of the external knowledge to the existing expertise inside BankPro, specific experiences from concrete prior developments, other than the general experience in conducting service development projects, were not reported or observed as having been of high relevance to the absorption of external information in that project.

4.4.6 Firm Size

BankPro's firm size played a bivalent role in the absorption of external information. On the one hand, the large size of BankPro played a facilitating role in the ability to profit from external information. Due to the considerable corporate size of more than 3200 employees at their headquarters in Germany, BankPro had sufficient in-house demand to create specialist departments in the fields of law, mathematics or market research. As, at the time of data collection, BankPro was the market leader in its respective market, it was also larger than most of its competitors. *"This is why we were focusing on this topic. And as market leaders we could not say no, or give up without a fight where [others, names omitted] are concerned."* (Project leader Wohnriester, 240-240)

As a result, relative to their competitors BankPro had more resources dedicated to the above mentioned expertise fields. This facilitated BankPro's ability to absorb external information from the national body. Due to its strong internal expertise on specific laws and regulations, the national financial regulation body was in direct contact with the experts within BankPro. In cases in which new regulations were planned on the part of the national regulation body, the national body maintained a feedback loop with leading German banks such as BankPro. *"We are extremely close to change. One of the core activities in this department is - that will perhaps come as a surprise to you -but it is the monitoring of ongoing legislation. That means we are also active in this area. I'll give a concrete example: if the law XY is going to be changed, [...], then the BaFin starts a so called 'consultation' process. It writes to the companies, and in every case to the association of the financial industry, with the request to respond to an attached draft."* (Lawyer, 495-495) As this example shows, due to the BankPro's size, the bank was not only able to dedicate certain internal resources to the operational tasks, but also created certain levels of "slack" which could be dedicated to maintaining relationships to important sources of external information.

These advantages derived from the available resources facilitating the observed absorption processes during the Wohnriester and online business projects. In both projects, experts from the market and legal domains could support the project by taking advantage of externally available knowledge. Data suggests that, due to the existing resources, the experts may have been able to freely search for external information, then analyze and discuss it with fellow colleagues.

On the other hand, to a certain extent BankPro's large size slowed down the ability of the bank to apply the newly sourced information quickly to the development of its new services, particularly

during the radical Wohnriester project. This crystallized in general statements by internal experts regarding the laborious procedure necessary to change internal infrastructure and existing routines. *“BankPro is a big tanker, it is simply such a super-tanker, and when you have a change, that takes a long time; this all has its advantages and disadvantages. And therefore it does not make sense to make a new tariff in the short term, and then I trash it again. We had immense development costs then, but it did not change anything.”* (Mathematician, 033:034).

Hence, while BankPro’s large size facilitated the acquisition and transformation of external information due to the relatively large amount of internal experts available, the firm size increased work loads during the implementation of the novel insights for the radical innovation project, as many pre-existing routines and infrastructures needed to be adapted.

4.4.7 Characteristics of External Information

One factor constraining the ease with which external learning unfolded – particularly within the Wohnriester development project - concerned the considerable ambiguity of external information concerning the legal change. Data revealed that project members involved in learning about the legal change had difficulties in ascertaining the direction in which the legal change should be interpreted in order to advance development efforts. *“You have to know the law was not finally approved until June this year [2008]. There were many discussions and development trends, sometimes to the left, sometimes to the right. I had to roll out the topic and evaluate it again and again from scratch. This accompanied us constantly because, politically, it was not clear in which direction it would go. [We started working]...on the basis of the fundamental conditions known at the time. And then new add-ons, or changes, modifications always appeared. Then we of course had to integrate this again and again into the product development process. A constantly rotating story....without clarity. Even now, not all things are clear regarding some details.”* (Product Developer 77:97) ... *“The legislator...did not agree in all parts whether they wanted “Wohnriester” [at all]. A formal law was created relatively late. The whole time between summer last year and July this year we worked on the product development and made conceptual considerations in a space which tomorrow might not exist any more. If the legislator had said they would not do it in that legislation period, then we would have invested one year of effort, which would not have impacted [at all]”* (Product developer, project leader, 1:155).

These statements exemplify the challenges which arose due to the ambiguous nature of the information about the legal change and its multiple interpretation possibilities. As a result of this, the project members were subject to a constant learning process in order to ascertain that the development project would not move in the wrong direction. This aspect inhibited progress at nearly all stages of the learning process over the whole course of development.

In contrast, in the online business project, the nature of knowledge tended to facilitate the absorption process. As already reported in the process description, both market and technical information was instead sourced directly from different sources. Once routine activities had assimilated that information to the bank's knowledge base could be readily exploited without any of the difficulties interpreting or understanding the available information as was identified in the Wohnriester project. *"Where IT is concerned, you do not have to change anything. You can buy a module, there are thousands [of this kind]. They have certain shop concepts which you can do yourself nowadays. In order to open an online shop, ..., you have this done in one evening, so as to have your products online. So, that is there for us, too."* (Team leader new service development, 783:787).

Although this statement may certainly oversimplify the acquisition of expertise for the online business project and is directed more at the final stage of the project, it does reflect the basic character of information needed for the online business project. In this project, more explicit information had been sourced. Due to this unambiguous information, absorption was supported. Likewise, in terms of market information, this could be absorbed via long-standing routines, indicating the standardized nature of this type of knowledge. *"Well, meanwhile this runs automatically as he [market research expert] passes reports on to me every three months, or at least every half a year. There are rules where we say: for this we need a statement, for example how [online] sales are developing, how did they perform last year"* (Project manager, marketing, 165:166). Also the ease with which the legal department collected information indicates the non-ambiguity of the sourced information. *"Then you simply sit down and in principle go through the online sales channels of other institutions. [...] We just do it once."* (Lawyer, 231:239).

Yet, notwithstanding the different degrees of ambiguity in the Wohnriester and online business project, the information sourced showed certain degrees of complexity in both projects. This became evident in the need to involve internal experts in order to translate the sourced market or technical information. This translation activity was observed to having taken place with all kinds of

information, no matter whether market or technical information, and was also identified in both projects regardless of their differing degrees of newness.

However, it seemed that this basic complexity was a “default” feature of any sourced information and that the organization was used to handling complex information. It became evident that several information processing routines had been put in place which allowed the efficient handling of complex information inside the bank. These routine information processing activities existed both for the acquisition and the transformation of available external information. *“We try to narrow it down via market research reports. [...] Well, these ask repeatedly about the usage of the internet, how the affinity of customers was concerning buying financial products online, such as home loan savings, insurance policies, or other products. In this way we can easily observe how this develops over the years.”* (Project manager, marketing, 53-57) *“I rely on my colleagues [from market research] who provide these reports all the time.”* (Project manager, marketing, 143). *“... First he looks at them [...] and then he makes a kind of summary. Then he always has the interpretation attached to it too with a conclusion showing what he has found out compared to the last time.”* (Project manager marketing, 185-190)

4.4.8 Intellectual Property Rights

The lack of protection mechanisms in service industries seemed to influence the external learning activities at BankPro. This influence was observed to have taken place in the absorption of market knowledge. As reported in the section on the general new service development process at BankPro, the bank maintained several stages of which one concerned testing the service service in the market. As reported, however, this stage, had not been applied to service development activities for several years. In consequence, no such market testing was observed either in the Wohnriester project or in the online business project. Market testing may, however, serve organizations as an important source of information for checking the fit of the service concept with customer needs and expectations. Yet, although relevant information could have been sourced via market testing, BankPro did not engage in such activity due to the potential risk of leakages of the new service characteristics to other competitors. *“Once all steps have been followed, then we do a pilot run in practice. However, this is often not possible because then we would disclose our product innovation to our competitors. When we put a new HPS tariff on the market, we never do a pilot run; this simply does not work because then everyone in the market knows what we have in mind. So it has to be launched with a drumbeat.”* (Head of service development, 023:023)

The need for service organizations to speed up their “time to market” is related to the lack of appropriation possibilities. BankPro reported wanting to be first on the market with their idea so as to outperform its competitors and in order to achieve potential first mover advantages. This may be especially important in markets in which new services are not protected by mechanisms such as patents. This striving for being first in the market constituted a second, related, argument as to why BankPro did not engage in external learning via market testing.

“That has to do ... with time-to-market. Naturally, you want to be ... first. Due to this, it is written in the product development process that we may also do pilots, but actually in the last years we have got along without them.” (Head of Marketing division, 63:63)

Learning about technical aspects was not constrained by the lack of protection mechanisms. Where technology was concerned, thus especially in the online business project, BankPro benefitted from the imitation possibilities in the service sector. In this case, the technical realization of the web services offered by BankPro’s competitors served as a helpful input for internal development activities. *“In recent years, we were once interested in how our competitors were offering an online contract in the internet. And then [we] did test purchases, for example, ok? And then we could easily see how this works [...]. And that was very informative for us.”* (Project manager marketing, (063:063). This availability and the opportunity to exploit competitors’ solutions was also observed in the Wohnriester project. In this case, the project manager of the Wohnriester project could easily integrate available technical information residing within a partner’s organization into the Wohnriester development activities, as no formal consent or copyright of this technical information needed to be considered. Hence, the use of externally available technical information was facilitated due to the non-existence of protection mechanisms for this kind of information. *“Especially in relation to Wohnriester, company CV created know-how, because the legal topic has existed in general since 2001. They are also market leaders in their market. And there are certain things where we tried to get information in order not to ‘re-invent the wheel’. There we resorted to their know-how and competence.”* (Product developer, project leader, 351:351).

All in all, absorption of external information was both facilitated and limited. While the lack of protection of intellectual property potentially constrained the absorption of market knowledge, technical knowledge absorption was seemingly facilitated.

4.4.9 Mindset

Particularly within the Wohnriester project, the general awareness of the considerable degree of newness influenced the employees' mindset concerning the need to look for new information outside the firm. As the degree of newness was quite low for the online business project, a mindset for change was not observed to be present there and hence was not identified as an important influencing factor.

In the Wohnriester project, members of the project group reported a high awareness of the need to learn from external sources. This need was observed to be grounded in the awareness that existing expertise and practices inside the organization would not suffice to develop a new service based on the upcoming changes in the legal context of the bank. *"...As regards 'Product XY', this is a completely new product involving completely new processing approaches. For this, all people involved had to first deal ... with the new legal propositions [from the government] in order to understand what will be tax supported [by the government]. "And this constitutes a real challenge: To transfer a completely new product, with totally new systems, into the mindsets".*" (Product developer A, 306:307). As crystallized from this and also from the next quote, organization members involved in service development seemed to have created a mindset which comprised being conscious of the radicalness of the upcoming change which, in turn, created awareness of the need to search and understand how these changes would affect the wider organization. *[Wohnriester] ... does not yet exist in the market, has never been there in this way, and there we have to look in every corner of the house in order to see where this project or product has consequences or relations".* (Product developer A, 46:46)

Finally, the organization members' mindset not only comprised awareness of the need to search for new insights on how to respond to the change, although employees were also aware of the need to constantly scan the environment and to continuously adapt internal development activities to a constantly changing external environment. The following quote indicates this sustained awareness of change and also the willingness to invest extra effort in the response to the observed changes.

"Well, in February there was this draft bill that we were basing our project on because it was already relatively concrete. Then, in March we went into action and communication started. That continued until about July. And then the law was passed, and there were again parts in it that we didn't know prior to that, for instance, the parts about young people or the Riester contribution. Then we added another campaign, especially for young people; but we had already planned that all

beforehand because we had defined scenarios. For instance, we said that in scenario 1 there is an exemption for young people, but none in scenario 2. And we said we would take the former in case 1 and the latter in case 2. This went on all the time so that we would really be able to react very quickly. Because that was the main challenge in this project: to be able to react immediately any info arrived or if any deadlines in the legal procedure had been passed. That's why we worked with scenarios". (Market manager, marketing, 333:339)

Hence, for the Wohnriester project, the employees' mindset and awareness of the novelty of the project seemed to facilitate their willingness to constantly look outside for new information and also to be open to change their internal ways of working correspondingly, if necessary. In contrast to this, such a mindset for change was not observed in the incremental online business innovation. Instead, the development of this innovation was considered to remain within the boundaries of the bank's existing expertise. This became obvious, in part, through the use of standard routines in order to acquire external (customer) information and the statements by legal experts that the information needed from outside could be directly applied with the help of existing internal expertise. *"Well, meanwhile this runs automatically as he [market research expert] passes reports on to me every three months, or at least every half a year. There are rules where we say: for this we need a statement, for example how [online] sales are developing, how did they perform last year?"* (Project manager, marketing, 165:166). *"Well, these topics, the topics are known, those were from time to time relevant in different issues since years, also the topics which I named just before, like data protection law or the telephone marketing, that is not really something new."* (Lawyer, 205-205).

Hence, while a mindset was observed to be present in the Wohnriester project which was open for future change, in the online business project such a mindset for change was not observed, as the incremental nature rather called for the use of already existing competences and routines, and hence openness for change did not seem to be as relevant as for the radical innovation project.

4.5 Summary of Findings: BankPro

4.5.1 Wohnriester

Within the Wohnriester project, highly active absorption activities were identified in the analysis of the interview transcripts and additional data from internal and external sources. At the same time,

this project constituted a radical innovation for BankPro, which was also reflected after the degree of change in various service dimensions had been assessed. In all three service dimensions, i.e. technical characteristics, provider competences, and client competences, substantial amounts of novel components were introduced which created a completely new service in comparison to the already existing services within BankPro and in the respective market in which the bank operated. Performance evaluation on the basis of time-to-market and market success thus revealed that the project had been developed in time and could be launched as the first service of its kind in BankPro’s respective market. In addition, market performance was shown to be considerably higher than internal staff of the bank had expected, consequently surpassing internal performance thresholds.

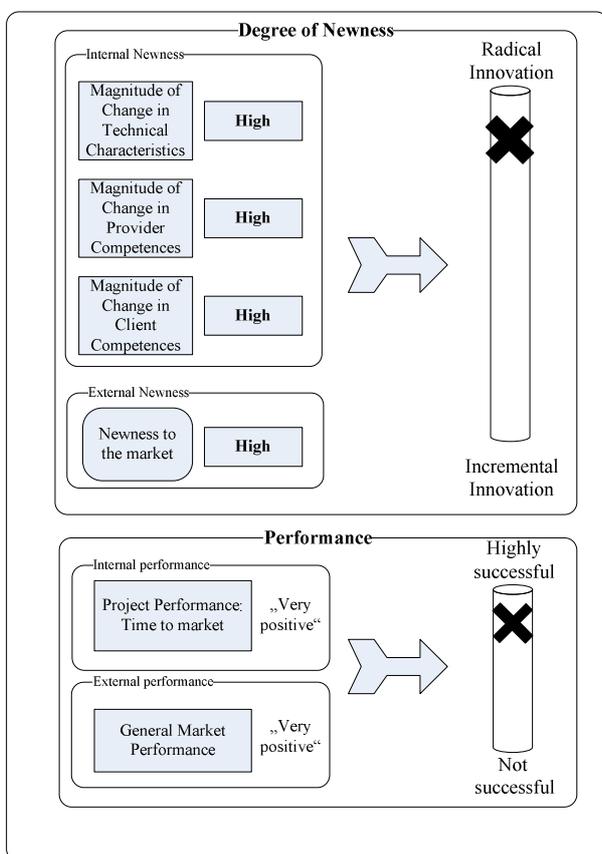


Exhibit 27: Degree of Newness & Performance (Wohnriester)

As regards the absorption process, a distinction was made between market and technical information absorption, as different processes were in place for each type of information. Where the process for technical information absorption was concerned, five interwoven phases were identified in the data which included both legal and IT-related information, as both types of information were highly interrelated. The process started with the recognition of the value of external information for

an innovation project. This was followed by the acquisition of the recognized information. Subsequently, a transformation of BankPro’s internal knowledge base took place in order to be capable of understanding and translating the externally acquired information in the fourth phase, i.e. transformation of the external information. Finally, the transformed external information was applied in the service development activities via the application phase. This process was repeated several times during the Wohnriester development project. Furthermore, several phases overlapped and were performed in parallel to each other, as the next figure depicts.

The market information absorption process showed similar phases although, contrary to the technical information process, no internal transformation of the existing expertise areas took place, as the externally acquired information could be translated and applied with existing expertise. Further, the absorption process was also iterated several times during development, yet no parallelism or considerable overlap between the individual phases was observed, since the acquired information did not change as fast as in the case of the technical information absorption. Additionally, both the market and technical absorption processes showed considerable degrees of interrelation, as the absorption of market knowledge benefitted from previously absorbed technical information and vice versa.

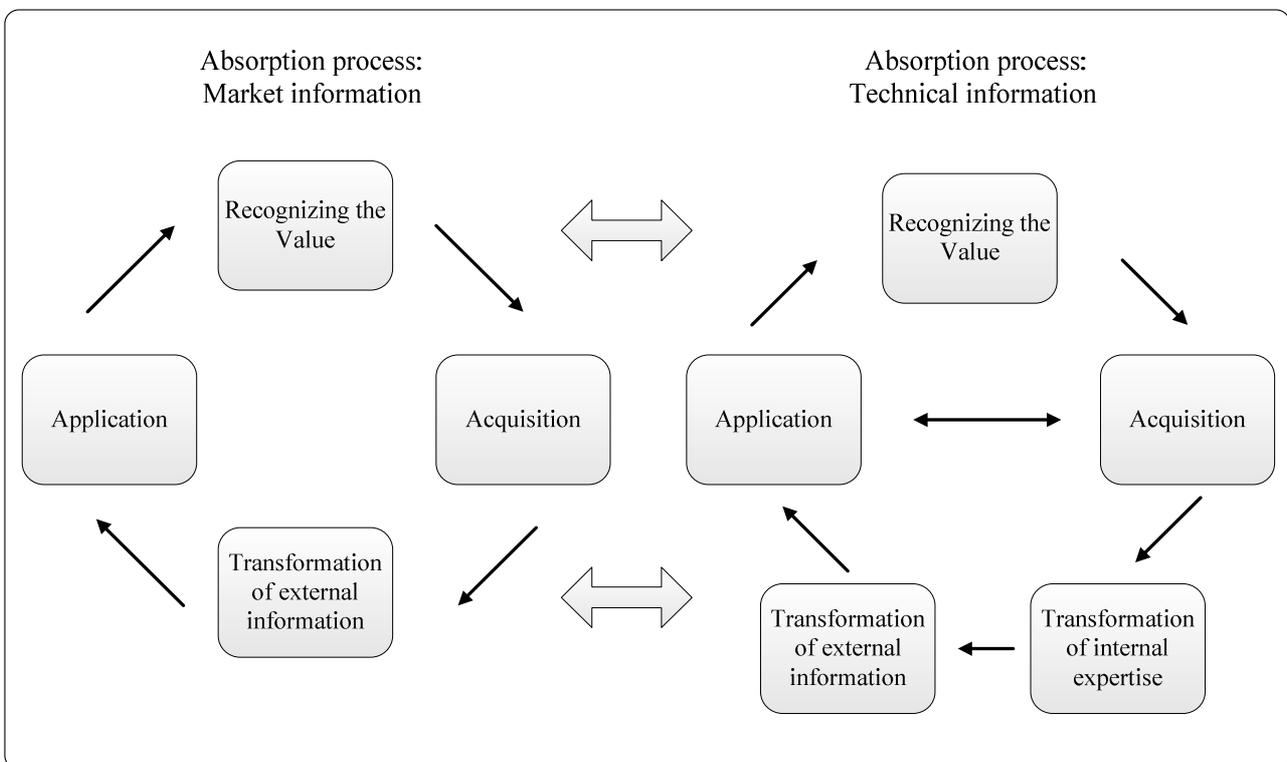


Exhibit 28: Absorption Processes (Wohnriester)

Regarding the relationship of the ACAP process with the general innovation process, additional findings have been made. First, the ACAP process paralleled the at times highly iterative innovation process. In general, after the project was started, required information was recognized and acquired and then transformed in parallel to the analysis and conceptualization of the Wohnriester service concept. The transformed information then was applied during the implementation and realization of the new service. Here no different patterns were observed regarding market and technical absorption when compared to the flow of the general innovation process. Both showed a similar relationship to the general conduct of the innovation project and were both highly iterative in nature. The following figure delineates this pattern:

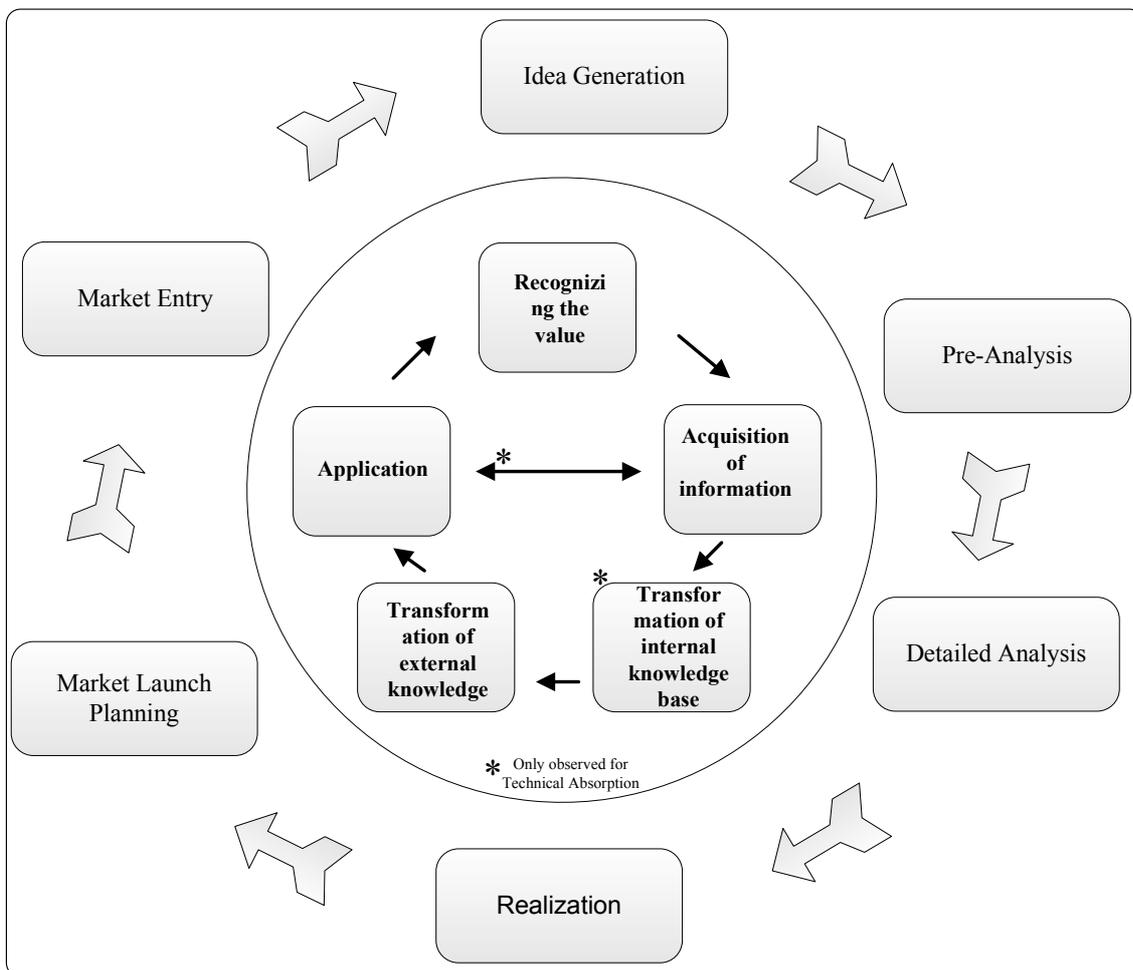


Exhibit 29: ACAP and the Innovation Process of Wohnriester

4.5.2 Online Business

The online business project at BankPro constituted an incremental innovation project which was aimed at improving the online banking functionality of the bank’s main service offerings. This crystallized after analysis of different service dimensions. In the three service dimensions explained earlier, only little or moderate changes were observable. As no new service was introduced, but instead rudimentary online services improved in this project, no external market analysis was necessary to buttress the evaluation of incrementality. In addition, the performance of this incremental innovation project was good, as far as a final assessment was possible during data collection. The realization of the project was progressing well at the time of data collection and no challenges or difficulties were observed to have taken place during the already accomplished tasks. The final tasks still to be performed were also regarded as being of a comparatively standard nature.

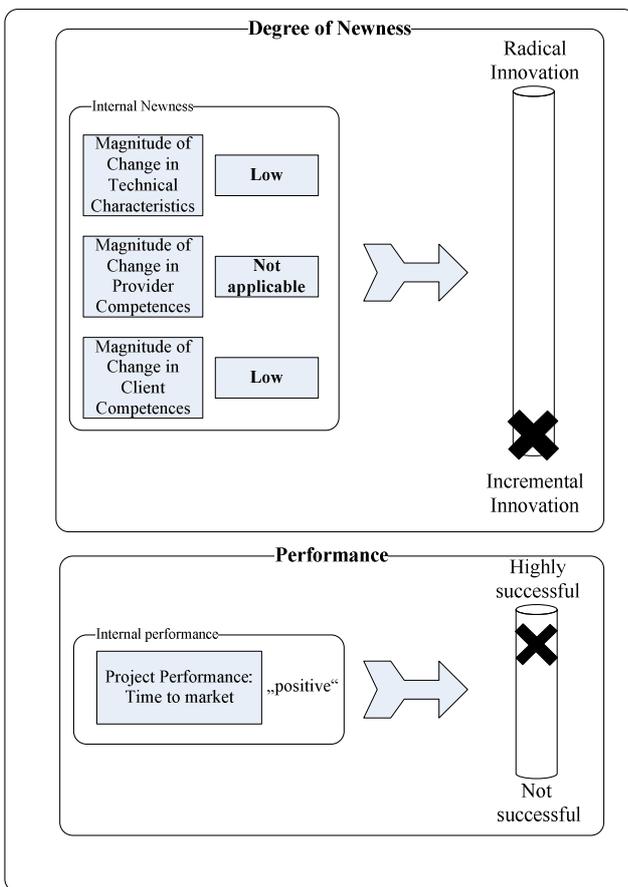


Exhibit 30: Degree of Newness & Performance (OnlineBusiness)

The online business project at BankPro also involved both technical and market-related absorption activities. As in the Wohnriester project, the technical absorption mostly comprised legal information needed for the technical realization of the service. In this case, four phases were

observed, i.e. recognition of the value, acquisition, transformation of the external information, and application. In addition to the non-existence of any transformation of internal expertise, neither iterations nor parallel phases were observed as external technical information absorption was observed to have taken place in a sequential manner.

The absorption process for market-related information showed identical phases, although some iterations were observed in this case. Information on market characteristics was sourced several times before and during the project. Yet, similar to the technical absorption, no parallelism or overlap between the individual absorption phases was identified in the data, while limited interaction between the overall market and technical absorption processes were present.

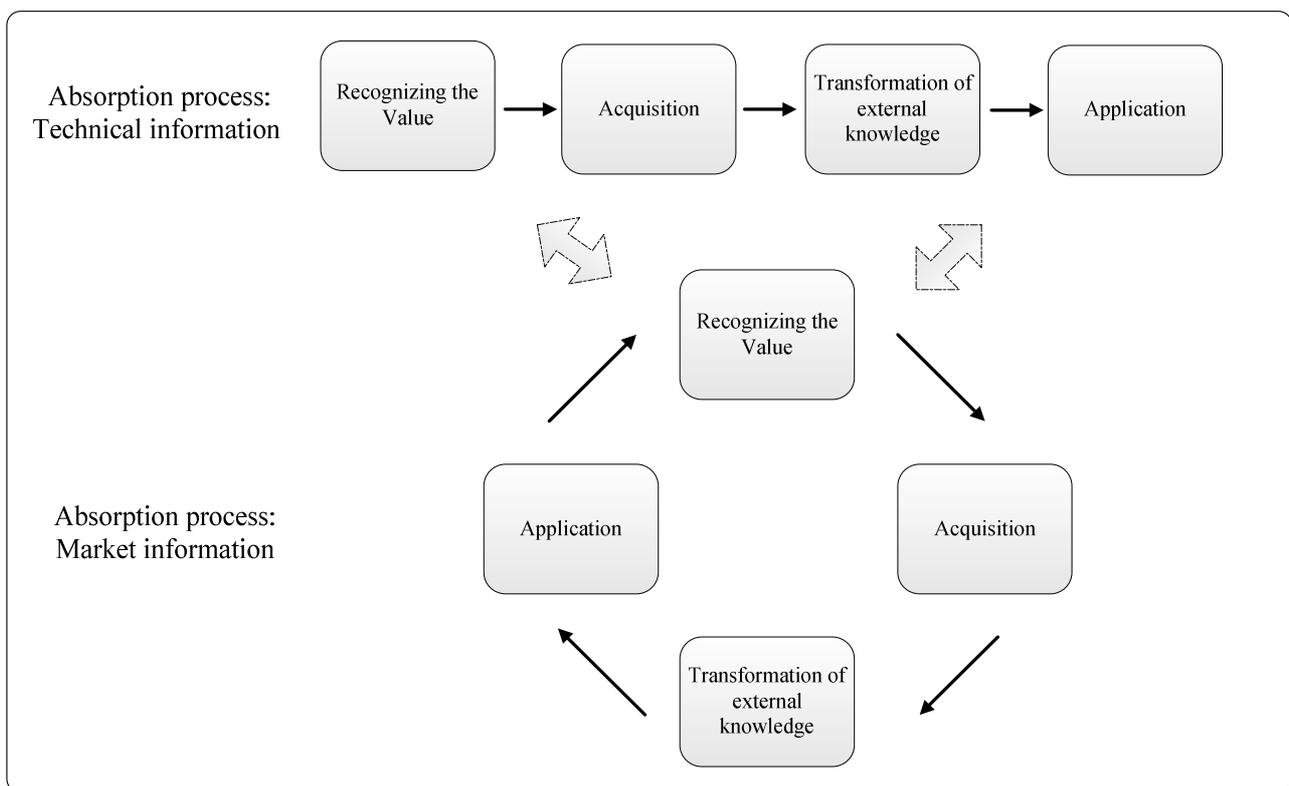


Exhibit 31: Absorption Processes (Online Business)

Regarding the relationship of the ACAP process with the general innovation process, a parallel pursuit of both processes has been observed, similar to the Wohnriester project. In more detail, during the early phases of the innovation process also the initial phases of the ACAP process were

conducted and towards the implementation of the service, also the last phase of the ACAP process was being conducted. Hence, both processes paralleled each other to a considerable degree. Further, no iteration of the innovation process was observed, as no sudden changes in the external environment appeared. Neither were errors spotted which would have necessitated a reworking of already performed tasks. While most of the absorption activities neither showed large degrees of iterations, the absorption of market information was performed iteratively. Yet, due to the non-changing nature of the market environment, no new and different information was absorbed and hence no iteration of the innovation process was needed. The following exhibit visualizes these observations.

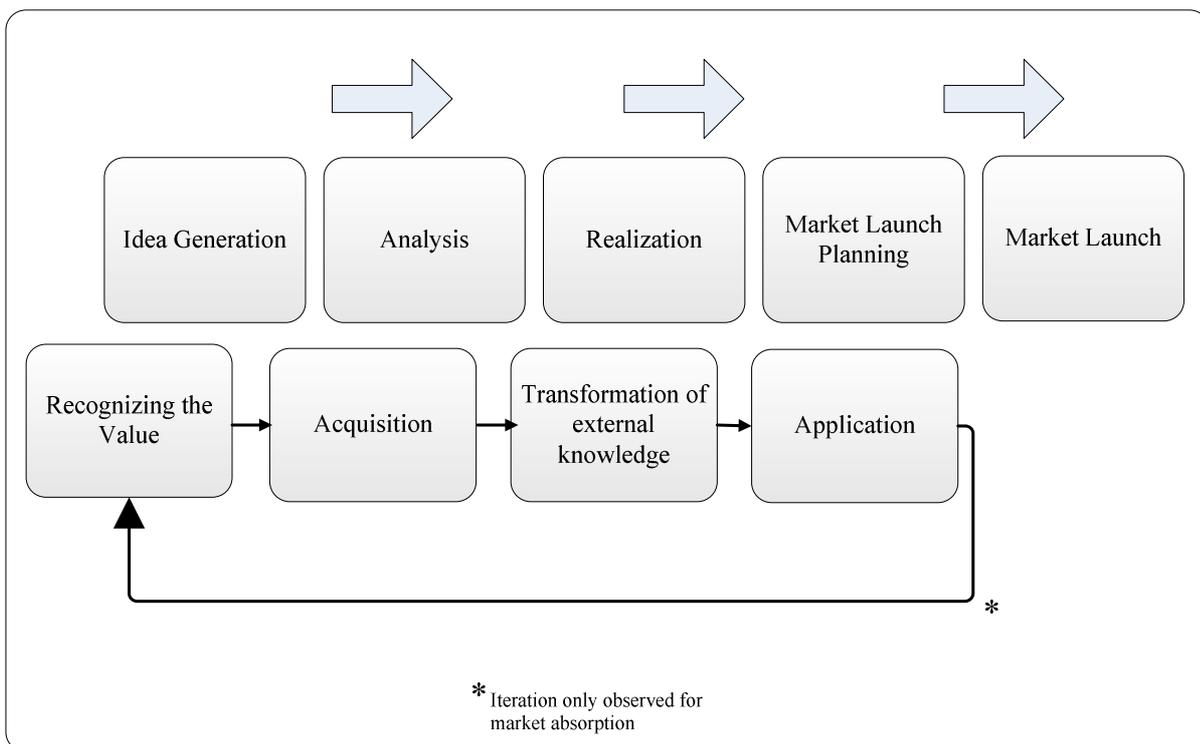


Exhibit 32: ACAP and the Innovation Process (Online Business)

4.5.3 Facilitators and Inhibitors

Several factors were observed as inhibiting or facilitating the absorption of externally identified market or technical information. To start with the Wohnriester project, social integration mechanisms, i.e. mechanisms for sharing knowledge among the members of the organization, facilitated the absorption of both market and technical information. In the case of the online

business project, however, social integration mechanisms were not found to have been important factors for this incremental innovation.

Further cross-boundary expertise of internal project members, meaning the partial overlap of expertise among the various experts involved, was helpful for the absorption activities. Yet, while these were of utmost importance during the Wohnriester project in order to cope with the high dynamism of the absorption process, the cross-boundary expertise only marginally supported absorption during the online business project as less information was sourced under more stable conditions.

Also broad prior procedural know-how and experience in “service development” supported, in particular, the Wohnriester project, as such experiential prior knowledge promoted the collaboration between the various project members involved in recognizing, acquiring, transforming and applying novel external information. In the online business project, absorption of externally sourced market and technical knowledge benefitted more from existing, explicit internal knowledge such as already available technology or customer databases.

The change-adaptive mindset of BankPro’s employees regarding the urgency and relevance of this project supported the absorption of both market and technical information exclusively during the Wohnriester project. During the online business project, such awareness of change and appreciation of external information was not needed due to the low degree of newness of the project for the project members and the corresponding proximity of the necessary external information to the project members’s expertise areas.

Power relations with internal and external actors also facilitated the absorption activities during the Wohnriester project, as their claims and convictions relating to the importance of the underlying legal change released the internal resources necessary for acquiring and transforming external information. Interestingly, these power relations existed both internally within the bank as well as externally via the bank’s association or customers. However, whereas in the Wohnriester project both internal actors in combination with the external association of home loan banks influenced the absorption process, in the online business project, external customers played a greater role in motivating the overall project and, in consequence, influenced the search for corresponding information outside the firm.

As for network partners, especially the quality of relationships as well as the availability of variegated, multiple information sources supported the absorption activities during the Wohnriester project and, due to less need to source information from network partners, also supported the Onlinebusiness project to a lower degree. Reasons for this facilitating effect were rooted in the larger amount of available, relevant information and access to the partners' information which was facilitated through trust relationships.

The lack of protection mechanisms for service innovation reduced the amount of absorbed market information for both the online business and the Wohnriester project. As the new services could not be protected via patents or other appropriation mechanisms, organization members feared that valuable information could "leak" out to competitors as a result of exposing the novel services to customers prior to the market launch. Due to this perception, no market tests were conducted, inhibiting the absorption activities geared towards market information in both projects.

On analyzing the role of the nature of the externally sourced technical information, both inhibiting and facilitating elements were revealed. The high degree of ambiguity, i.e. the multiple ways of interpreting the novel technical information, as well as the implicit nature of the sourced information, increased the absorption-related workload in the Wohnriester project. In the online business project, the more explicit nature of the externally sourced technical information facilitated the absorption process as less effort needed to be put into understanding and translating the novel information.

The large firm size was identified as having positively influenced the initial phases of the absorption process due to the large number of internal experts and amounts of resources available. In later phases of the Wohnriester project, however, the large firm size inhibited a quick application of the absorbed information due to the complex infrastructure and routines caused by the size of the firm. As the online business project required fewer changes to be made inside the organization due to its incremental nature, such an inhibiting effect of the firm size on the application of the externally sourced information was not observed.

Facilitator / Inhibitor	Characteristics	Impact on absorption during Wohnriester	Impact on absorption during Onlinebusiness
Prior Knowledge	Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge)	Facilitating: Breadth of prior service development know-how & Know-About	Facilitating: In-Depth technical expertise & customer knowledge (databases)
Nature of external knowledge	Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data)	Inhibiting: High degree of ambiguity No effect: Rel. High degrees of complexity Inhibiting: Increased amount of Implicit external information	Facilitating: Low degree of ambiguity No effect: Relatively high degrees of complexity No effect: Some implicit information, yet due to reduced amount no effect on absorption
Mindset	Appreciating external information (in contrast to „Not Invented Here Syndrome“) Being aware of the need to adapt	Facilitating: External pressure resulted in awareness of radicalness and made project members receptive for changes and made them accept new external insights	No effect: No specific attitude of mindset of project members was observed as project was rather perceived as „daily work“
Social Integration Mechanisms	structures supporting the sharing and interconnectedness of different internal expertise areas	Facilitating: Intense and frequent project meetings plus informal communication channels facilitated absorption related collaboration and communication	No effect: Sharing mechanisms were not highly relevant as only limited information needed to be shared and with less iteration
Cross Boundary Expertise	complementary functions within the organization ought to be intermeshed redundancy in expertise	Facilitating: Project members showed overlap of their expertise with other affected disciplines which supported understanding and communication during absorption	Facilitating: Overlap between marketing and innovation department supported acquisition, transformation & application of external information
Power Relations	relationships involving the use of power and other resources by an actor to obtain his preferred goal	Facilitating: External & Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information	Facilitating: External business customers created focus for absorption activities. Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information
Network of External Partners	Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship	Facilitating: Broad set of external ties, high quality of relationships, and some overlap of the external partner's expertise with the banks expertise allowed for more complete information access and understanding	Some facilitating effect: In general lower relevance of network than for Wohnriester project, as information was sourced several times from freely accessible sources or customers. Quality of relationship was, however helpful in some instances
Firm Size	Number of employees, market position in relation to competitors	Facilitating & Inhibiting: Large amount of available internal expertise & resources facilitated acquisition and transformation, while complexity of routines inhibited application	Facilitating: Large amount of available internal expertise & resources facilitated acquisition and transformation, proximity to internal expertise & limited scope of absorbed information facilitated also application
Intellectual Property Rights	Low degree of protection mechanisms available to shield service innovation from imitation	Inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests	Inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests

Exhibit 33: Facilitators & Inhibitors BankPRO

5 Case Study Report II: BBVA

5.1 Overview of Innovation Activities at BBVA

5.1.1 Description of the Case Study Organization

BBVA, Banco Bilbao Vizcaya Argentaria, is a large retail bank, offering a wide array of financial services to both end-consumers and business clients. In Spain, BBVA lists as the second largest bank, after Santander, and was founded 150 years ago in the north of Spain, i.e. Bilbao. While the origin of BBVA clearly resides on the European continent, BBVA expanded to the USA, South America and Mexico, in Mexico being the largest financial institution, and listing among the 25 largest financial institutions in the USA besides being one of few successfully operating western banks in China.

In 2008, BBVA employed 112.000 people, serving over 47 million customers in over 30 countries. While BBVA strongly expanded during the last years, it kept hold of its basic corporate principles, focused on a strong customer orientation, and dedicated innovation as an engine for future growth. In 2009 BBVA achieved to enter the league of the seven largest banks worldwide, measured in market capitalization.

5.1.2 External Context

The external environment of BBVA is characterised, by Spanish regulations of the banking sector, increased competition in the core business of BBVA, as well as changes induced by the global financial crisis.

As regards the regulatory environment for BBVA, the innovation activities followed within the bank were affected, too, although no financial product was developed. In fact, all innovation analyzed did fall outside the core business of BBVA, as no loans, savings or other financial products were developed. Yet especially the non-core focus of BBVA's innovation programme necessitated a distinct management approach to their innovation projects. Being a retail bank, BBVA was not permitted by country's financial regulations, to develop services not related to its banking license. This resulted in the situation that many innovation projects, once launched, needed to be transferred to newly created external firms. This, however, did not affect the further improvement and guidance of these formal "spin-offs" by the BBVA innovation centre. Although projects were transferred to new legal entities, the further improvement still was done inside BBVA

to a large degree. *“Well, theoretically a bank is not permitted to sell a product which is non-financial, ... do you know for example that the bank-branches offer travel [agency services], gyms, cars, and therefore. The bank must not offer those services because they are not within their corporate purpose. What the bank does is creating a company which has as a corporate purpose like those travel services or other specific things in order to be able to do these kinds of transactions...”* (Marketing expert, Centre for Innovation, 097:106)

As regards the financial crisis, here members of the innovation centre within BBVA mentioned direct impacts of the crisis on the innovation activities of BBVA. Yet, impacts were reported to be more of an ambivalent nature. As BBVA's customer base to a large extent was based on small and medium sized firms, managers within BBVA see a challenge for the bank due to the large impact the crisis has on this large segment of the bank's customers. More precisely, while the bank feared that a considerable percentage of these clients would purchase less core-financial products, also recently developed innovations such as an online accounting service for small and medium sized organizations were potentially affected by the consequences of the financial crisis and subsequent economic downturn. *“The challenge which it will be confronted with in the short term is the national economic situation. The clients of Econta are small companies with maximal ten employees and small professionals, per definition. In a financial crisis those are the clients, or those are the companies which suffer most. Insofar, our client basis, 90% are of this type, Econta will suffer, it will suffer with the crisis, logically.”* (Project leader Econta service, 481:483)

In contrast, other services of the bank, such as the Tucuentas personal finance management software were thought of benefitting from the crisis. As the project leader of this innovation argued, the financial crisis would increase the awareness of consumers to manager their financial situation, which, in turn, could increase the value, online banking users may derive from the novel tucuentas service. *“I believe what the crisis has done is increase the degree of usage of the application because today what the people have ... precaution about how to use their money, ... and try to understand much better how they manage their money. Therefore in this sense I believe it increased the use of the application because it is oriented exactly towards this.”* (Project leader, 170:171)

In addition to these specific impacts of the external context on the business of BBVA, also increasing competition in the core-sector of BBVA's business model affected innovation activities of the bank. As data revealed, BBVA noticed the trend in their core financial services that not only incumbents of the market, i.e. other banks, were increasing the competitive pressure on their services via reduced prices and cost cuttings, but also originally non-financially oriented service

firms such as retail companies or grocery chains introduced in recent years financial service offerings such as consumer-loans or credit cards. Induced by this increased competitive pressure, BBVA responded by investing not only in innovation within their core business, but invested also in the development of non-core innovations, which would open up new markets and cross-selling opportunities. *“It is as easy as this: When even supermarket chains enter our market of retail banking already, we need to respond to this by entering into non-banking businesses in addition to our core-banking business.”* (Marketing expert in the center for innovation at BBVA)

Besides these external market pressures, also technological advancements made in the external context of BBVA influenced their innovation activities. Nano-technology, or new possibilities to transfer service offerings to the digital domain initiated a strong technology focus within the innovation activities of BBVA. *“We believe that the industry is going to be totally different. We believe that there are going to be inconvenient [changes] which will be appearing. It is already happening in a very small scale but remember digitalization is changing the world, whatever, whatever, whatever can be digitalized it’s gonna be digital, it is already or it’s gonna be digital. Remember what happens with the music industry, digitalization comes, and they have almost disappeared . And with the Photo Industry Nikon, Kodak. Because they didn’t see the power of digitalization, Encyclopedia, think about Encyclopedia. So life in finance is going to be different it may happen to us we have to be ready for that the same as p2p lending will...we have to be ready to be monitoring very closely.”* (Marketing expert, Centre for Innovation, 133:147)

All in all, the external context influenced several innovation activities. While increased competition served as a trigger for the bank to strengthen their innovation activities, the financial crisis either supported or inhibited the success and future perspectives of single service innovation projects, rather than affecting the whole innovation strategy of the bank. Finally regulatory aspects impacted on innovation projects, yet only regarding their legal structure.

5.1.3 Internal Organization of New Service Development

At BBVA, innovation projects were treated as unique and were either pursued in the market-specific innovation divisions or in the in 2007 founded innovation center at the corporate level, located in Madrid, Spain. While responsibility of product innovation was handed to Manuel Castro, head of innovation at BBVA, Top executives such as the chairman of BBVA participated on a

regular basis in strategic innovation councils, which were installed to provide advice and support for novel, promising ideas and projects.

Beneath the head of innovation, different project groups took responsibility in leading different innovation projects, which were identified priory by the department members, and which fit to the strategic innovation orientation of BBVA. In addition, BBVA decided on each promising idea individually, whether it is being developed in-house or handed over – in part or fully - to an external partner, if it was not even developed first hand by an external start up company. Indeed, BBVA decided from early on, to not force different and highly varied innovation projects into the same innovation management approach. Hence, various approaches to developing a new service innovation could be found inside BBVA.

Hence, at BBVA no formal development process structure was defined. Yet, for parts of the development work, routines had been established. Firstly, each innovation project started with the basic investigation of the customer's needs. As became evident in different project examples, the bank put their client needs first. In addition, each innovation project had access to the so called business partner department, in order to acquire the most recent information about technological options to support the innovation project. After these initial steps had been accomplished in order to narrow down the choices for the development of the subsequent service concept, IT-development, prototyping and the final market introduction had been observed as having been frequently pursued activities during BBVA's innovation projects. Hence, the figure below depicts frequently observed activities in different projects at BBVA.

Innovation Process at BBVA

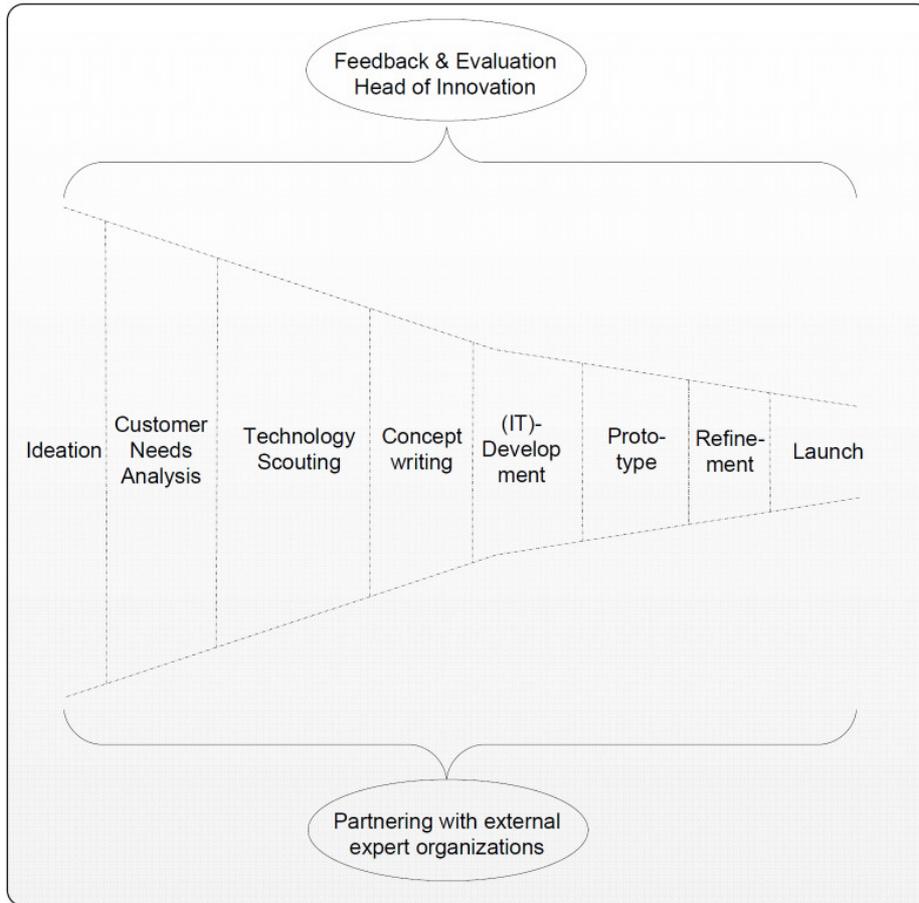


Exhibit 34: Meta-Innovation Process BBVA (Ramis & Droege, 2010)

5.1.4 Observed Service Development Projects

At BBVA, several innovation projects were being opened up to the researchers. Overall, five projects have been analyzed within BBVA and in particular within the Innovation Center of BBVA in Madrid. This opportunity to study a large number of innovation projects within the bank allowed for a choice of specific projects for inclusion in this case report with characteristics which suited the research aims best. In more detail, two contrasting projects were included in this report in order to assure that both radical and incremental innovation projects would be covered. The other innovation projects have been presented and analyzed in the corresponding teaching case and teaching note by Ramis and Droege (2010) “Innovation at BBVA”.



A few years ago, BBVA identified the fast potential which modern web-technology offered to retail banking, and BBVA envisaged that customers might appreciate additional online banking services so as to manage their own financial activities better and make them more transparent, such as what they actually spend their money on or how they spend their money in comparison to their respective peer group, and how they could optimize their spending habits. *“The objective of innovation in the group is to generate products and services which are useful to the individual person. In this sense, Tú cuentas really represents an example of how we are developing innovation inside BBVA.”* (Manuel Castro, head of Innovation and Development)

In addition to enhanced user experience and increased functionality and flexibility, BBVA also aimed at allowing its clients to also integrate banking information from other bank accounts outside BBVA (see Exhibits 4 & 5). Especially this last function created a unique service concept that was new to the market of retail banking. Since solutions for online banking were limited to basic money transactions and stock trading possibilities during that period of time, BBVA decided to search for a company capable of developing and maintaining an application which could respond to BBVA’s discovery with the right technology, which, in addition, could be integrated into the existing technological infrastructure. (Ramis & Droege, 2010)

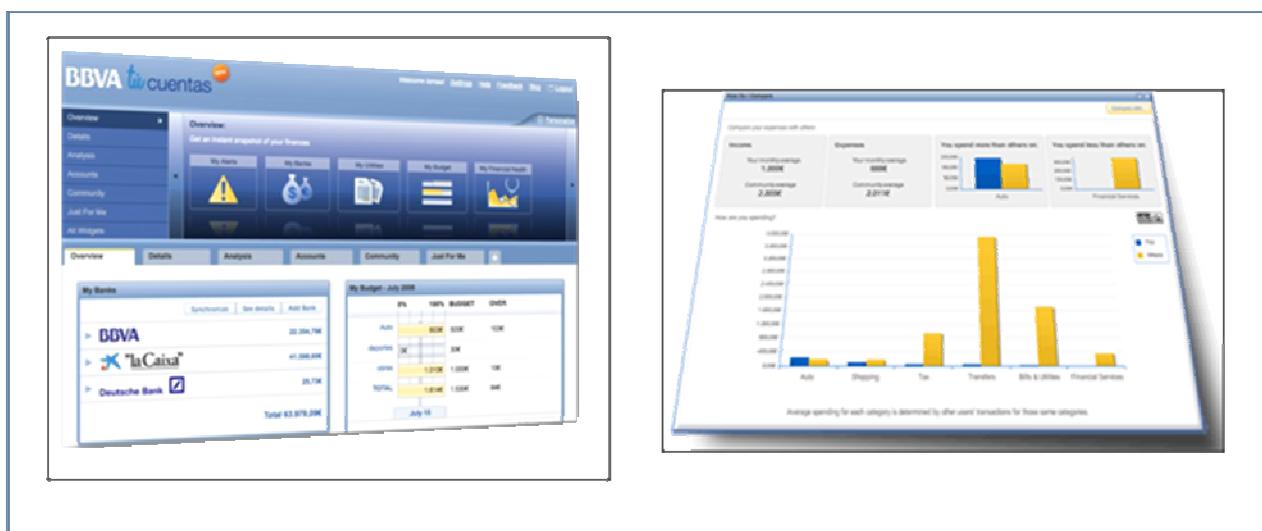


Exhibit 35: Tucuentas – Website (taken from Ramis & Droege, 2010)



“Premium”

The idea of eConta, a personal online finance management service, offering online accountancy services to SMEs (Small and medium sized enterprises), was conceived during BBVA’s regular attendance at national and international start-up company congresses. The envisaged potential of eConta was particularly based on BBVA’s conviction that the general quality of accounting service was still poor in Spain, as SME were still used to handing in documentation about their income and expenditures every three months, shortly before the taxation office deadline. This resulted in the fact that SMEs had no - or only infrequent - transparency concerning their cost and income ratio, or at least had no means to analyze their financial situation over time on a detailed basis. Fueled by BBVA’s awareness that this service – which for decades had gone unchanged - was due for novel, innovative business solutions, a 70% stake in eConta was purchased in June 2007. A further reason was the potentially large target group and the fit and synergistic opportunities of accountancy services with other financial offerings of the bank. In particular senior management identified the potential of integrating the databases of eConta and the clients’ potential online BBVA bank account information in order to automate considerable elements of the tax calculation. From that date until February 2009, BBVA did not interfere in the management of the company, nor in the design and characteristics of the offered accounting service.

Then, in February 2009, BBVA decided to become more actively involved in the business of eConta and defined a project leader for eConta, who would create a link for the exchange of ideas and practices between the start-up and BBVA. In this pursuit of tightening the relationship between the bank and the start-up, BBVA started an improvement initiative lead by internal staff of the bank. Aim of this improvement action plan was the development of eConta Premium, an added service to the basic eConta accounting offering which aimed at offering a more convenient data entry procedure for the small and medium sized client organizations. In more detail, eConta Premium was designed in order to collect the paper based information of its clients and to digitalize them with internal document-management technologies. With this added service, clients would need to spend less time on using the eConta service, as no data entry of the clients was needed anymore, but was performed by eConta on behalf of the clients. This was enabled through latest scanning and

digitalization software. The case report hence is focused on this improvement via introduction of a premium line to the existing service offering.



Exhibit 36: eConta Homepage (Date of retrieval: 20.08.2010)

5.2 Project I: TuCuentas

5.2.1 The Development Process of Tucuentas

TuCuentas was developed inside the centre for innovation (CI). Development started in January 2008 and lasted until January 2009. While the project leader was positioned in the core innovation development team within the CI, other team members were sourced also from the outside of the center. The project started from the strategic innovation plan of BBVA and first directions given by the head of innovation, Manuel Castro. The head of innovation envisaged that a future online banking design would embrace enhanced flexibility and the offering of services not bound only to the management of financial services of BBVA, but would integrate bank accounts from as many banks, as the client would be maintaining relationships with. From this initial inspiration, senior management of BBVA engaged in a search for a partnership with a specialized start-up company, in order to access expertise in latest technology and web programming. During a start-up faire, Strands.com was discovered, a highly successful start-up company specialized in developing web-services based on latest programming standards and which was well known for its creative potential due to prior projects related to a web-service for the iPod Nano / Nike Shoes.

Subsequently, BBVA acquired a 24% stake in Strands.com which was followed by the creation of a project group amounting to 60 members inside BBVA plus various members sourced from Strands.com. The actual development work started with a study of basic client needs in order to reveal to what needs of future clients, the new online banking service would have to respond to. These market studies were performed in parallel to the contract and acquisition procedures with Strands. In late May 2008, the project was presented to Manuel Castro by illustrating the future service with a partially working application of the later web-service. Due to the acceptance of the level of progress made in the first half of the project, further development was supported by the head of innovation which was followed by further programming.

As development methodology, the project manager chose a specific IT-development process model, called SCRUM. This methodology contains rules of constant feedback and critical discussion of already accomplished development in daily and monthly cycles. This methodology allowed the project team to reflect on the work done and to identify errors and misspecifications in early phases. In July 2008, a beta version of the new web-service was made accessible to a restricted numbers of external beta-testers and internal staff in order to learn from their usage-behavior and to take their feedback and suggestions into consideration. After three months of intense feedback and subsequent changes made to the web-service, the beta version was closed to the testers and the final version was made available to BBVA clients on the 15th of December 2008. Since then, Tucuentas has increased significantly the time spent by clients using the BBVA online banking system. In addition the number of BBVA clients using the service increased significantly, surpassing the number 300.000 users in June 2009.

5.2.1 Performance

The performance of the tucuentas project was assessed both by means of internal qualitative and quantitative performance indicators. To start with, the comments made by the project leader of tucuentas indicated that the performance of the service after its market launch was very positive. According to these statements, customer satisfaction was high and service utilization and the number of clients using the service increased significantly already after very short time. *“The truth is that the clients are very satisfied, we won many new clients in very short time, which means that the people are demanding it. The same way, we are managing 300.000 clients in only six months.”* (Project leader, 161:162)

In addition to these statements regarding the market performance of Tu Cuentas, also the internal project performance regarding the time to market was analyzed. Here, statements about milestones of the project and project duration indicate that the project accomplished the priority defined time to market milestones. *“We started with the project in January 2008, and also it was clear to us, that the product needed to be finished, that the product needed to be launched to the clients in the year 2008 also., we could not go to 2009. Therefore we put all the power into bringing... Christmas is the time when the people feel more need of financial planning, therefore from there we included everything in our plans in order to be ready then.”* (Project leader, 142:143) This milestone was, according to the data, accomplished successfully. *“The project started January 2008 and terminated December 2008.”* (Project Leader, 067:069) This internal statement was supported also by the official analysis of Forrester Research: *“BBVA’s Tu Cuentas online personal finance management service was launched in late 2008.”* (Alexander Hesse, Forrester Research, Case Study: BBVA’s Tú Cuentas Shows What Next-Generation Online Banking Will Look Like”, p. 2)

Hence, all in all, the Tucuentas project accomplished both internal time to market milestones, as well as market performance criteria. The latter especially becomes evident by looking at reports published by external research companies which indicated similar levels of success. Forrester Research published a case study on the tucuentas service and provided data on the different performance dimensions of the service.

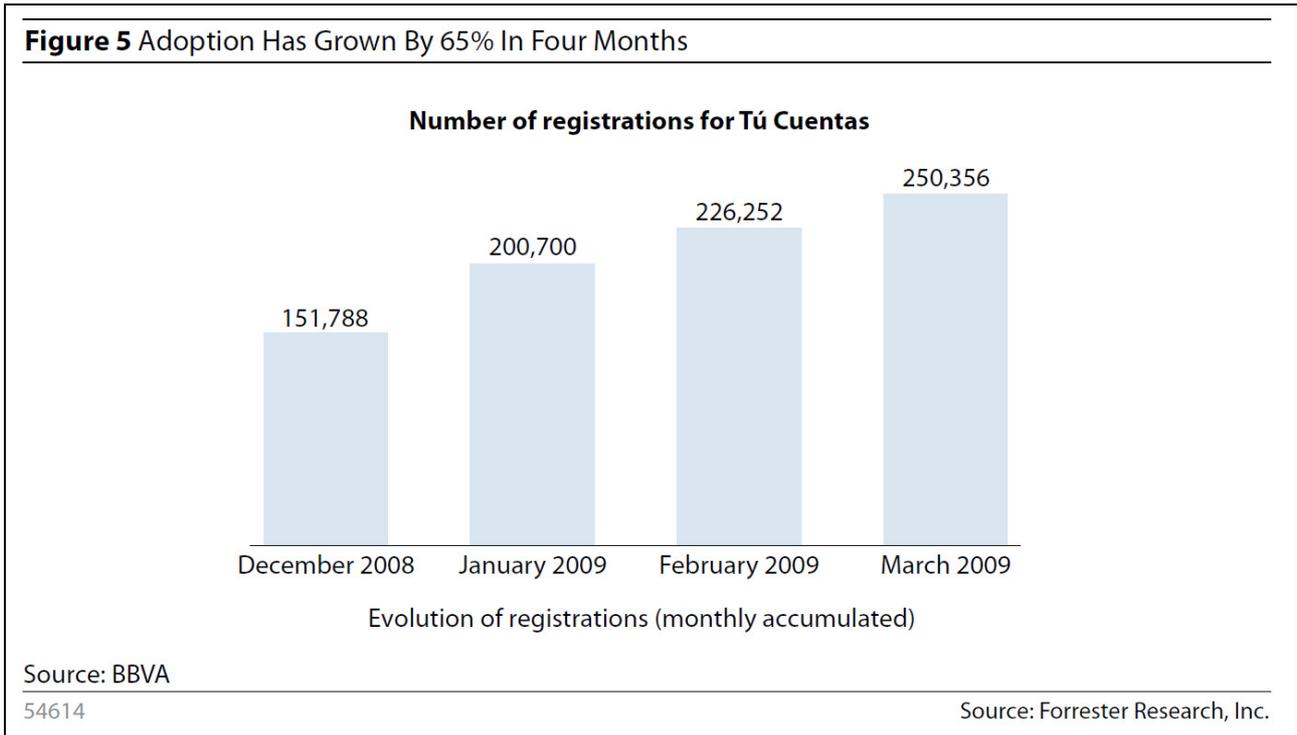


Exhibit 37: Performance Tucuentas: Number of registrations (Forrester Research)

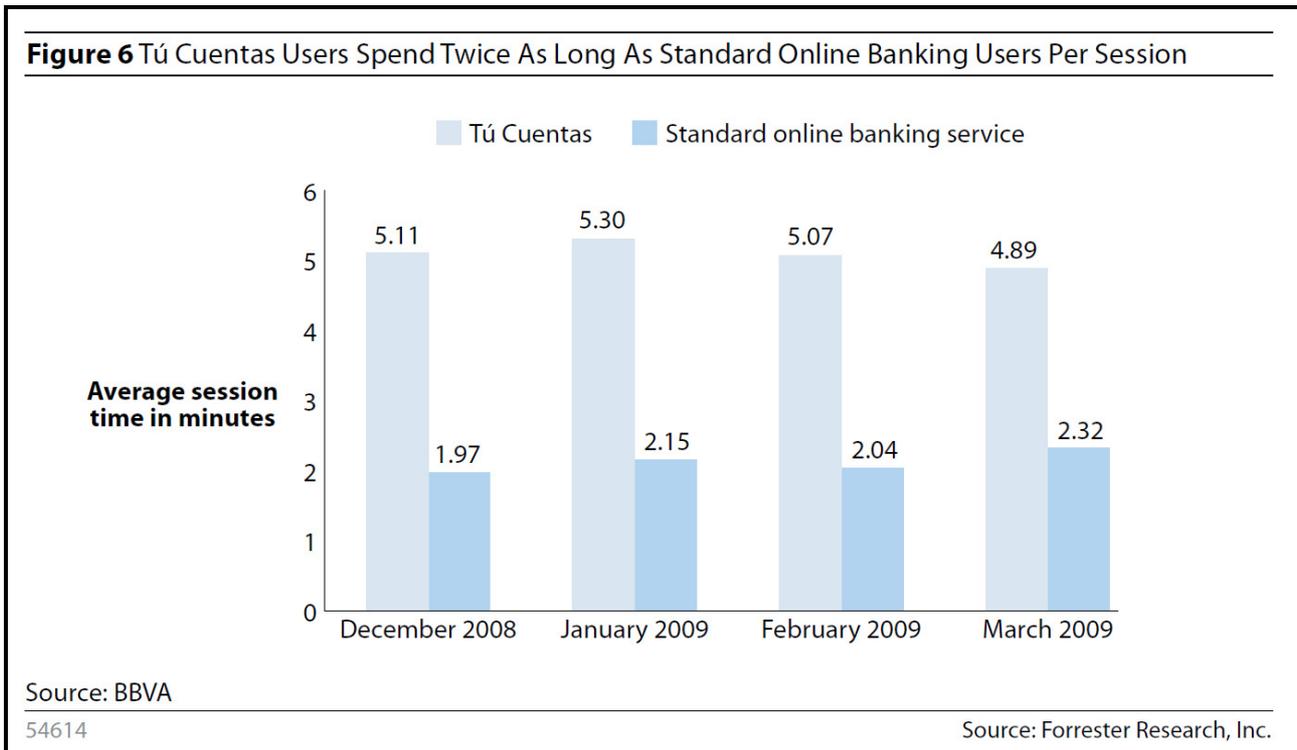


Exhibit 38: Performance Tucuentas: Usage compared to standard online banking (Forrester Research)

As can be extracted from these exhibits, tucuentas attracted a continuously increasing number of users within the first months of usage. In fact number of users increased from December 2008 to

March 2009 by more than 60%. In addition, not only the number of registered users increased significantly, also the duration of usage of the BBVA online banking service increased significantly. The average time users spent in their BBVA online banking application more than doubled in the observed time periods of December, January, February, and March. While in the beginning of the service customers may have needed more time to understand and operate the novel and unfamiliar features of tucuentas, this has been argued by Forrester as being a rather unlikely reason for the doubled usage time in later month, where the very same customers had used tucuentas for several months already. *“While users of the regular online banking service BBVA.net spend about 2 minutes per session on average, Tu Cuentas users spend about five minutes, suggesting that they are getting value from the service. The average time users spend in Tu Cuentas has steadily fallen as users have become familiar with the functionality. Nevertheless Tu Cuentas users continue to spend twice as long per session as users of the standard online banking service.”* (Alexander Hesse, Forrester Research, Case Study: BBVA’s Tú Cuentas Shows What Next-Generation Online Banking Will Look Like”, p. 6)

All in all, both internal statements as well as externally sourced information about the performance of Tu Cuentas support the notion, that the service was highly successful both regarding the accomplishment of time to market measures and the market performance in terms of number of users and value created for the customers. The following exhibit summarizes this evaluation.

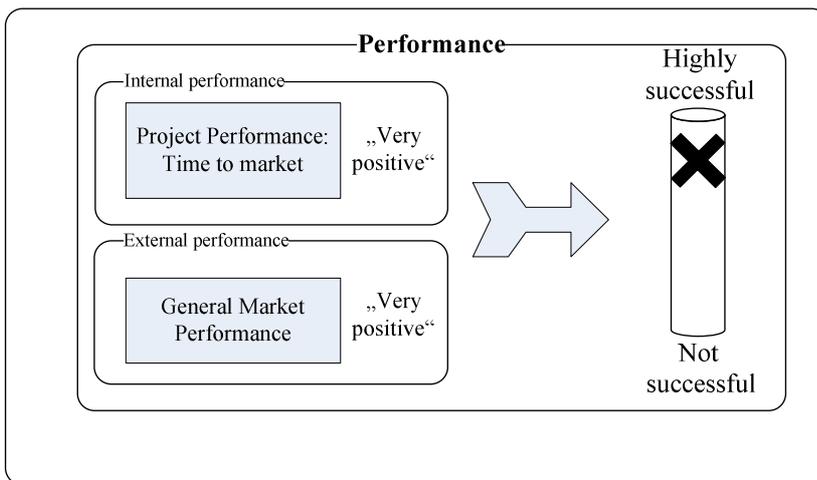


Exhibit 39: Performance TuCuentas

5.2.2 Degree of Newness

According to the model of Gallouj & Weinstein (1997), in the following the degree of newness will be evaluated based on the different service dimensions.

To start with the technical service characteristics, many novel technical characteristics were introduced which prior to Tucuentas did not exist within the bank. As had been reported in earlier descriptions of the absorption process, BBVA was not capable of developing the technical features of Tucuentas on its own. In fact as the project manager of Tucuentas mentioned, only very few organizations were actually able to provide the needed expertise for the envisaged service development. *“Strands has knowledge of recommendation [logics] and social media which we consider to exist only in very view firms. And exactly because of this we were interested that they could freely develop their projects and we could benefit from their ideas which they created. Hence from there we thought that Strands is very beneficial exactly because of their characteristic idiosyncrasy. They provide a differentiated value in contrast to other companies...”* (Head of Tucuentas project, 206:206). Hence, the technical expertise to develop the new service did not exist inside the bank prior to the project. Only through acquiring a partial stake in Strands.com, BBVA became capable of developing the new service. Yet, as was mentioned in the above already, different departments inside the bank supported the project by taking over specific development tasks. Within the commercial intelligence department, support was provided in the mathematical modeling of the recommendation software. While the experts inside this department also held expertise in such modeling, the specific expertise for developing the exact mathematical model for Tucuentas was not available. Even experts within this department needed to update their knowledge base in order to support the project. *“In Tucuentas, I do not know whether they have told you, the application for all parts related to financial and non-financial recommendations: All these are mathematical topics from which they take advantage and besides there are expertise areas in which this person [a mathematician] is highly specialized in his topic, but he had to complement it with other [expertise] areas.”* (Manager, consumer insight, 186:186)

Hence, considering the need of BBVA to acquire an external firm in order to become capable of developing this new service, as well as the need of internal experts to update their knowledge for the Tucuentas project, the technical characteristics of the Tucuentas service depart and considerably from the existing technical competences of BBVA.

Regarding the provider competence dimension, similarly to the Online Business service of BankPro, this dimension is not applicable to the Tucuentas Services. The provider competence dimension comprises those competences which a single person owns in order to be able to competently serve the service to a client. As in the tucuentas service all activities were pursued directly online, no single persons are involved in the day-to-day service delivery of Tucuentas. Hence, this dimension is not relevant to the assessment of the degree of newness of tucuentas.

Finally, in the customer competences dimensions many novel elements were introduced compared to existing services of BBVA. Within the customer competences those changes are assessed which impact on the customer-provider interface and which affect the customer co-production within the service delivery. Data suggests that the customer co-production of tucuentas improved significantly when compared to prior online banking services. Within tucuentas, the customer was capable of freely organizing the web-presence of his/her banking interface. This comprised but was not limited to the choice of peer groups with which the client can compare his/her expenses. In addition, the client could choose product and service types which he is interested in, and which should be recommended to him, based on his spending behavior. Finally, the client had the opportunity to connect to this online service his / her additional bank-accounts from other financial institutions. Hence, the client gained more freedom in his management of his financial activities. These novel design options of the clients' bank-interface demanded a significantly increased number of decisions to be taken by the client, as the client had to design his interface according to his preferences. This, in consequence, increased the client-co-production, as with the tucuentas service, the decision of what kind of information would be shown to the client moved from the bank to the individual client.

Hence, the client-co-production increased significantly and hence the changes within the customer-competence dimensions of the tucuentas project are regarded as high. All in all, due to the large amount of novel elements within the customer competences and technical characteristics dimensions of the tucuentas service, the overall assessment of the degree of newness is "radically new".

This assessment is also supported when looking at how tucuentas was evaluated by external experts. Tucuentas was evaluated by Forrester Research as a "test bed for next generation online financial management" which supports the here performed evaluation of the degree of newness of Tucuentas as "radically new". *"Many banks worldwide have developed functionality like site customization,*

account aggregation, online personal finance management, peer comparisons, and personalized product offers. But BBVA is the only bank we have seen to be bold enough to combine all of them in a single online service. eBusiness and channel strategy executives at other banks should view Tú Cuentas as a fascinating case that will help them to shape their vision of next-generation online financial services. They should also keep track of the success of BBVA Tú Cuentas as a test bed for many of the elements of next-generation online financial services” (Alexander Hesse, Forrester Research, Case Study: BBVA’s Tú Cuentas Shows What Next-Generation Online Banking Will Look Like”, p.9) Forrester Research is a leading business and technology research company, with more than 2600 client companies (2008) and approximately 240mio USD in total revenues. Forrester is listed at the NASDAQ stock market. Their final evaluation of Tucuentas has been published in June 2009.

In addition to the evaluation of Forrester Research, also “Actualidad Economía” awarded the Tucuentas service as “one of the 100 best ideas of the year” in their 2009 evaluation of innovative products and services.

Hence, by taking both the internal and external evaluation of the newness of the Tucuentas service into consideration, an evaluation of this service as being “radically new” is considered here as most appropriate, as summarized in the following exhibit.

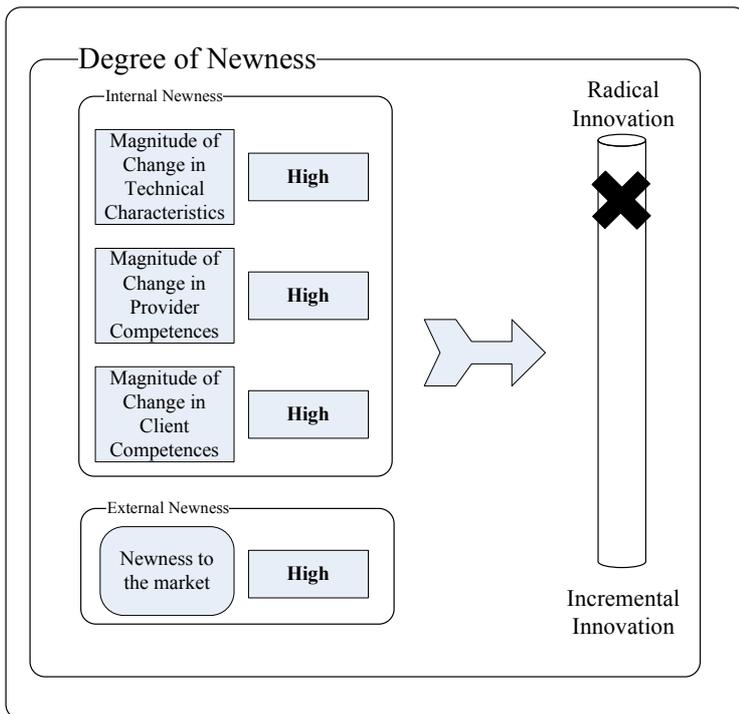


Exhibit 40: Degree of Newness TuCuentas

5.2.3 The Absorption Process

In the following, the single absorption activities are being reviewed and are grouped into absorption phases, based on the in the literature identified conceptual process model by Todorova & Durisin (2007).

5.2.3.1 Recognizing

The recognition of the value of novel external knowledge in the TuCuentas case was rooted in the general observation activities of BBVA. Within the Tucuentas project, external searching was active in different areas, both related to market and technology knowledge. More precisely, technology oriented departments engaged in thorough benchmarking activities, in order to reveal the state of the art of current online banking and online financial analyzing tools. *“In the beginning we did a very broad benchmarking study... before starting with the project, this was in November 2007, hence there what was looked at were all applications which existed in the market in terms of personal finance managers. We collected all characteristics and looked which could be the advantages...”* (Project leader, 114:114)

In addition to the technological scanning, also the market was constantly scanned through customer studies by the consumer insight department. In addition to these more general activities, more focused search was performed with regard to the identification of a suitable partner from which more concrete information for realizing the personal finance management solutions could be sourced. Boundaries of the search were clearly marked through the priority defined main characteristics of the new service. *“In this sense within the objectives of the project, Tucuentas only is part of these, therefore for this a company was searched which could develop in a certain way a software which could be aligned with the initiatives we wanted.”* (Project leader, 10:11)

Yet, though the concrete search for a technology partner was being performed only at the beginning of the project, the scanning for novel features and ideas for inclusion in the novel service was being maintained over large periods of the whole development projects, overlapping considerably with already ongoing development phases. *“During these 10 months we were constantly monitoring the applications of the competitors”* (Project leader, 126:127)

5.2.3.2 Acquisition

After the state of the art of current technology and approaches towards personal finance analysis had been identified, the priority identified technology partner “Strands.com” was brought into the project as part of a larger learning relationship between BBVA and Strands.

Strands.com was a former start-up company, founded in 2003 both in Spain and the USA. Strands’ core competencies lay in the development of analysis tools for customer analysis, which had been firstly applied within a music-suggestion tool for MP3-downloads. On the basis of former purchases, and the analysis of the music bought, Strands’ software was capable of offering the customer individual suggestion of additional songs, which were similar to the ones already purchased. Based upon such and other solutions, Strands employed in 2009 more than 100 employees generating more than USD 12 million of sales.

The bank purchased 24% of Strands in order to benefit from the unique knowledge Strands was offering. BBVA could have contracted Strands only for the period of actually developing the new application, yet this would have limited both the scope and long-term access to the expertise sets residing at Strands. Indeed, the investment’s primary aim was to benefit from Strands’ creative ideas and novel solutions also in the longer run. Due to this, and in order to even increase possible

acquisition of information in the future, BBVA granted Strands the right to exploit the development which was done together with BBVA also for non-BBVA related business solutions. As a result, Strands introduced similar services, with the label “Moneystrands.com”. Management at BBVA strongly believed in the long term learning benefits of this collaboration and therefore regards its investments in Strands as highly strategic in nature. *“Strands is free to develop those products and those initiatives which they want. Strands does specific projects and on the other hand they develop their own ideas in a free way and if something is of interest to us, we can take it for free.”* (Project Leader, 034:034)

Besides acquiring technical information from strands.com, the project leader also initiated a constant acquisition of information about competitor’s solutions regarding personal online finance managers. *“During these 10 months we were constantly monitoring the applications of the competitors and in the moment in which something existed which we thought of as being interesting, we incorporated it in our road map* (Project leader, 126:127)

BBVA also engaged in acquiring more in-depth information about customer’s perceptions of TuCuentas’ basic service characteristics. Inside BBVA, this first feedback round with customers was called “proof of concept” and was conducted in the last months of 2007. Based upon the positive feedback the customers issued concerning the basic ideas of Tucuentas, BBVA decided to start developing it at the beginning of 2008. *“...we did what is called a proof of concept, a market research, where we did focus groups with selected persons presenting this idea, in order to know if these persons would agree or would not agree with [the fact] that a bank launches this project. There we received a very positive feedback from all over the world and it was in that moment that we decided to launch that project.”* (Project leader, 51:51)

In addition to this initial acquisition of customer feedback information about the basic service characteristics, subsequently, the project team started to obtain additional feedback once usable versions of the new service were available. This second customer involvement was initiated after the beta-version of Tucuentas was approved by the head of innovation as being appropriate. *“From there in that sense what we did was that the application was opened to specific journalists and five hundred beta-testers from the bank / clients. These could operate with the application and could provide us with feedback. ... And those things which they told , at the time when the people provided us with feedback, we did changes and corrections in the application on the basis of that information which we got.* (Project leader, 074:074)

In addition to the initial and subsequent customer involvement during the actual development of tucuentas, after the introduction of Tucuentas, the project team remained closely connected to the customer's experience of the new service. In this respect multiple communication channels were opened in order to suit the customer's preferences most. Among others, Twitter, Facebook and other social media channels were institutionalized in order to acquire on-time feedback about possible errors, or improvement opportunities from the actual service-users. *"And on the other side what we were also searching for were communication channels with the clients, there existed a strategy, very much [Web] 2.0. We opened strategies in Facebook, we opened strategies in Twitter, we also opened a blog and apart from this additionally there exist several contact channels with the bank which are referred to hotlines and email so that the people can send a series of inquiries and afterwards we get in contact with them in order to resolve their questions. (Project Leader, 164:164)*

5.2.3.3 Transformation

Transformation of internal knowledge base

For the TuCuentas project, the internal knowledge structures were transformed. Here especially the technical knowledge base had to be transformed in order to become capable of applying external information necessary for Tucuentas. Internal experts of the bank needed to update their basic expertise areas in order to become capable of understanding and applying novel information about the underlying algorithms of the tucuentas service. *"In Tucuentas, I do not know whether they have told you, the application for all parts related to financial and non-financial recommendations: All these are mathematical topics from which they take advantage and besides there are expertise areas in which this person [a mathematician] is highly specialized in his topic, but he had to complement it [his expertise] with other areas as these were not well know before."* (Manager, consumer insight, 168:168)

Besides this transformation directly related to the tucuentas project, BBVA had performed a change of both the market and technology knowledge bases few years before the here reported project. This was due to the awareness of BBVA that innovating in novel domains outside the bank's core business would necessitate an in-depth understanding of novel technological domains, as well as being capable of understanding novel markets and different types of potential customers.

Firstly, due to the earlier decision of the bank, to focus on those service innovations which would involve high degrees of novel web-based information technology, specified departments were created within the Centre for Innovation which monitor and try to understand the latest developments in web- and software-technology. This change of the knowledge structures prior to the tucuentas project, allowed the bank to understand and use information for developing a web-service such as tucuentas. *“This area is a business unit called “nuevos negocios digitales”. This is a quite, although this area has been created - has been working for the past five years. This area started two year ago. What basically they did is to develop some of these new ideas and some digital business, one here, one there [and] take [it] then to a region where they can manage and coordinate it. (Marketing Manager, Centre for Innovation, 187:188) “And the technology needs to have a different focus; we have an area of innovation technology and there exists an area which is the “observatory”. The observatory what they do is they have the title “radar” and what they do is to ascertain continuously what technology could have a future, have some type of impact in our business. They identify it, and from there they develop new solutions but grounded in new technologies ...technology is not only a mere supporter, it has converted also in a fundamental driver for innovation” (Head of Centre for Innovation, 031:033)*

Secondly, in order to gain in-depth understanding of customer needs, also in non-financial areas, BBVA transformed its market related knowledge base by creating a new department within the bank which dedicated its work, among others, to break out of focus of the bank regarding its existing clients and to also start understanding the behavior of consumers at large, which have needs also related to non-financial services. BBVA achieved this transformation by directly acquiring a whole team of market research experts from a globally leading market research consultancy. The bank incorporated these experts in the new department of consumer insight. In consequence, this expert department served as the main partner for the development of the tucuentas service in order to identify, acquire, translate and apply market related knowledge. As the project leader of tucuentas stated *“they [the consumer insight department] were made responsible for leading the part of market research.” (Project leader, 054:054)*

Hence, all in all, BBVA changed its knowledge structure both during and prior to the project in order to be more receptive to web-technology and non-financial customer behavior.

Transformation of external information

After both technical and market knowledge had been acquired, it was not readily possible to integrate the acquired information into the service development activities, but different expert departments needed to take over the task to transform the acquired information into general business knowledge understandable to all project members.

As regards technical knowledge transformation, project management of Tucuentas approached a specialized department called “Business Partners” which was responsible for mediating between business needs and technological realization. In consequence, the Business Partners department started to assess in meetings with the project management of Tucuentas as to how the service concept could be realized within the technological infrastructure of BBVA. *“Our department is basically related with helping the team of innovation to help manage their projects from the technical perspective. So to speak, Eulalio [Head of Centre for Innovation] and his team request from us what they want to have, we evaluate and transform these petitions sometimes... and we act like an interface between all technical areas in order to see the viability within the bank’s context and to analyze all those specific problems which are comprised in an innovation project.”* (Head of Business Partner Department, 004:005) As the project manager of Tucuentas put it: *“Well, they [Business Partner Department] really what they do is to analyze technically everything, and from there what they do is to summarize so that all business people are capable of understanding... If someone afterwards wants to have something more concrete, they can ask for more detailed information, much more technical.”* (Project leader, TuCuentas 132:132). Yet this boundary spanning role of the business partner department was particularly directed towards helping the innovation teams in understanding external information. *“Once you have identified this expert, or this external firm, you explain the project manager [of the innovation project] what they do and how they are doing it, because the project manager is no expert in technology and does not understand very well what you [Business Partner employee] can understand easily.”* (Head of Business Partner Department, 087:087)

Yet, not always the externally sourced technical knowledge fitted the internal expectations and hence sometimes these were not applied directly but needed considerable transformation in order to fit the organization. For example, after internal experts discovered a mismatch between demanded and received solution of Strands, they started to adapt the received solution. This was necessary, as BBVA wanted to exploit as much as possible the available internal information about the bank’s

customers. Strands, however built some elements of tucuentas with the perception that no prior information about customer behavior would exist, and hence programming of product recommendation logics was designed differently especially with regard to the mathematical models applied. Hence, not all information acquired were finally applied in a direct way. *“The algorithms which they used and chosen, I believe are not adequate for the financial sector. The focus which they gave [to it] was different, in retail business it could work, our [business] is very different and I believe...they based [their algorithms] in regression trees which learn with time. But this is a situation where you do not know anything about the client what they buy...well these models with the time learn. In the financial sector we start from an enormous amount of client data. ...This they did not do correctly. Well, notwithstanding the significant errors we started the change.”* (Head of Commercial Intelligence department, 012:020)

As regards market knowledge transfer, here, the consumer insight department, consisting of market research experts with varying backgrounds ranging from mathematics to anthropologists, took the lead in all customer focused activities. These experts designed the way the customers were approached and the way they were questioned. After that the department translated the specific results of the customer feedback in understandable business terms for the project management and other members of the project. *Sometimes, in order to make the correct interpretation from it [market research data], you have to know the context, the methodology and sometimes, that happens also a lot, the [market research] supplier provides data or facts, and in these cases we have to do an extra work. ... There exists an internal document where the key-findings are extracted, so that it becomes clear, because normally the presentations [of the data supplier] are a hundred slides. Firstly, this is not operable for a manager, because he has no time to read all that....and I believe some things are not easy to interpret and through discussion [with the data supplier] we can read all the data properly. I think this is very important from this perspective and then the next step is really a summary, to make from that an official internal summary. Where our point of view is included, because, of course, at the end we have more information than the supplier, we are experts in our market, the supplier has a partial knowledge hereof.”* (Manager Consumer Insight, 130:130)

5.2.3.4 Application

The acquired and transformed information subsequently became applied in the different development activities subsumed in the tucuentas project. At the beginning of the project, market

related knowledge, which had been gathered from potential customers, was used to buttress the priority envisaged structure of the new service. Later on, information from subsequent customer inquiries was applied into further refining already finished elements of the tucuentas service. *“...we did what is called a proof of concept, a market research, where we did focus groups with selected persons presenting this idea, in order to know if these persons would agree or would not agree with [the fact] that a bank launches this project. There we received a very positive feedback from all over the world and it was in that moment that we decided to launch that project.”* (Project leader, 51:51) *“From there in that sense what we did was that the application was opened to specific journalists and five hundred beta-testers... These could work with the application and could provide us with feedback. And ... at the time when the people provided us with feedback, we did changes and corrections in the application on the basis of that information which we got.* (Project leader, 072:074)

Similarly, also the application of the acquired technical information was observed to having taken place during several periods of the development project. Here, results from a benchmarking study done by the business partner department helped to design the optimal mix of service characteristics during the development of the service concept. Later, the collaboration with Strands.com supported the actual development of the new service. In addition through ongoing market scanning activities of the business partner department, the service concept was constantly updated if new features or technological solutions could be incorporated. *“In the beginning we did a very broad benchmarking study... before starting with the project, this was in November 2007. Hence there what was looked at were all applications which existed in the market in terms of personal finance managers. We collected all characteristics and looked which could be the advantages...During these 10 months we were constantly monitoring the applications of the competitors and in the moment in which something existed which we thought of as being interesting, we incorporated it in our new road map”* (Project leader, 114:127)

The above reported application activities of external information were continued also after the actual development project was finished. Both market and technical knowledge were further identified, acquired, transformed and applied to the tucuentas services. For example, as regards market knowledge, the project leader initiated several communication channels for actual customers of the new service in order to allow them to inform BBVA about possible drawbacks and opportunities for improvements. These inputs then were applied to the further refinement of the service. *“And on the other side what we were also searching for was a series of communication*

channels with the clients, there existed a strategy very much 2.0, we opened strategies in Facebook, we opened strategies in Twitter, we also opened a blog and apart from this additionally there exist several contact channels with the bank which are referred to hotlines and email so that the people can send a series of inquiries and afterwards we get in contact with them in order to resolve their questions. (Project Leader, 164:164)

Yet, available external information was not always applied to a full extent to the service development, but was mixed with already existing, internal knowledge. For example, related to the development of cross-selling algorithms, a department outside the innovation center headed the improvement initiative. Experts within the department “Commercial Intelligence” developed mathematical models in order to identify the spending behaviors of clients. While they had received a technical solution from Strands.com, the department started to change these received algorithms based on the common practice inside BBVA, as the internal solution was regarded superior to the externally developed alternative. Hence, the improvement of the underlying logic of Tucuentas was based also on prior internal experience, *“Commercial intelligence are 25 people ... who are accustomed to develop statistical models ...we recognize the behavior in order to construct a motor of reconnections. ... The consultants [from Strands] see that we are not into the latest technology. ... But the latest technology does not comprise the ways of [programming] which we are developing... And the quality of our [programming] will make these connections much better and we do not see the necessity to leave [towards the latest technology], it is the adequate way to do it.”* (Head of Commercial Intelligence department, 090:091)

Thereby, the external knowledge which had been applied to the design and implementation of Tucuentas was going to be transferred again after first experiences with the service had been made. Once the service worked stable, it was going to be transferred to the operational administration and hence left the area of innovation in which it had been developed. This completed the application of the external knowledge as regards the development of the Tucuentas project. *“The function which the product has, the function which the innovation department has is to generate new products, once the product is finalized it will not comprise its administration, other departments are taking over.”* (Project Leader, TuCuentas, 175:176)

Finally, the service concept, and the in the concept embodied knowledge, was transferred to Strands.com by granting the startup company to exploit the new service by means of offering it in market niches in which BBVA was not intending to offer Tucuentas. In consequence, Strands.com

decided to create an own brand-name and website to offer the new service as an individual finance monitoring service, which would offer to customers the simultaneous monitoring of several bank-accounts at once. This online service was offered to American customers, yet international customers from other countries could use this service, too. BBVA's rationale behind this parallel application of the service concept was grounded in the expectation that such alternative use of the same concept would allow for additional feedback and learning potential. Such added insight was planned to be used for the future improvement and continuous improvement of BBVA's Tucentas service. The following picture shows the start-page of the online service offered by Strands.com.



Exhibit 41: Alternative Application of Tucentas as Moneystrands from Strands.com

5.2.4 Dynamics of the Absorption Process

Within the tucentas project, both the absorption of the technical knowledge as well as the absorption of the market knowledge were observed to having taken place during the whole project.

As regards market knowledge, several times new information about customers or technology was sourced again. In terms of market knowledge novel information was sourced in order to obtain timely feedback. As was presented already in the section "acquisition", initial feedback on an early version of the service concept was acquired, translated, and applied into the service design. Later

the whole absorption process was performed again in order to learn more about the reactions of customers to the test version as well as the final version of Tucuentas. Besides these activities, a steady involvement of the consumer research department in the project was reported which supported the notion of a constant role of market knowledge in the project. *“Well Tucuentas really is our project in innovation. I would say there does not exist one person which did not work for tucuentas. And these projects live, they are living continuously, hence our intervention was during all stages of the project. From the design, meaning the study of the consumer needs and the identification of those systems to monitor their expenses, so in order to obtain all this kind of information, research was conducted.”* (Manager, consumer insight department)

New technical knowledge was sourced via the internal expert department “Business Partners” for example via a benchmarking study of existing technology suitable for the realization of tucuentas. Later on, through the collaboration with Strands, novel information was sourced on an ongoing basis. Overall, the ACAP process iterated several times in order to acquire technical and market-related knowledge. In general, the project leader reported a constant updating process of the technical features of the service concept. *“Like a project in constant evolution... we could identify new characteristics at the beginning or at the end of the project.”* (Project Leader, 135:135) *“Although we [project managers within the centre for innovation] are business people, meaning that we know about the strategy etc, we are persons who have a sufficient background in technology, in order to understand the necessities. ... We maintain daily communication with these teams [Business partners, other technical departments]. Every morning we had a conference call with them where we analyzed new aspects, and also problems and we looked also at the objectives for that day.”* (Project Leader, 130:131) In fact, this daily updating process was also visible in the project management approach which was chosen to manage the tucuentas development. The project leader decided prior to the project, to follow the SCRUM project management procedure. This approach to manage (IT) projects comprises a continuous communication between the key-actors of the project. Hence, the statements of the project leader concerning the steady updating of the technological features was supported also by the logic, how the official project management was conducted.

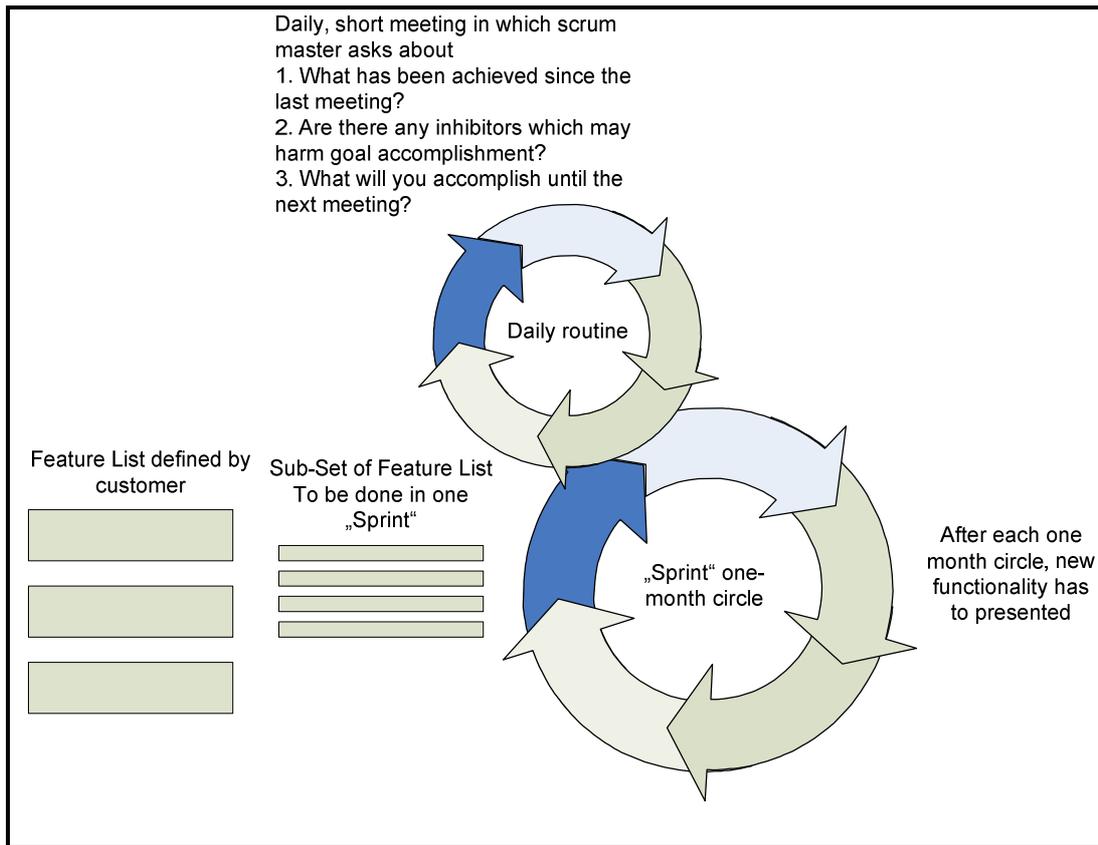


Exhibit 42: SCRUM Development Process (Takeuchi & Nonaka, 1986)

Hence, both market and technical knowledge was recognized, acquired, transformed and applied several times during the Tucuentas service development. While market knowledge was absorbed especially during the beginning and end of the development, as well as shortly after the market launch, technical knowledge was absorbed even more often. In fact data suggests that the technical service development was constantly updated by new features which were identified via external knowledge sources and the constant monitoring of technical trends. Further, due to the fact that the Tucuentas service was not only used by BBVA, but in addition was marketed independently by Strands.com, additional learning loops were initialized. The autonomous market launch by Strands.com allowed the constant inflow of feedback concerning the viability of the embedded technical features and the acceptance and usage of the new service by different target groups.

In addition to the iteration of both market and technical knowledge absorption, single stages of the absorption process overlapped. As regards market knowledge absorption, the acquisition and application of such knowledge overlapped, as novel market knowledge was acquired and transformed during the application of market knowledge which had been collected during earlier project phases. For example, during the whole project, a steady inflow of competitor's approaches

towards personal finance managers were acquired and applied to the tucuentas project. Due to this continuous updating of the knowledge base, the application of priority acquired information overlapped continuously with the acquisition of novel competitor information. In addition, due to the fact that for the tucuentas project several times, customer feedback was sourced externally, new market knowledge was available before the application of customer knowledge from earlier feedback initiatives was completely applied to the service development.

Similar parallelism of single absorption stages was also observed to having taken place related to technical knowledge absorption. Here, knowledge of novel technical features were acquired throughout the whole project, while the application of priority acquired technical knowledge was still ongoing. For example, while the commercial intelligence department was still occupied with the transformation and application of Strands' recommendation algorithms, early users of the already working version of tucuentas did already submit their experiences and recommendation about technical features of the new version. Hence, while priority acquired external technical knowledge needed still to be applied to the service development, novel information was already sourced in parallel. All in all, this example illuminates that different stages of the absorption process co-existed and had to be performed simultaneously.

Hence, due to several iterations of the absorption of market and technical knowledge, the absorption phases overlapped during the project and it became necessary to apply priority acquired knowledge in parallel to the repeated acquisition of new knowledge. This dynamic pursuit of the absorption process was observed both in relation with market and technical knowledge absorption.

In addition to the overlap and iteration of the process phases for market and technical absorption, also an interconnectedness of these two processes was observed. In more detail, members of the consumer insight department had to update their expertise areas with the insights gained from technical absorption activities in order to become capable of providing the project with the adequate market information: *"In Tucuentas, I do not know whether they have told you, the application for all parts related to financial and non-financial recommendations: All these are mathematical topics from which they take advantage and besides there are expertise areas in which this person [a mathematician] is highly specialized in his topic, but he had to complement it [his expertise] with other areas as these were not well known before."* (Manager, consumer insight, 168:168) Also in more general terms, the technical insights gained during technical absorption were implemented in iterative market studies in which the customer behavior and their preferences in relation to novel

technological options became investigated. *“These are some examples I don’t know if they are really important, we have a very big study here from consumer insight which is an observatory.... We study trends, consumer trends basically trends in terms of financial behavior and also non financial in terms of relationship to the new technologies etc...”* (expert consumer insight, 063:064) Via this interconnectedness of market and technical information, more focused research was conducted which ultimately leading to higher degrees of relevance of the sourced information for the Tucuentas project.

5.2.5 ACAP and the Service Innovation Process

While at BBVA no written, formal development process was set in place in order to manage service development projects, several gphases were observed to having been instituionalized, as was reported already in an earlier section of this case report. The Tucuentas project started with a basic idea in mind as to what service to develop. Initially customer needs analyses were performed, together with technology scouting activities. These initial activities were necessary in order to build the foundation for the subsequent conceptualization. Based upon this, the realization of the infrastructure and service routines was conducted which led to the development of a prototype. After feedback on such draft versions of the new service had been gained and implemented, the launch of the new service was performed with accompanying marketing and promotional activities. Paralleling these different development phases, concurrent feedback and monitoring of the projects’ progress was performed by the senior management level of the innovation centre at BBVA. The following exhibit visualizes the observed process.

Innovation Process at BBVA

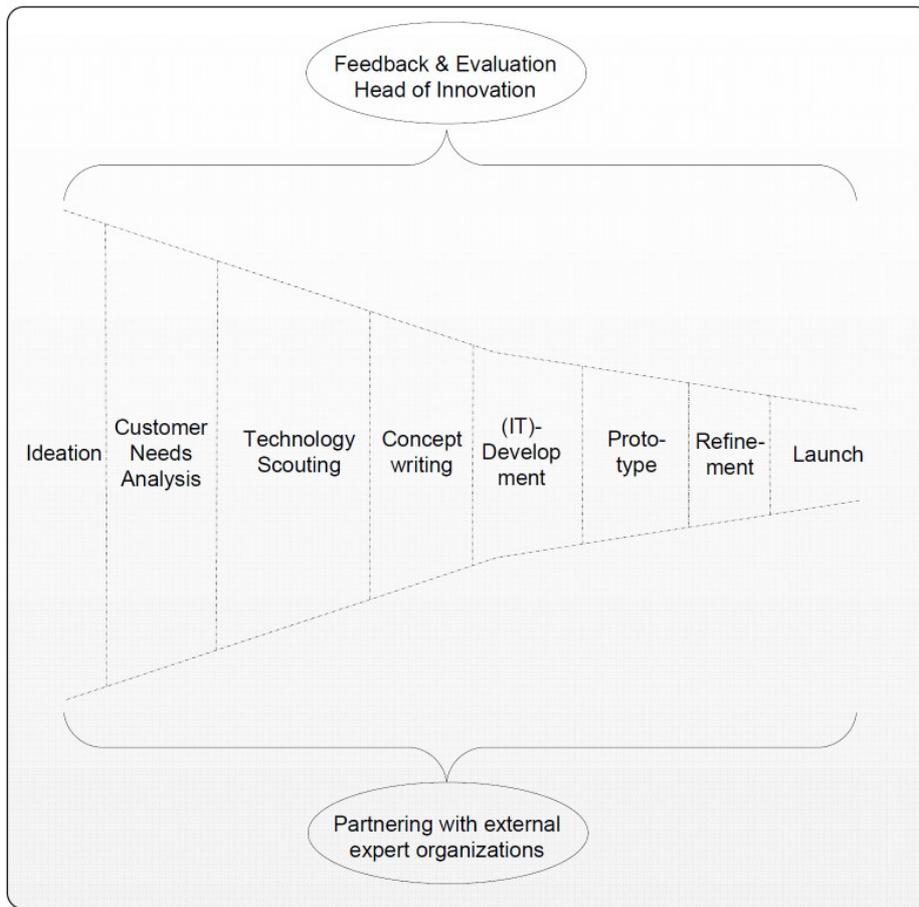


Exhibit 43: Innovation Process at BBVA (Tucuentas)

While this process suggests a linear nature of the development activities at BBVA, overall development was in fact rather dynamic. Not only in the beginning, but also in the midst of development, novel information from outside the firm was incorporated in the concept design. This led to the fact that the development process iterated several times.

In a similar fashion, the ACAP processes for market and technical information absorption paralleled the development process. The recognition of the value of external information primarily was observed in the initial idea generation phase of the development phase. Subsequently, during the customer inquiry and technology scouting phases, the main acquisition of external information was performed, accompanied by the transformation of the internal knowledge base in order to understand the external information. The acquired information was then, after internal experts fully understood the newly gained knowledge, transformed in order to apply it to the service

development. Yet, notwithstanding the already started prototyping of elements of the novel service, new insights gained from competitors or customers were still being incorporated in the development process also during later phases. This resulted in a dynamic development process which was paralleled by the ACAP process. This parallel, iterative pattern of the flow of both the ACAP and innovation processes is visualized in the following exhibit.

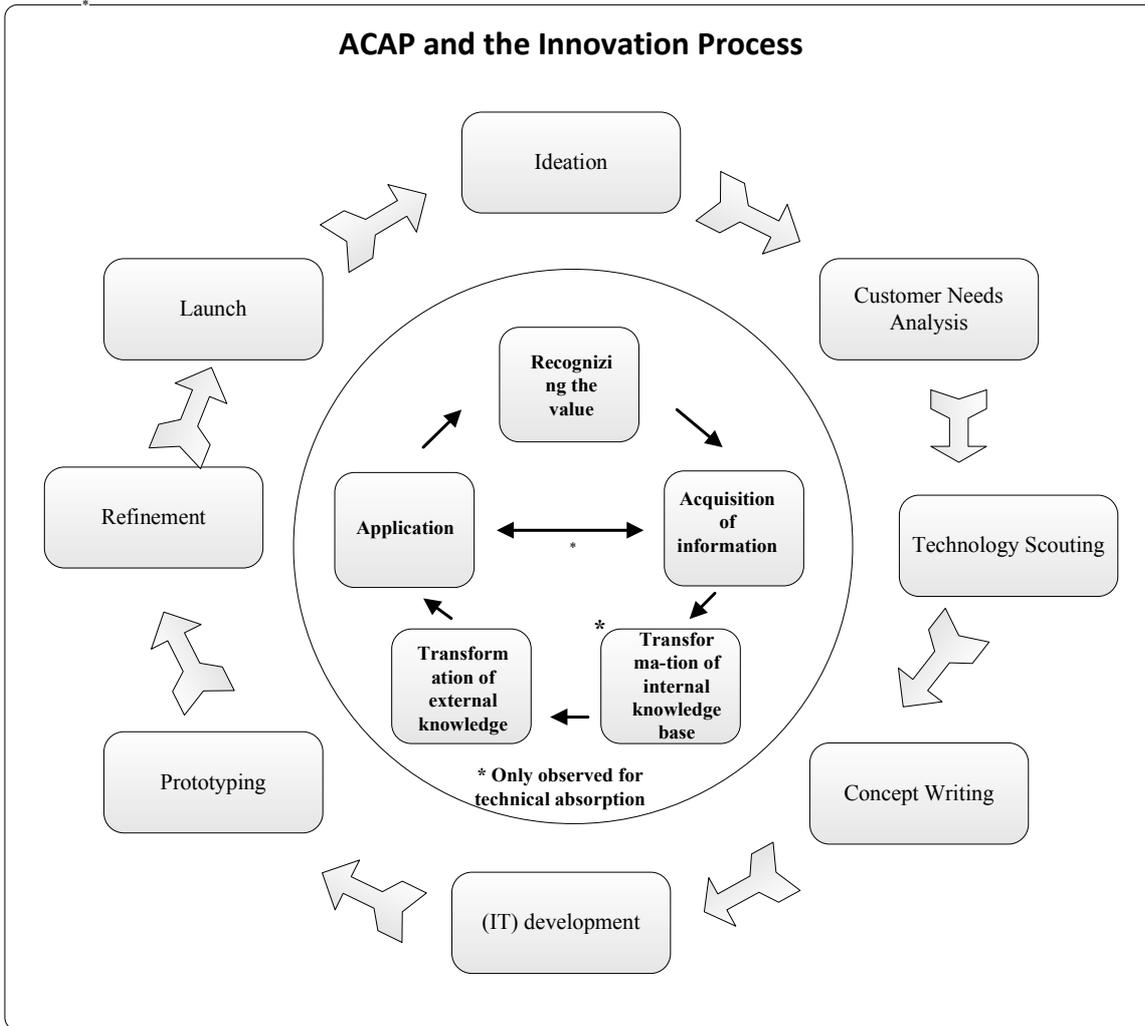


Exhibit 44: ACAP and the Innovation Process (TuCuentas)

5.3 Project II: eConta Premium

5.3.1 The Development Process of the “Econta Premium Service”

The idea of eConta, a personal online finance management service offering online accountancy services to SMEs (as shown in the following exhibit), was conceived during BBVA’s regular

attendance at national and international start-up company congresses. The potential of eConta was perceived due to BBVA's conviction that the general quality of accounting service was still poor in Spain, as SME were still used to handing in documentation about their income and expenditures every three months, shortly before the taxation office deadline. This resulted in the fact that SMEs had no - or only infrequent - transparency concerning their cost and income ratio, or at least had no means to analyze their financial situation over time on a detailed basis.

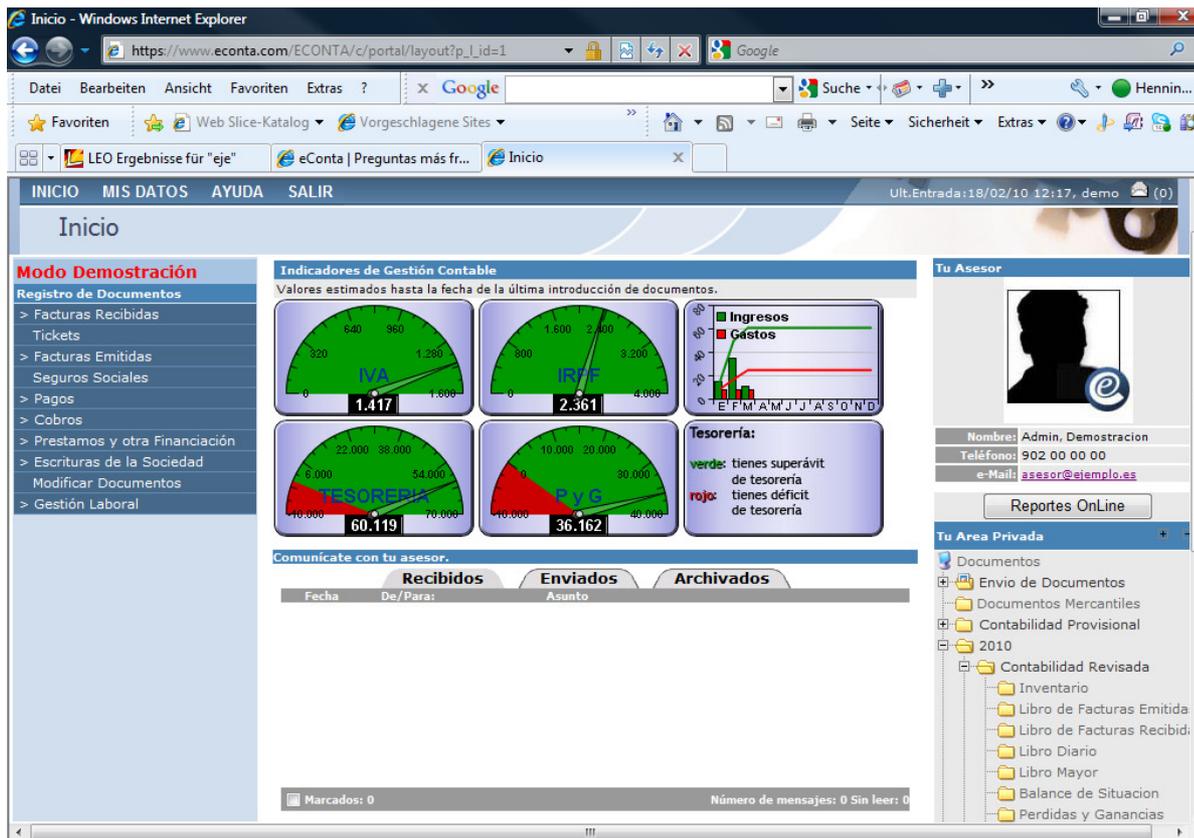


Exhibit 45: Online Application Econta (date of retrieval: 18.02.2010)

Fueled by BBVA's awareness that this service – which for decades had gone unchanged - was due for novel, innovative business solutions, a 70% stake in eConta was purchased in June 2007. A further reason was the potentially large target group and the fit and synergistic opportunities of accountancy services with other financial offerings of the bank. In particular senior management identified the potential of integrating the databases of eConta and the clients' potential online BBVA bank account information in order to automate considerable elements of the tax calculation. *“A nice example of our understanding of innovation [as being related to the concept of an “analogy”] is eConta. If for a freelancer or entrepreneur we are administrating his/her incomes and expenses in a normal savings account, we can have 70% to 80% of the needed accounting*

information. As a result, we can do analytical accounting, declaration of taxes and other services online. This is an analogy for us. An everyday service, the bank account, and a product or service such as accounting services, these we put together and generate a product and a service anew and with added value for the client.” (Head of Innovation, article)

From that date until February 2009, BBVA did not interfere in the management of the company, nor in the design and characteristics of the offered accounting service.

In February 2009, BBVA decided to become more actively involved in the business of eConta and defined a project leader for eConta, who would create a link to exchange ideas and practices between the start-up and BBVA. This decision was at least partially due to the desire on the part of BBVA to professionalize the internal procedures of the recently acquired firm. eConta, a former start-up business, still possessed the characteristics of a young, dynamic firm which would, however, have hampered efficient service delivery for a larger group of customers. The organizational structure of this start-up was of a highly organic type, also because of the limited customer base of about 500 accounts. In turn, executives at the bank wondered why the customer base was so limited and whether there would be additional opportunities for growth. *“But the processes, everything regarding the processes and the management approach continued to be little, it is little professionalized, and therefore one of the things which waited to be done at Econta was the transition from a company, from a start-up company based in friends and family, into a more professionalized small or medium company. ... Therefore because of this the bank decided to participate in the management. And we say that we are revising, reengineering a little bit the processes, in order to try to automate the processes, to reduce the process costs, to try to rethink the strategy of Econta, revisiting the product catalogue, the pricing of the products, revising the relations of Econta with its clients.”* (Project Leader, 244:248)

As a starting point for the intensified involvement of BBVA in eConta’s business operations an in-depth ethnographic customer inquiry was started in which basic expectations and underlying, implicit customer needs were investigated. Results of this study equipped Ricardo with important, urgent changes to be made to the basic eConta service.

In an initial step, the customer insight department, which conducted this in-depth inquiry, revealed that due to the fact that the service demanded from the user the input of its accounting information, only a minority of all SMEs were willing to perform their trimestral accounting activities with the

help of an online service. In fact, only very few SMEs were accustomed to entering critical financial information online by themselves. *“In February there was a study by the customer inside department and they saw that the service is very good and that the clients of Econta value it very well, but the market niche of clients to Econta is very small, because The profile of the general client is, that he is not used to enter his data in a platform...”* (Project Leader, 288:290)

Subsequently, the internal processes of eConta were revised and it was concluded that it would be beneficial to provide an extra service called “Econta Premium” which would simply collect the paper-based information relevant to accounting directly from the SME via a post service. This information could then be scanned and returned to the SME using the latest technology. After having identified an external partner for operationalizing the procedures for this new service, the internal procedures of Econta were adjusted in order to fit the novel service. Finally in July, the new service was launched in the market. *“Therefore here is what we do, here what we do is we send a messenger at the first days of each month to the clients home and we collect his documentations in his office. We have an agreement with Imbra which is one of the leading technology firms in Spain, in order that they make the recording of these data.”* (Project Leader, 296-299) *“Once we did the accountancy, ... , all the documents are going back in addition to his accounting.”* (Project leader, 314)

This launch of Econta Premium in the market, was, however made possible through a short-term contracting of a specialized digitalization company which would take care of the procedures necessary for delivering Premium Econta’s core value of collecting and scanning the clients paper-based accounting relevant documents. This contracting of a specialist, however was envisaged to become replaced in the medium term with the help of an in parallel developed BBVA service (i.e. www.VirtualDoc.es) which had similar competences in digitalizing documents. Hence, in the medium run the bank decided to take advantage of combining two services in order to create novel solutions for their SME’s clients.

Hence, overall, the eConta Premium development process also contained ideation, customer analysis, conceptualization, implementation, prototyping and launch activities and hence to a large extend followed the general innovation process at BBVA.

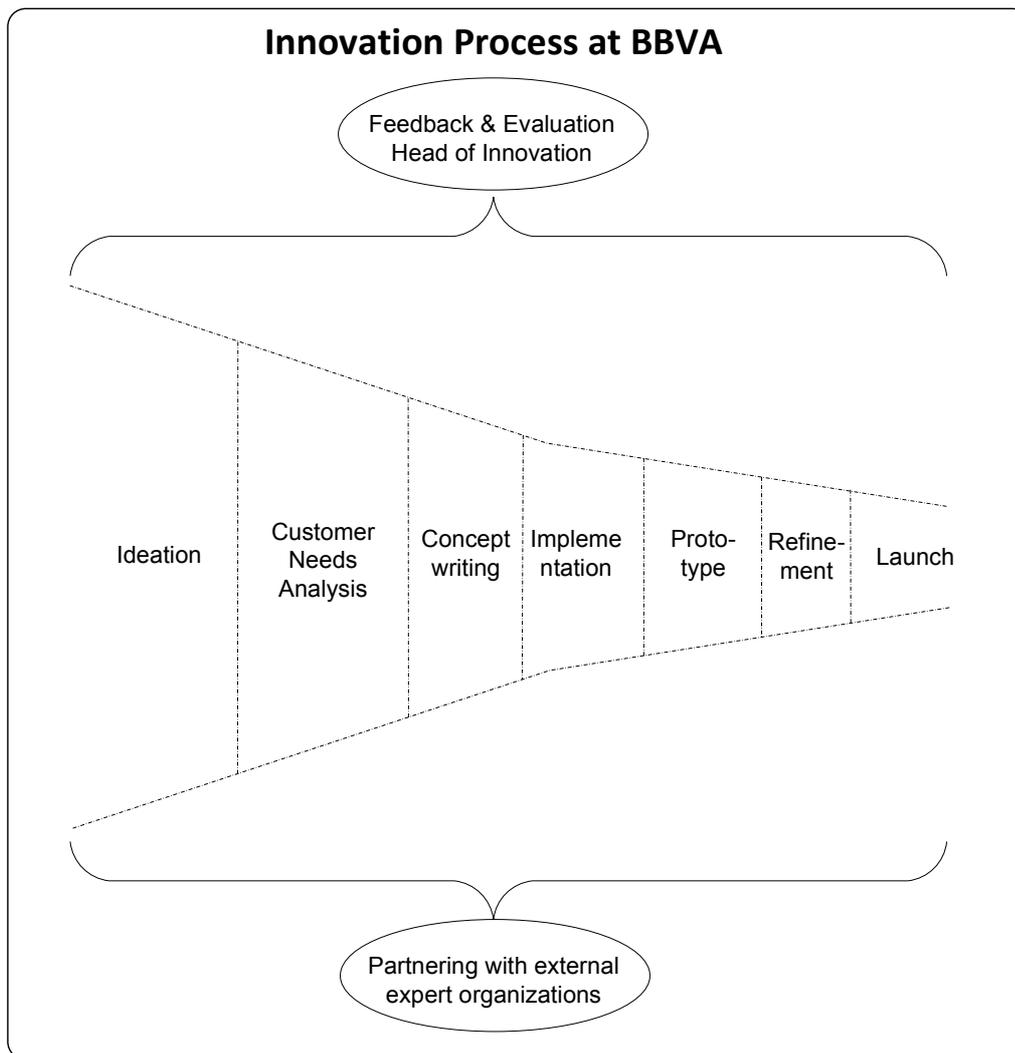


Exhibit 46: Innovation Process eConta at BBVA

5.3.1 Performance

As regards the performance assessment of the eConta premium service, only the assessment of the pure development work could be accomplished, as due to the recent market launch of eConta, no financial data were provided to the researchers. The performance of the development activities within BBVA was positive. This is derived from the fact, that the goal of BBVA to “rapidly develop the new service” was accomplished successfully. The following exhibit shows the final website offering of the new service as part of the general service portfolio of eConta.

The screenshot shows the eConta website interface. The main heading is 'ASERORÍA Y GESTIÓN CONTABLE-FISCAL'. Below this, there is a list of services including 'Elaboración de los estados contables', 'Presentación de impuestos', and 'Elaboración de libros oficiales'. A sidebar on the left contains navigation links like 'Inicio', 'Empresas', 'Autónomos', and 'Otros servicios'. At the bottom, there is a pricing table with two rows:

MODALIDAD ECONTA	→ 105,95€ / MES
MODALIDAD ECONTA PREMIUM	→ desde 125€ / MES

The 'MODALIDAD ECONTA PREMIUM' row is circled in red. Below the pricing table, there is a contact form with fields for 'Nombre', 'Teléfono', and 'Email', and a checkbox for 'Acepto la política de privacidad'.

Exhibit 47: eConta Premium Market Launch

Only four months after the first information regarding the misfit of the existing standard service was gathered the novel service was already launched to the market. Hence the main goal for the development of the premium service “*Really we wanted to launch the product in a rapid way*” (Project leader, 431:431) was accomplished as “*we are already finalizing [date of Interview May 2009]. We are testing and we are doing the last tests and the first months in which it will be put in production will be the month of July.*” (Project leader, 370:370).

When compared to the general development time which service development projects usually need, the quick time to market becomes especially prominent. Griffin (1997) identified in her study on the differences between product and service development, that service development projects need, even mere incremental improvements, in general 7 months. Approximately 9 months of project duration

was identified also in prior research by Mercer Management Consulting. Hence, as the eConta premium service was launched in early July 2009 only 4-5 months were spend from the initial idea to the final market launch. As this lists well below the average time to market for incremental development projects, the performance of the project management is assessed as successful, which has been summarized in the following exhibit.

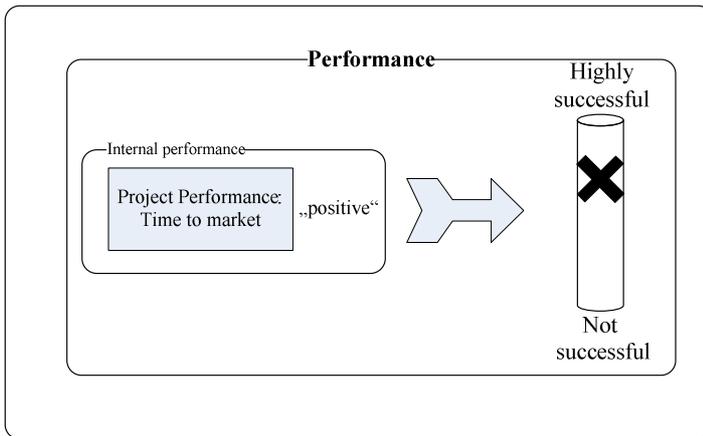


Exhibit 48: Performance eConta Premium

5.3.2 Degree of Newness

The degree of newness of the Econta Premium Service development was assessed via the service innovation model by Gallouj & Weinstein (1997). As had been indicated already in prior assessments of other innovation examples, three dimensions of the novel service are being evaluated in order to assess the respective degree of newness. Firstly, the technical characteristics, secondly the service provider competencies, and thirdly the customer competences are being evaluated.

As regards the technical characteristics of the Econta Premium service, here the technical infrastructure changed only moderately, as the basic service characteristic, i.e. providing online accountancy, remained identical in the Econta Premium service, as becomes visible in the following exhibit.

	eConta	eConta Premium
Recogida de documentación a domicilio	X	✓
Introducción de datos	Cliente	eConta
Confección estados contables	✓	✓
Presentación de impuestos	✓	✓
Entrega a domicilio de documentación, estados contables y justificantes liquidación de impuestos	X	✓
Acceso a información en la plataforma eConta	✓	✓

Exhibit 49: Differences eConta Premium and eConta Basic

This becomes evident also in the description of the added value the Premium line offered to the eConta client. As the main advantage for the client, the collection and digitalization of the client's accounting relevant documents was identified. *"Econta Premium: We take care of everything. A messenger collects the documentation in the client's office and brings it to your accountant. Once it is processed it is brought back to you so that it is back in your possession"* (email advertisement, Econta) This additional feature which thus differentiated the newly developed premium line from the basic service was also mentioned by the project leader of the project: *"Therefore here [Econta Premium] is what we do, we send a messenger at the first days of each month to the clients home and we collect his documentations in his office. We have an agreement with Imbra which is one of the leading technology firms in Spain, in order that they make the recording of these data."* (Project Leader, 296-299) *"Once we did the accountancy, ... , all the documents are going back in addition to his accounting."* (Project leader, 314) Finally, through connecting already existing information about the clients' spending behavior (on the basis of the clients' BBVA bank account) with the eConta database, additional changes were introduced which, however, also concerned only the gathering of client's information in order to perform the actual service task of accounting.

Hence the main difference between the technical characteristics of the existing and novel service constitutes the collection of the documents and the digitalization thereof as well as the automatic collection of financial information via the clients potential bank account at BBVA. As most activities, were, however outsourced to external partner organizations, the consequences for the internal organization of the processes and routines for providing the service did only change marginally. *"From the point of view of the processes, they are incremental processes, there are not complicated to put"* (Project leader, 414:414) This incremental nature of the change also became visible through the lack of project management or business plan writing for the change activities.

“In fact, there was not project management with all task definitions and dates” (Project leader, 431:431)

Hence, as the above data indicates, only a limited set of novel characteristics were added to the service characteristics which, otherwise remained identical. Due to the additional evidence that only little changes in the procedures and management of the Econta service were observed, the evaluation of the degree of change in the technical characteristics is that only moderate changes were performed.

As regards the provider competences, i.e. the competences of single persons or small teams responsible for delivering the service (Gallouj & Weinstein, 1997), only minimal changes were observed. Due to the digitalization of the documents of the client, the accountants performing the service needed to engage in additional activities as the information was not entered by the client anymore, but they were entered by the accountant. Hence some new work-steps were added to the tasks of the service delivery personnel. *“The clients can choose the option eConta Premium, a service which includes the collection of the documents once a months. The team of accountants of eConta take care to update all fiscal and tax affairs of their clients.”* (www.econta.com/FAQ)

Hence, the competences of the service delivery personnel did not change much, as only rather simple activities were added to the service. Hence in the dimensions provider competences, only minimal novel elements were added.

Finally, as regards the customer competences, i.e. changes in the co-production role of the client, here similarly, some changes were observed in comparison to the already existing service of eConta. Through the added service characteristics of digitalizing the clients' documents, clients did not need to enter information about received invoices or payments etc. into the online application of eConta. Hence clients' participation in delivering the service has been reduced. By choosing the novel Premium service, the client just had to hand the relevant paper-based documents to the messenger which collected these at the beginning of each month. Hence the interaction of the client with eConta is reduced resulting in a change of the customer co-production role.

All in all, due to the moderate changes in the different service dimensions, the overall assessment according to Gallouj & Weinstein's (1997) model indicates that the eConta premium services constitutes an incremental innovation. This is due to the fact that, some novel elements were added

yet most of the service characteristics remained the same, when compared to the priory existing standard service of Econta. This evaluation is summarized in the subsequent exhibit.

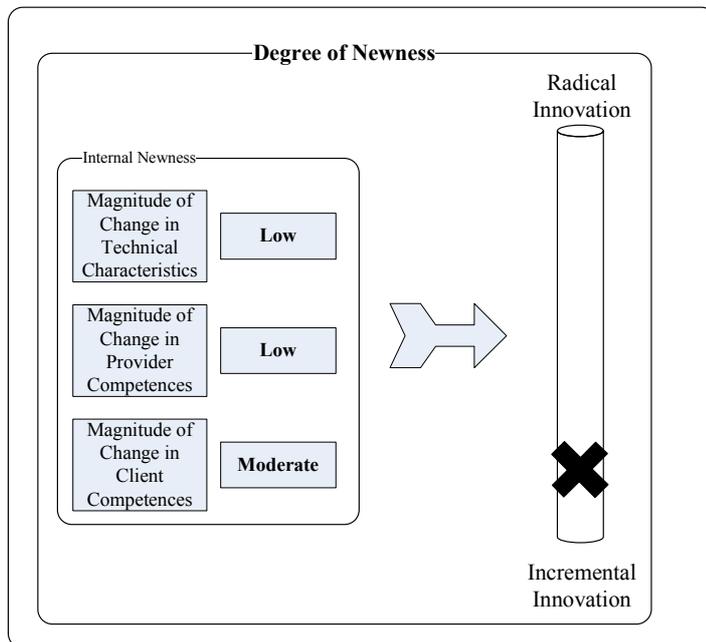


Exhibit 50: Degree of Newness eConta Premium

5.3.3 The Absorption Process

5.3.3.1 Recognition

As had been indicated already in the general description of the service delivery process, Econta existed already as a start-up company and was identified by BBVA senior management during a start-up venue in Spain. BBVA institutionalized routines in order to make sure that these venues were monitored on a continuous basis. As data revealed the bank was used to attend or even sponsor such start-up fairs in order to recognize potentially interesting acquisitions. These scanning routines, again, were based upon the priory defined innovation strategy which comprised the search for novel ways to respond to important customer needs with latest technological solutions. Hence in order to fulfill these goals, start-up venues were monitored and during one of the largest start-up venues called "SIMU", Econta as a company was identified. *"The rationale which lies behind the acquisition of Econta, or the purchase of 70% of Econta, which is what was purchased, is based upon the innovation strategy which was initiated in 2006 more or less. This strategy basically has two pillars. These were the two pillars which we understand as being critical in the banking business which are the client and the technology. ... I think it was in the year 2006 when BBVA in*

the venue “SIMU”... it is an innovation venue, it is the leading innovation venue in Spain. ... BBVA is present like a reference for innovation, it is one of the sponsors of this venue. Anyway, it has a very active participation in this venue and in this venue I think in 2006, Econta was present and exposed its company, and hence BBVA got interested. And from there first talks started.” (Project leader, Econta, 044:058)

Hence routine monitoring activities based on the general innovation strategy of BBVA, lead to the identification of the value which Econta as a start-up business could generate for the bank. While after this 70% of the company were acquired by BBVA, the bank did not interfere in the management of the start-up for a period of time. While this regular venue participation was the main mechanism for recognizing the value of the acquisition of Econta, in a second step, the recognition of the value to search for novel technological and market knowledge in order to improve the by Econta offered services was triggered by a general market research campaign. While originally this market research campaign did not comprise asking questions specifically oriented to Econta’s business, marketing experts inside the Centre for Innovation inquired about the possibility to include some questions, as general management showed dissatisfaction with the sales of Econta’s services in the bank’s branches. *“We were worried because we saw that the network of BBVA had problems to sell”* (Project leader, 384:384) Due to this the support of the customer insight department was inquired: *“All this was because Consumer Insight launched a project which was called project Giga ... in November, December last year [2008]. Hence Consumer Insight launched this project which was called project Giga in order to know what would be the needs of SME’s with respect to the bank and hence we told them “Listen, as you are doing this important study, would it be ok for you, that you would include VirtualDOC, Tepresento, and Econta inside of this study? They told us ok we will ask about your businesses but that you know that there will not be in-depth interviews [for your inquiry] because the whole study is for us and is different, but we will do you this favor. And this at the bottom of the study the results of Giga created a chaos and we saw that it was a necessity [to] do a brutal repositioning, a new positioning and with the knowledge which they brought us, we did a small study only for Econta.”* (Project Leader, eConta)

Initiated by this insight due to regular market research activities, the value of looking outside for additional insights from the market and technology was recognized which necessitated a stronger participation of the bank in the business of Econta. *“Between June 2007 and February 2009 there did not exist any participation of BBVA in the management of Econta...In February this year, I am from the bank, and the bank decided to participate in the management of Econta and to bring new*

ideas, improve the management processes and so forth, therefore from this year, from February 2009 the bank intervenes in the management of Econta. ... But the processes, everything which are the processes and the management approach continued to be little professionalized, and therefore one of the things which waited to be done at Econta is the transition from a company, from a start-up company based in friends and family, into a more professionalized small or medium company. ... Therefore because of this the bank decided to participate in the management. (Project Leader, 228:248)

Hence activities related to the recognition of the value of external knowledge were observed to have taken place twice, firstly when the start-up company Econta was identified which subsequently resulted in its acquisition in order to gain access to their expertise. Secondly, the value of external knowledge was recognized when BBVA monitored the market for SME's. The from this monitoring derived, unexpected recognition of a need to change the Econta services, resulted in the search for more specific external market and technical knowledge in order to improve the services offered by Econta.

5.3.3.2 Acquisition

After the acquisition of Econta as a start-up company, especially regarding the development of the eConta premium service, external knowledge was acquired. Here, particularly market knowledge needed to be acquired in order to plan the improvement of the existing service offerings of Econta. In February, the customer insight department within BBVA performed an in-depth market research in order to reveal the needs of small and medium sized firms as well as freelancers which were regarded as the main source of potential clients for Econta. Here, BBVA's specialized market research acquired the information via qualitative market research studies in order to reveal potential customer needs.

“Therefore what happened is, we saw the necessity to do a study not only for Tpresento but also for Econta where we could see a little bit the necessities and how the sector of SME's was in Spain. Therefore we contacted Customer Insight department that they would make us a study about Econta...” (Marketing expert, Centre for Innovation, 188:190) In addition the project manager of Econta mentioned: *“In February there was a study by the customer inside department and they saw that the service is very good and that the clients of Econta value it very well, but the market niche of clients to Econta is very small, because The profile of the general client is, that he is not used to enter his data in a platform...” (Project Leader, 288:290)*

In more detail the study performed by the customer insight department was designed to ask rather direct questions to the potential customers in order to reveal whether the current services offered by Econta would be attractive or not and whether clients would be willing to contract Econta as their accounting service provider. *“We paid the study, but it was managed by Customer Insight as they are the specialists, and they guided us and they told us, a lot of Know How, and at the end we focused pretty much on Econta. And we did not do the questions, those were done by them, ok [customer insight department] But these were in-depth interviews. ... Like imagine you were a SME, the responsible for a SME and an interviewer comes to you and explains a little bit what is Econta and so forth. You do not know anything. And once he did the speech to you he starts to ask you if you were interested in the product. Well he will guide you, well why do you like it why do you not like it? Why? Why not? Well this type of questions.”* (Marketing expert, Centre for Innovation, 200:202)

Besides this specific inquiry into the client needs in relation to the Econta service offering, also more general, publicly accessible market knowledge sources were identified and used. *“We searched in all places, like in the results of existing studies, for example Red.es. Red.es is a Spanish governmental society which manages all domains for example. It is an organization which has a lot of very good information about the sector, does sector specific studies about SMEs in new technology, well all this kind of knowledge. All these sources we are going to gather, how many SMEs exist in Spain, how do they use the internet how many contract advertisements, well a series of very important indicators which tell us, where they are going and what the firms want. Hence we have used a whole lot of sources, and the most important are those. We have used a lot “el Estudio General de Medios” an internet study which we used a lot. Normally these are publicly accessible because luckily the sponsors of these are public organizations. These are at disposal and even better they are really good.”* (Marketing expert, Centre for Innovation, 255:261)

Thereby the identification of these publicly accessible sources was performed via classical internet search and was based on prior professional experience. *“We searched in Google and at the end you have a professional education and you are inscribed to thousands of bulletins and newsletters ...”* (Marketing expert, Centre for Innovation, 261:262)

Yet, not only direct search within the different publicly available knowledge sources was performed, but additionally personal networks were used in order to access specific knowledge

sources. Here especially marketing researchers took advantage of personal contacts to Google Spain were additional studies on SMEs had been conducted in the recent past. *“But I work a lot with Google. Google has, does internal sector specific studies about advertisement for example about the technology sector or the real estate sector and always I ask them. Listen do you have something... I know nearly all of them [inside Google Spain]. Here we know nearly all people inside Google [Spain]. I worked with them a lot...”* (Marketing expert, Centre for Innovation, 263:274)

This information was used rather at the beginning of the project in order to ascertain how to change the service offerings of Econta. After the new service had been developed, no testing of preliminary versions of the novel service was conducted, however. Testing was limited to fictional cases to which the novel service design was applied. Yet, first information about the adequacy of the novel service for real customers was performed only after the service was ready. Here, first real customers were regarded as the main source of feedback about the novel service offering. *“We have not yet done testing with clients. We are doing at the moment trials with fictive clients. Well but we have not done testing with a client, in July with the first clients we will do testing.”* (Project leader, 376:377)

Technical knowledge acquisition was performed only to a small extent. This was due to mainly two reasons. Firstly, novel technical knowledge necessary for developing the Econta premium service was identified via personal networks of the general manager of the Econta start-up firm. This knowledge for scanning and storing the digitalized documents of Econta’s premium clients resided within a leading technical service provider called “Imbra”. While Econta needed their expertise in order to realize the service, they chose to only contract their scanning and digitalization services rather than trying to acquire their expertise in order to operate such activities on their own. Hence, this specific technical knowledge was not acquired by BBVA or Econta, but engineers employed by IMBRA developed routines and software solutions in order to connect their services to the tasks operated by Econta. Hence while the expertise was recognized, the acquisition transformation and application of this knowledge was not performed by BBVA or Econta itself. *“With this engineer [from IMBRA] in these weekly meetings, it was where all the workflow was designed, all the flow of information exchange, the communication channels, and later logically IMBRA did their internal work of defining what internal processes they needed to define, what internal processes they needed to create. This definitory work lasted approximately one and a half months, and now since two or three weeks we are in the phase of trials.”* (Project leader, 410:411)

Secondly, the optimization of the internal processes related to the further improvement of the Econta services was based on BBVA's long standing expertise in process management and efficiency optimization. Here a specialized internal department supported the project leader for Econta to improve the internal management and design of the processes. *"There exists a department inside the bank which is called department of Transformation and Productivity. This is a department which basically does process analysis. Inside BBVA it does an analysis of the internal processes of BBVA in order to optimize the processes, to make the processes more efficient, and we asked for September for a collaboration with this department so that they can do an analysis of Econta and also for support regarding the mail [Econta Premium] processes of Econta."* (Project leader, 424:429)

Hence, only little external technical knowledge was actually absorbed, as large parts of the technological know-how for realizing the premium service of Econta were outsourced to an external service provider. In addition, internal optimization of Econta's processes related to the service delivery of the premium service was performed by BBVA's internal optimization department.

5.3.3.3 Transformation

Transformation of external knowledge

Within the development activities related to the Econta Premium service, only few transformation activities were observed. This observation concerns both the transformation of the externally sourced (market) knowledge, as well as the transformation of the internal knowledge base. The little amount of activities related to transformation were observed in the transformation of external market knowledge. Here, as also seen in the other example already, market research specialists from the consumer insight department supported the members of the Econta premium service development project to understand the consequences from the market research studies which were conducted for the project. *"We paid the study, but it was managed by Customer Insight as they are the specialists, and they guided us"* (Marketing expert, Centre for Innovation, 200:200). In addition, the consumer insight department reported their general transformation activities in nearly all market research activities.

As regards the transformation of external technical knowledge, as was already reported in the acquisition section of the process description, only little technical knowledge was acquired for

developing the Econta premium service. Most of the necessary expertise was contracted from an external partner and was not transferred into the organization. This became especially evident in the fact that the design of the routines for integrating the externally contracted technology into the Econta premium service was also performed by an external engineer. Hence, the observations indicate that for Econta no technical knowledge for the novel solution was integrated into the organization. Consequently, no technical knowledge needed to be transformed in order to be understandable and applicable by BBVA's internal staff. *"We have a contract with one of the, with IMBRA, which is one of the leading technology firms in Spain. They do the storage of these data. This they do in an industrial manner. Exactly, Scanning. And all the data mining of all these documents [of the client which does not want to enter his information online] they do in an industrialized way. Ok? Hence, once IMBRA has done the data mining of all these documents in 72 hours, Econta can do the accountancy."* (Project leader, 302:304)

Transformation of internal knowledge base

The internal knowledge base of BBVA was, except for prior investments in specialized departments, not transformed in order to become capable of understanding externally sourced knowledge. During the Econta service development, prior investments in a specific department capable of performing non-banking related market research resulted in the fact that no transformation of the internal knowledge base of BBVA was necessary during the Econta premium service development. As had been described already in the prior example of service innovation inside BBVA, the bank created specific departments which were directed at transforming the internal knowledge in order to be capable of understanding and applying novel technologies as well as becoming capable of understanding consumers in both banking and non-banking contexts. Due to this re-orientation of BBVA's expertise areas, the consumer insight and business partner department were founded. For the Econta premium service, especially the consumer insight department supported the development via acquiring and transforming market information needed for the development of the service concept. *"We paid the study, but it was managed by Customer Insight as they are the specialists, and they guided us and they told us, a lot of Know How, and at the end we focused pretty much on Econta. And we did not do the questions, those were done by them, ok [customer insight department]"* (Marketing expert, Centre for Innovation, 200:200)

As only little technical knowledge was sourced for the Econta premium service development which needed to be applied by BBVA itself, the business partner department was not involved in knowledge absorption related activities. *"What happened is that IMBRA is the leader in its*

market... they have the best tactics, and I understood that it was not necessary, IMBRA had already the processes designed, and simply what they did with Econta was adjusting their already established processes [to fit Econta]" (Project leader, 418:419)

Neither led the acquisition of Econta as a start-up company to a transformation of BBVA's knowledge base. Different from the acquisition of Strands.com, Econta was left rather detached from BBVA and until recently no interaction between the two firms was performed. Hence, Econta's experts in the field of accountancy were not connected to BBVA's own knowledge base. Hence, while in the example of Tuentas the acquisition of Strands led to a transformation of BBVA's knowledge base due to the added expertise fields, this was not observed having taken place in the case of Econta. If at all, the knowledge base of Econta was transformed due to the increasing interest of BBVA to professionalize the procedures and service offerings of the start-up firm. *"Between June 2007 and February 2009 there did not exist any participation of BBVA in the management of Econta...In February this year, I am from the bank, and the bank decided to participate in the management of Econta and to bring new ideas, improve the management processes and so forth, therefore from this year, from February 2009 the bank intervenes in the management of Econta (Project Leader, 228:248)*

All in all, no transformation of BBVA's knowledge base was observed in relation with the development of the Econta premium service. The only transformation activity observed concerned the transformation of the detailed market research results into understandable management knowledge by the consumer insight department.

5.3.3.4 Application

As only little technical knowledge was acquired, mostly externally acquired market knowledge was applied to the service development. Here the insights gained via the market research studies conducted by the consumer insight department resulted in the decision to introduce a new service which would respond to the gained insights. *"In February 2009 they did an analysis and the conclusion of this analysis was that the actual client of Econta is very satisfied with the service but when they do an analysis of potential clients, the clients which are interested in contracting Econta in the "normal" business model, we call it "the Standard" which is the introduction of the data [online by the client itself], this is only a very small percentage which does not reach even 10% of the clients. Hence resulting from this analysis once I entered the company I participated in the*

management of the company like I told you... we do a restructuring of the strategy of Econta in the sense that [for] BBVA [it] is a product which they direct at a mass market to sell Econta like a normal product from its catalogue. We need a product which is suitable for the whole market not only for a niche. Hence, [it] was [there] where the idea emerged to create a product less technical which would adapt itself more to the whole market.” (Project Leader, 337:342)

Hence priority acquired market knowledge became applied in the decision making about changing Econta's current service portfolio.

In addition to informing the actual decision to introduce a novel premium service, the information gained through the different sources such as market studies, customer inquiries, and more, supported the design of the premium service and hence were also applied to the actual development work for Econta Premium. Here, especially the insight about the small percentage of potential customer willing to enter their information online as well as the preference of clients to not personally introduce their financial information in an online application were applied to the service development of Econta Premium. While this information was used also to design the actual service, it was also applied to the marketing elements of the novel service, such as the branding, positioning, and communication. *“In this study consumer inside [department] helped us and once we had the study we had [to create] a new brand, a new positioning and a new orientation of communication.”* (Marketing expert, Centre for Innovation, 232:233)

As regards technical knowledge application, here data indicates that only little absorbed technical knowledge has been applied to Econta Premium. As had been reported elsewhere already, in the short run, BBVA decided to contract an external organization in order to manage certain technically oriented procedures involved in the Econta Premium service delivery.

“Hence from today, this is a process which is performed by IMBRA, meaning, IMBRA receives the documentation of the client, digitalizes it, enters the data of the client, sends it [back] to the client and the client can enter the platform and can see his digitalized documents and his accounting.” (Project Leader, 322:323)

In the medium term, however, BBVA decided to take advantage of its own knowledge base, residing in a separate service development called VirtualDoc.com. This parallel service was developed also in recent years and is oriented towards digitalizing client's documents in order to improve clients' document flow as well as storage. Hence, BBVA identified that the knowledge and expertise residing within this service could be combined with the premium service offering of

Econta. *“We said that we had to go integrating the bank platform of BBVA with the accounting platform of Econta and as a third step in this integration is VirtualDoc which we say will be doing all the industrial processes for the data entry.”* (Project Leader, 329:330).

As had become evident in the above quote, in addition to the integration of VirtualDoc and Econta, BBVA decided to connect the client databases in order to take advantage of the information inside the bank for the delivery of the accountancy services. Here, expertise inside the bank about customer information was made available for applying within the Econta services, as the head of Innovation Manuel Castro mentioned: *“A nice example of our understanding of innovation is eConta. If for a freelancer or entrepreneur we are administrating his/her incomes and expenses in a normal savings account, we can have 70% to 80% of the needed accounting information. As a result, we can do analytical accounting, declaration of taxes and other services online. This is an analogy for us. An everyday service, the bank account, and a product or service such as accounting services, these we put together and generate a product and a service anew and with added value for the client.”* (Manuel Castro, Interview Infonomia)

While the application of the internal expertise about customer information was already realized inside the service development of Econta, the postponement of the integration of the prior knowledge residing within VirtualDoc was observed to be mainly due to lack of capacities for operating the amount of data for Econta. *“It makes sense to do it with IMBRA, basically because IMBRA has the capacity, it has the capacity to do it immediately . Well as these were products which we put to the market very rapidly, we use IMBRA, because IMBRA has the infrastructure ready in order to do this, VirtualDoc has the procedures but does not yet have the capacity.”* (Project Leader, 325:326)

In addition, it is interesting to note that all prior steps within the absorption of (mostly) market knowledge, were performed by the centralized BBVA innovation centre. The application of the knowledge, however, was done in the separate organization of Econta. Although BBVA owns 70% of Econta, still the firm constituted a separate organization and the knowledge flow from inside the BBVA innovation headquarter to the start-up shows that not all absorption activities of one firm necessarily have to be performed within exactly the same organization but in this case included two organizations.

Hence all in all, the acquired market knowledge was applied in the design of the Econta premium service development. As has been indicated in the above, only due to the novel market knowledge about the customer preferences, the here presented premium service was developed. In addition, due to the availability of the customer feedback, already existing expertise in the form of digitalization know-how within the BBVA project VirtualDoc was identified as being beneficial to Econta Premium service. Due to this it is argued that the external market knowledge was applied in the development, but in addition, this knowledge triggered the application of already existing technical expertise, too. Finally, due to the fact that the application of the absorbed and already existing knowledge of BBVA was applied to the start-up organization of Econta, the application of the sourced information was observed to having taken place both inside and outside the boundaries of BBVA as an organization.

5.3.4 Dynamics of the Absorption Process

Within the absorption activities related to the development of the eConta Premium service, a sequential, step-by-step movement from one absorption stage to the next was observed. As mostly market knowledge was absorbed for the eConta Premium development, no dynamics related to technical knowledge absorption is reported here.

Within the eConta project, particularly at the beginning of the project, information was sourced via market research studies. These were designed after the value of novel customer oriented information was recognized through the poor performance of the basic eConta service offering. After the value had been recognized, the consumer insight department conducted two subsequent studies, the first being rather general and the second more specifically concentrated on the eConta characteristics. For each study, the consumer insight department supported the project leader in understanding and making sense from the gained insights from each study. Resulting from this, the transformed insights from the first market study were used to take the actual decision to create a premium line for eConta, while results of the more detailed, second study were applied to the actual service design of the premium line of eConta.

Yet, after these two initial studies were conducted, analysis of the interviews indicates that no further absorption activities were conducted within the context of the eConta Premium service development. Only at the very beginning of the project, iteration of absorption activities was observed, due to the two market studies conducted. While in other projects at the end pre-market

tests led to an additional influx of customer input, this did not take place here. *“We have not yet done testing with clients. We are doing at the moment trials with fictive clients. Well but we have not done testing with a client, in July with the first clients we will do testing.”* (Project leader, 376:377)

Neither did the single absorption stages overlap, as the insights from the first study resulted in the decision to improve the current eConta service and, subsequently after this decision was taken, a second, more detailed study was conducted which served as a major input for the service development activities.

Hence, all in all, only few iterations and no parallelism of single stages of the absorption process were observed within the eConta Premium project. The process was observed to be rather sequential in nature, as the first external learning activity was finished before the second learning activity started. Finally, due to the lack of technical knowledge absorption, the dynamics of the absorption activities within the eConta service development project were additionally limited.

5.3.5 ACAP and the Innovation Process

As has been described in the general overview of the development process of the eConta Premium project, this incremental innovation also followed the main stages of the general innovation process at BBVA. The difference to the radical project pertained mostly to the reduced numbers of iterations. If now the process of absorbing external information for this project is being compared to the observed innovation project, then similar patterns emerge. Also in the absorption process, only reduced levels of iterations were observed. In addition, no parallelism of absorption stages was identified. Regarding the conduct of the absorption and general innovation processes, it was observed that in the beginning of the innovation process, most of the recognition of the value of external information as well as its acquisition was done. Later, during the concept development and implementation, the transformation and application of the acquired information was done, as the external insights needed to become integrated in the service development.

However, although less iterations of the ACAP process were observed when compared to the radical projects, nevertheless towards the end, a second cycle of absorbing external information was observed. This second cycle was due to the feedback of the customers in the test phase of the new service. However, due to the fact that this feedback was not reported as having necessitated changes

in the basic service logic or infrastructure, this did influence the conduct of the general innovation process only to a limited degree.

All in all both processes were paralleling each other to large degrees. During the early stages of the innovation process, the first acquisition of information was performed leading to its application in the conceptualization of the new service. After this a second round of information absorption was initiated which took place in the prototype testing. Hence, two iterations were observed which run in parallel to the innovation process. This is visualized in the following exhibit.

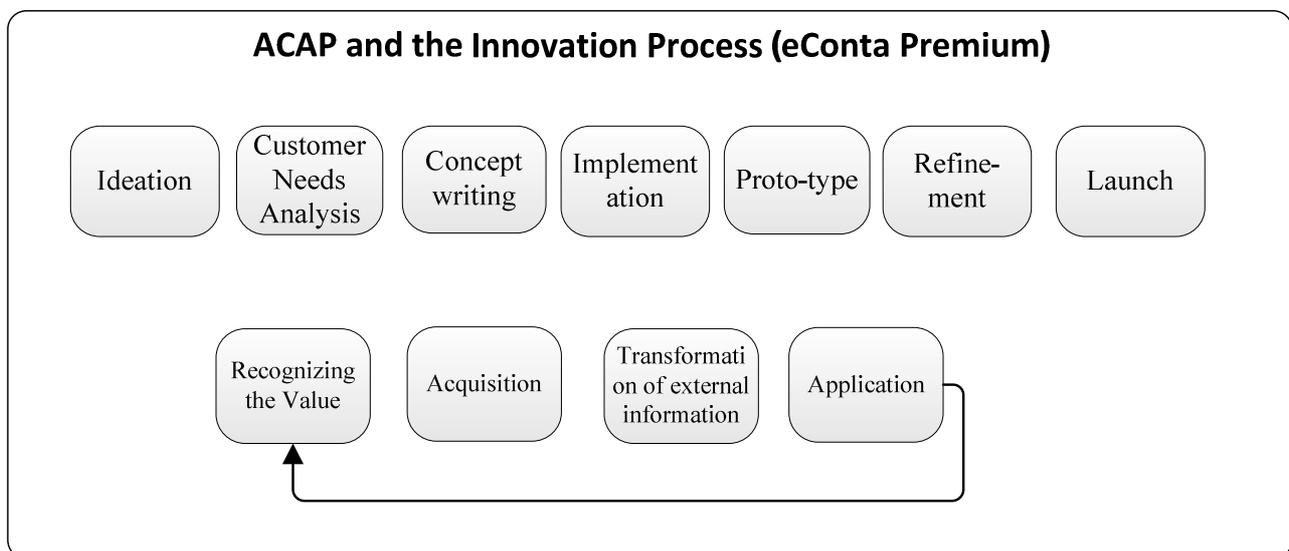


Exhibit 51: ACAP and the Innovation Process (eConta Premium)

5.4 Facilitators and Inhibitors of the absorption process

In this section, inhibiting and facilitating factors for the ACAP process are being analysed. Most of the presented factors influenced both innovation projects (TucUentas and eConta Premium) as they were longstanding components and characteristics of the whole organization of BBVA, or were rooted in the external context of the firm. Hence in many cases the presence of these factors was given for all innovation related activities. For this reason, the structure of the here presented analysis of these factors is not formally separated into the two innovation projects, as several times the same organizational settings (e.g. intellectual property rights, firm size) influenced both projects to similar degrees.

5.4.1 Social Integration Mechanisms

Social Integration Mechanisms, i.e. the sharing of knowledge in order to facilitate understanding and comprehension (Zahra & George, 2002), were observed to be present inside the bank.

To start with the general description of these mechanisms inside the bank, the centre for innovation in Madrid had been purposefully designed in order to allow innovation workers from different disciplines such as technology monitoring, marketing, or project management to communicate easily and meet each other easily. *“Here in the group within the centre [Centre for Innovation] a lot of relations are generated and it is a familiar place. We do not have physical barriers which would impede us from talking or relating with the people. At least for me in my daily chaos it is like working with the people, it is like a sales manager who is approaching, can talk, discuss with a coffee, when you pass by, when you enter [the area], the surrounding turns to this. Also the structure that a new person circulates [through the different areas of the centre], with this you start knowing the person...”* (Head of Business Partner Department, 117:118)

In addition to this statement concerning the openness of the centre for innovation, also other incumbents mention the possibility to freely receive feedback and benefit from colleagues' expertise. *“Well, we are here innovating for the bank in the non-financial topics, we are three persons in the team and we need to be very compatible and we need to help each other... we are very used to share knowledge because we think that innovation at the end does not occur from a big idea but it occurs because at best you talked to a person which commented to you concerning some*

topic and in one of his phrases this one small thing pops up. So to speak, the idea is not yours it is co-created with a large amount of people... (Marketing expert, 035:035, 275:275)

This collaborative context within the centre for innovation became also visible in concrete performance appraisals inside the bank. Here, knowledge sharing, and giving support to other departments or colleagues was formally included in the personal performance assessment of the bank's employees. *"In BBVA there exists a certain collaborative culture in the work, in that way as no big formal agreements have to be signed in order that the people collaborate. I believe this is part of the culture. Practically all employees have within their annual goal setting to assess the quality of the service we deliver to our internal clients. When you ask for collaboration to another department and this department does not collaborate with you that department will obtain a bad evaluation of its service to the internal clients within BBVA."* (Project leader, eConta, 470:478)

Also, exchange of information among members of BBVA was made possible via frequent public events inside the centre for innovation. Direct observations allowed for the insight, that within a special semi-public area of the centre for innovation, speeches, book-readings, and other events were offered. After these events, further discussion and exchange of information was facilitated.

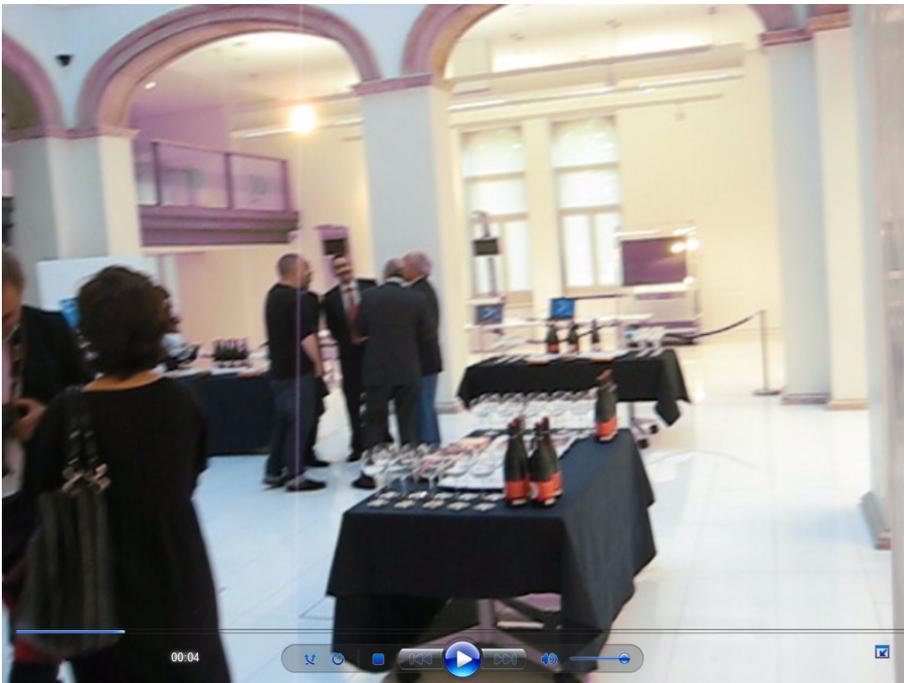


Exhibit 52: Social Integration Mechanisms in Practice

Besides these rather informal activities within the centre for innovation, also more formalized knowledge sharing mechanisms were institutionalized. For example, BBVA created certain

positions inside the bank in order to facilitate the identification of experts for specific topics. Here, brokers were available to the staff to which information seekers could resort if they could not find by themselves experts in topics of their interest. *“When you have a [system] conflict, how do I succeed in connecting this system on a process level, you search for a person normally inside the bank and you talk to him, also there exist channels where the overall knowledge of the bank is managed. There exists a person we talk to about this, like listen can you help me doing this, and this person distributes this project. He searches for the person which could help you and many times is handed over to you so that you can interact directly with him. ... If you do not know the person you say, I need to do this project, I need this, he searches these persons, makes a meeting...”* (Head of Business Partners, 075:078)

Also, BBVA invested in creating certain knowledge data-bases and internal blogging platforms in order to facilitate the exchange of information and knowledge among its employees. BBVA invested in specific search engines in order to scrawl internal databases and introduced new channels for improving communication. Among others, blogging space called “Blogsfera” as well as “planta29” were introduced in order to facilitate exchange of information and opinions. In addition, in order to improve in-house meetings, IP-video conference technology was acquired. The use of these tools was observed to having taken place for the exchange and sharing of innovation relevant knowledge. For example, market research experts from consumer insight were made responsible to create a database with recommendations and explanations on how to conduct market research, what sources to use, which persons to talk to, etc. in order to facilitate non-experts to engage by themselves in initial market research activities without directly requesting the assistance of the consumer insight department. *“And one of the task here was to share the information and to try to make the information available to everyone for the people in BBVA. All our know-how and all our knowledge about the customer has to be at disposal for the people who really need the information in order to take the right decision...One of the tools which we have is a [web]portal an internal porta. It has the purpose that our knowledge becomes freely accessible...”* (Market research expert, 098:100) The market research expert continued explaining the specific content and knowledge sharing opportunities of the initiative as follows. *“And you have here the option and then news. News about new studies published, in general news related to the world to marketing, market research and also data mining and you can subscribe to a bulletin and I don’t know if you have heard we have Blogosfera. It is a place in the Internet where you can have your blog. In consumer inside we have our blog. So it is a new way to communicate with employees.”* (Market research expert, 108:111)



Exhibit 53: Internal Knowledge Transfer BBVA

Finally, also the general project organization as well as the frequent evaluation meetings comprised in the innovation procedures of BBVA supported the sharing of knowledge among relevant people inside the bank. Each innovation project consisted out of multiple department meetings which made frequent exchange of information possible. Especially within the Tucuentas service, project organization and evaluation meetings served as important means to share knowledge among the project members. As was reported in interviews, a formal kick-off meeting was conducted followed by monthly status-meetings in which discussions and exchange of information took place. *“Firstly, we did a general presentation to all departments at the beginning of the project, and afterwards what was done was a specific and concrete presentation to each single department involved, how the project impacted in these departments. ... And every week existed a newsletter and apart from that existed a monthly meeting with all departments.”* (Project leader Tucuentas, 152:160) Besides these regular meetings with all involved parties, also repeated evaluation meetings with the head of innovation served as platforms to share insights. Here, also other persons from other departments of BBVA were invited. *“Manuel Castro...knows the house internally very well in order to know how we could integrate this project within BBVA...and in this presentation [intermediate evaluation*

meeting May 2009] it was presented by Manuel Castro to the whole internal bank.” (Project leader, 102:110)

This intense information exchange among the key players of the project was not observed to be as present in the eConta Premium service. As was reported in the evaluation of the degree of newness already, the complexity of this project was considered low and as a consequence, no regular meetings with internal departments were conducted. *“From the point of view of the processes, they are incremental processes, there are not complicated to put” (Project leader, 414:414) “In fact, there was not project management with all task definitions and dates” (Project leader, 431:431)*

The lack of frequent knowledge exchange within the project was also due to the fact that mainly the market research department “consumer insight” was involved at the beginning of the project, and at the end a specialized process optimization department of BBVA was asked to support the further improvement of the eConta services. Hence, due to the punctual involvement of these internal departments, no constant information exchange was performed. Rather, once specific expertise in certain topics was needed, the respective department was contacted directly.

All in all, at BBVA the integration of knowledge was facilitated in different ways. Though many possibilities to share knowledge were available, the use of these differed in the two presented projects. While in the tucuentas project, knowledge integration mechanisms were observed to having taken place frequently, in the eConta Premium service, the sharing of knowledge was not as active which may have been due to the differences in magnitude regarding the amount of new knowledge sourced from the external environment.

5.4.2 Network as Knowledge Source

Partner Organizations

Within the tucuentas project, an important knowledge source constituted the experts residing within Strands.com. As was indicated already elsewhere, BBVA decided to acquire a 25% stake in the start-up firm in order to gain access to the expertise in web- and recommendation-technologies of Strands’ employees. Here the investment was clearly aimed at profiting from this source also after the development of tucuentas had been accomplished. BBVA aimed at taking advantage of novel ideas which could emerge out of the projects Strands.com pursuit in parallel to their involvement in the BBVA’s tucuentas development. *“Strands has knowledge of recommendation [logics] and*

social media which we consider to exist only in very view firms. And exactly because of this we were interested that they could freely develop their projects and we could benefit from their ideas which they created. Hence from there we thought that Strands is very beneficial exactly because of their characteristic idiosyncrasy. They provide a differentiated value in contrast to other companies...” (Project leader Tucuentas, 206:206) *“I will explain to you a little bit the start of all this. BBVA maintains a double relation with Strands.com. On the one hand they develop projects on an ad-hoc basis for BBVA, such as was the case in Tucuentas. There a product was defined, it was defined what would be its characteristics, who would like to want this product, and [then] they asked Strands.com to develop this product for BBVA. ... And on the other hand, Strands.com is free to freely develop those products and those initiatives which they want. If BBVA is interested in any of these idea which Strands has, it is in the position to take advantage of it, because BBVA is stakeholder of Strands, ok? Hence, Strands does specific projects and on the other hand they develop their own idea and if there exists something which is of interest to us, we can take it for free.”* (Project leader Tucuentas, 028:034)

Similar to tucuentas, also the development of the eConta Premium service was conducted together with a small company, specialized in a specific niche. Similarly to Strands.com also a stake was purchased by BBVA, yet in the case of eConta, 70% were acquired. Based on this investment, the access to the already existing, basic service offering of eConta became possible. Nevertheless the collaboration with eConta was formally started with the purchase of the stake, BBVA did not access eConta’s knowledge base, until the existing services of the start-up could, for a period of nearly two years, not be leveraged to a large group of customers. *“Between June 2007 and February 2009 there did not exist any participation of BBVA in the management of Econta...In February this year, I am from the bank, and the bank decided to participate in the management of Econta (Project Leader, 228:229.*

Personal networks

Within the BBVA innovation activities, exploitation of existing personal networks constituted a relevant source for novel information. These contacts were used in order to get access to different kinds of knowledge. For example, interviews revealed that several people inside the centre for innovation maintained close links to large organizations such as Google which allowed them to access in particular specific market knowledge about customer behavior and market trends. *“But I work a lot with Google. Google has sector specific studies about advertisement for example about the technology sector or the real estate sector and always I ask them. Listen do you have*

something... I know nearly all of them [inside Google Spain]. Here we know nearly all people inside Google [Spain]. I worked with them a lot..." (Marketing expert, Centre for Innovation, 263:274)

In addition to access detailed market knowledge, personal contacts were also used to identify organizations capable of performing sophisticated technological tasks, as the project leader of eConta stated: *"An internal person had a contact, the general manager of eConta was in contact with the general manager of IMBRA, which is the firm which does all the system"* (Project leader eConta, 050:051). Besides the support personal networks meant for the identification of partners for the technical realization within the eConta project, also in the tucentas project, personal networks were exploited for knowledge acquisition. More specifically the head of innovation at BBVA, Manuel Castro took advantage of his relation to important experts in the information technology domain.

In addition, the identification of Strands.com was facilitated through personal contacts of senior managers of BBVA to technology experts who recommended Strands.com as the appropriate choice for the bank. Yet, it was noticeable that these contacts were not as well known to the project members as in the eConta projects and seemed to be more distant to the core activities of the bank: *"I forgot his name, I know that it is a very well known person with success with different internet firms in Spain, ... , and he was invited to come to the directors of the bank [to talk about Strands]"* (Head of Commercial Intelligence department, 046:047) In addition, the head of innovation, Manuel Castro, took advantage of personal contacts in order to invite industry and technology experts. These experts then served as feedback partners for the evaluation of the initial idea of realizing a service like tucentas. This feedback gained through personal contacts influenced the decision making process inside the bank and served as a validation of the tucentas service. *"We have a director of innovation which is called Manuel Castro and I believe that we can be very happy having him with us. This person is very well connected ... and has a lot of interest in listening to experts in the field of internet with regard to different areas, I know that before getting closer to this idea [tucentas] he contacted many people in order to expose this idea to them and to collect feedback from them. These persons told us that the idea could be very interesting and if this would make sense or not and from that the decision was taken to get it ahead."* (Project leader, 050:052)

5.4.3 Prior Knowledge

Related to the large size of BBVA, the amount of knowledge residing within the firm was observed to be very high. With more than 100.000 employees, the bank comprised expertise in many diverse areas. However, the here reported absorption activities were, to a large extent, focused on areas, rather new to the banking business, in contrast to most prior expertise which tend to focus on the core areas of BBVA's business model. Hence, due to the fact that the here reported innovation projects were oriented towards markets and/or technologies with which the bank had no long standing experience, the amount of relevant prior knowledge was reduced. Due to this, BBVA created new departments in order to support the bank's innovation focus, i.e. to combine the latest technology based upon emerging customer needs. *"I think the big difference only comes from the persons working in the markets and people working in innovation in my area, I think maybe nowadays we are very focused on new technologies and also we are experimenting with tools, with classical tools with other sectors, basically this is the difference and from the other side the markets I imagine, the people working there are real specialist in financial business. I think the point of view of them might be more classical and less focused on new technologies, they care about for example the classical channels, I think, the branches for example, while here I think the focus is on new technologies, o.k.?" (Market research expert, consumer insight, 116:118)*

In consequence, technologically oriented departments, and consumer oriented market research departments were founded to which the new innovation projects had access to. This transformation of the knowledge base of the bank was performed already two-three years before the services of *tucuentas* and *eConta Premium* were developed.

In consequence, these two projects benefitted from the broad and up-to-date knowledge residing within these departments. In addition, the expertise of these areas allowed for the facilitated absorption of novel knowledge, as the new technological and market areas were specifically designed to not focus merely on financial markets or related technology. As regards the consumer insight department, here, besides financial markets, also consumer markets unrelated to banking business were screened and monitored on a regular basis. Similarly, the newly oriented technical departments focused not on core-banking technologies only, such as ATM technology, but broadened their focus also towards technologies in areas as distant as nano-science. Hence due to the broadening of the banks knowledge base, prior existing expertise could facilitate both projects.

“The thing is that we noticed that we were going to purchase information from Millward Brown and it was the same information that is being purchase by BBVA, Coca Cola, Procter and Gamble, Unilever, Banko Santander So they are very good providing the information, they provide, but how are you going to distinguish yourself if you are using the same information. So probably we were feeling the need that we were needing extra information, so more accurate and most precise information and they could do it for us, tailor suit for us, but what if they ... provide that service to any other bank, maybe in Spain, maybe globally. So we say okay, why don't we develop our own consumer insight unit. Question: I see. When was the decision? I would say three years ago, probably less than three years ago. So in that way it is very much related to all this innovation and transformation and at that stage basically what the advantage is they hired the whole team of Millward Brown in Spain. So they now work for BBVA. So Millward Brown has to start again (laughing). They made some interviews and there is a psychologist, a sociologist, a mathematician, a statistic expert so there are the profiles that usually don't work for a bank. Bringing people from outside to give you some fresh ideas and well they are now providing advanced consumer insight, very much focused on finance, how society related to money and different use of money. They also explore different social trends because if we want to be competitive in the future we have to be imagining or trying to guess where the world is going in 2015, 2025. Now they have very - they have done a very interesting work.” (Marketing expert, centre for innovation, 211:215).

The creation of these novel technology-related areas was further described as follows: *“This area is a business unit called “nuevos negocios digitales”. Although this area has been created - has been working for the past five years this area which was started two years ago and what basically they did is to develop some of these new ideas and some digital business, one here, one there [and] take [it] then to a region where they can manage and coordinate it. (Marketing Manager, Centre for Innovation, 187:188) “And the technology needs to have a different focus; we have an area of innovation technology and there exists an area which is the “observatory”. The observatory what has the title “radar” and what they do is to ascertain continuously what technology could have a future, some type of impact in our business. They identify, and from there they develop new solutions but grounded in new technologies which from the beginning is suitable...[besides customer insight] ...technology is not only a mere supporter, it has converted also in a fundamental driver for innovation” (Head of Centre for Innovation, 031:033)*

These two new areas facilitated knowledge absorption in both reported innovation projects. In

the Tucuentas project, both recently established expertise areas facilitated the absorption of external knowledge. As was reported elsewhere already, the consumer insight department supported in acquiring and transforming specific market knowledge in order to design the service concept, while technology experts facilitated the acquisition and transformation of information for the technical realization. As regards the eConta premium development, here particularly the consumer insight department was, as described earlier, involved in identifying and understanding customer needs, while the technical realization of the new premium service was performed without direct involvement of BBVA's internal experts. In more detail, particularly during the eConta project the concrete expertise and knowledge about the bank's clients supported the absorption of additional information, as the design of the customer feedback studies for the eConta project could be based on already existing expertise. For example, by incorporating the knowledge gained via a prior study of the consumer insight department, a novel study was designed. *"All this was because Consumer Insight launched a project which was called project Giga ... in November, December last year [2008]. Hence Consumer Insight launched this project which was called project Giga in order to know what would be the needs of SME's with respect to the bank and hence we told them "Listen, as you are doing this important study, would it be o for you, that you would include VirtualDOC, Tepresento, and Econta inside of this study? They told us ok we will ask about your businesses but that you know that there will not be in-depth interviews [for your inquiry] because the whole study is for us and is different, but we will do you this favor. And ... the results of Giga created a chaos and we saw that it was a necessity [to] do a brutal repositioning, a new positioning and with the knowledge which they brought us, we did a small study only for Econta."* (Project leader, eConta)

Yet, although these new areas of expertise inside the bank were observed to have been beneficial to the overall ability of the bank to become knowledgeable about novel technologies and markets, the Tucuentas project benefitted also from traditional expertise areas of the bank. Here the department of "Commercial Intelligence", a department dedicated to the management of internally generated client data, got involved in evaluating and integrating specific recommendation logics, developed originally by Strands.com. The commercial intelligence department, which had the identification of cross-selling and recommendation opportunities as a core task, revised the algorithms proposed by Strands.com. As was described already elsewhere, Strands had developed its logic based on the assumption that no prior customer information would exist and hence the analysis of cross-selling recommendation was designed to start with first data collected after the launch of the service. Here, the commercial intelligence department revised Strands' approach and added the possibility to take advantage of the large amount of already existing customer data, residing in the bank account

databases of BBVA. Hence, not only prior knowledge out of the newly created technology areas supported Tucuentas, but also rather traditional expertise fields of the bank served as a facilitator to transform externally gained knowledge (in this case Strands' recommendation logic) in order to become optimally applied in the service development. *"The algorithms which they used ... , I believe are not adequate for the financial sector. The focus which they gave [to it] was different, in retail business it could work, our [business] is very different and I believe...they based [their algorithms] in regression trees which learn with time. But this is a situation where you do not know anything about the client what they buy...well these models learn with the time. In the financial sector we start from an enormous amount of client data. And therefore they were not adequate. Well, notwithstanding the significant errors we started the change."* (Head of Commercial Intelligence department, 012:020)

Hence, all in all, prior knowledge was very important for the development of both innovation projects. Yet, the Tucuentas project benefitted from a broad set of prior knowledge spanning the traditional and recently added expertise areas of BBVA. In the Onlinebusiness project, absorption benefitted most from the specific knowledge and concrete prior customer experience residing within the consumer insight department.

5.4.4 Cross-Boundary Expertise

As has been described in earlier chapters already, previously existing expertise supported the absorption of external information in both innovation projects. In addition to the knowledge residing in these areas, also the interconnectedness and certain degrees of expertise overlap between the different areas involved in the projects facilitated the absorption of external information to a certain degree. As regards the Tucuentas project, here data indicates that the overlap of certain degrees of general technical expertise of the project leader with the knowledge residing within Business partners department, facilitated the exchange of information. In particular in the transformation of the priority acquired external information into applicable internal knowledge, this overlap of expertise acted as a facilitator. *"Although we [project managers within the centre for innovation] are business people, meaning that we know about the strategy etc, we are persons who have a sufficient background in technology, in order to understand the necessities. Hence we are capable of really working directly and closely with, we work, and we maintain daily communication with these teams [Business partners, other technical departments]."* (Project Leader, 130:131)

In addition, also certain overlaps between the expertise residing within the innovation center and the consumer insight department supported the communication and flow of information during the absorption of market knowledge. In particular, the centre for innovation employed an expert who supported the innovation project managers in marketing related tasks. Originally, this expert inside the innovation centre focused on supporting the different start-up businesses regarding their marketing strategies. *“These firms sometimes do not have a marketing director or do not have a marketing department. Therefore I am here to support them a little bit. I accompany them a bit. ... Depending on the [start-up] firm each one has a different need some for example want to launch a new product and they need a person who guides them how to launch the new product, like where to put advertisements...”* (Marketing expert, 113:115) Yet it was observed that this marketing manager, who was located within the same area in which the project managers for the different innovation projects were positioned, supported also these project managers in their need for latest market knowledge. In more detail, it was observed, that in phases in which the project managers needed insights about potential customer or future markets, this marketing manager inside the centre for innovation supported the project manager in communicating with the expert department “consumer insight”. The following quote of this expert exemplifies her involvement within the information requests made to the consumer insight department. *“What happened was that we saw the need to ... make a study where we could see the needs and the status-quo of the SME sector in Spain.. Hence we contacted consumer insight that they look for us a little bit into that topic and they made us a concrete study about econta, ... they provided us with conclusions which I can show to you and we can have a look at it....”* (Marketing Manager, 189:191)

All in all, a certain overlap of expertise areas was observed among the areas involved in the absorption of external market and technical knowledge. Regarding the eConta Premium development, especially the market-expertise overlap supported the collaboration of the specialized consumer insight department with the innovation project manager. Here concrete experience of the marketing expert in the Innovation Centre was used during the collaboration with the expert department in order to design the customer inquiry and feedback studies. As no technical knowledge was actively absorbed in the eConta project, the facilitating role of an overlap of technical expertise of innovation project leaders and the business partner department was only observed to having supported the absorption of technical knowledge in the Tucuentas project. Due to the general support, the marketing manager inside the centre for innovation was providing to all existing innovation projects, its supportive role may have facilitated also the Tucuentas project, although no direct observation could be reported for this case.

5.4.5 Intellectual Property rights

Within the innovation projects of tucentas and eConta Premium the lack of protection mechanisms did not negatively influence the absorption of external information. In services due to a lack of protection possibilities, the danger of copying one's own innovations is a relevant threat and because of this, pre-market tests take place to a lesser extent than for innovations in technological innovations (Djellal & Gallouj, 2001) Reasons for this can be found in the lack of protection of the service idea (Mendonca et al., 2004) Through pre-market tests, competitors would receive the opportunity to get sight of novel service concepts even before the service was launched to the market, leading to early imitation (Djellal & Gallouj, 2001). At BBVA, however, service testing was conducted to a considerable extent particularly for the tucentas project. As data indicated, the threat of imitation by competitors was regarded as not urgent. Reasons for this were the considerable investments made in technology which were regarded as sufficiently shielding the firm from too-early imitation by competitors. *"Well I think if they have the intention to copy, I do not know whether this is going to be possible because this project needed a very large investment"* (Project leader, 208:208)

Hence, some evidence exists, that tucentas, due to its considerable investment in technology, was considered to be shielded to a certain degree from imitation. Hence this investment helped balancing the low protection mechanisms in the service sector. In consequence, due to this investment and the increased protection against imitation, pre-market tests as a way to acquire external knowledge from customers about the new tucentas service became possible. *"From there in that sense what we did was that the application was opened to specific journalists and five hundred beta-testers These could operate with the application and could provide us with feedback. Starting from there we were also interested in knowing their impression. At the time when the people provided us with feedback, we did changes and corrections in the application on the basis of that information which we got.* (Project leader, 074:074). This perception of the protection effect of technology investments was also identified in an interview with a marketing executive of the centre for innovation: *"In order to develop certain products, we needed a strategic partner which has been Strands and as a matter of fact it's not that we sign an agreement or contract, but BBVA purchased 25% stake, which gives us two opportunities. One is one of our daughters, our daughters company doing the business and somehow we are keeping control, [and] we are*

somehow building up our rear against our competitors to do the same - so that is why I called this partnership as strategic.” (Marketing expert, 051:052)

In a similar vein, also expertise in order to create eConta premium through the partial acquisition of the eConta start up was created. The possibility to adopt a service concept from a different sector and subsequently integrating it in the banking business model was regarded as an opportunity. This investment indicated that BBVA created in-house expertise in order to benefit from already existing service concepts, in this case accounting services, which could be adopted easily due to the lack of protection mechanisms. Hence the spillovers of service ideas from other service sectors served as a motivator for BBVA to invest in new expertise areas which, in consequence, allowed the bank to acquire, understand, and apply these externally sourced service concepts.

In general, the low appropriation mechanisms in the service sector seemed to have at least not deteriorated the willingness of BBVA to invest in additional expertise areas in order to increase its absorptive capacity. As has become evident already in the description of prior knowledge, in recent years the bank even decided to make considerable investments to extend its market expertise also to non-banking contexts. *There are like two or three certain kinds of consultancies, you go to CapGemini you go to Deloitte, you go to Deloitte, or whatever. In terms of market research we will go to Millward Brown. The thing is that we noticed that we were going to purchase information from Millward Brown and it was the same information that is being purchased by BBVA, Coca Cola, Procter and Gamble, Unilever, Banko Santander So they are very good providing that information they provide, but how are you going to distinguish yourself if you are using the same information. So probably we were feeling the need that we were needing extra information, so more accurate and precise information and they could do it for us, a tailor suit for us, but what if they later provide that service to any other bank, maybe in Spain, maybe globally. So we say okay, why don't we develop our own consumer insight unit. (Marketing expert, centre for innovation, 211:212)*

In addition, technology monitoring departments were created in order to become capable to respond to latest trends and opportunities in technology. *“This area is a business unit called “nuevos negocios digitales”. Although this area has been created - has been working for the past five years this area which was started two years ago and what basically they did is to develop some of these new ideas and some digital business, one here, one there [and] take [it] then to a region where they can manage and coordinate it. (Marketing Manager, Centre for Innovation, 187:188) “And the*

technology needs to have a different focus; we have an area of innovation technology and there exists an area which is the “observatory”. The observatory has the title “radar” and what they do is to ascertain continuously what technology could have a future, some type of impact in our business. From there they develop new solutions but grounded in new technologies...technology is not only a mere supporter, it has converted also in a fundamental driver for innovation” (Head of Centre for Innovation, 031:033) Hence, despite low the appropriation mechanisms in services, BBVA invested heavily in their absorptive capacity.

5.4.6 Power Relations

Power Relations, i.e. “relationships that involve the use of power and other resources by an actor to obtain his or her preferred goal” (Pfeffer, 1981), were also observed to having influenced the absorption of external information in both projects. Here, the decision of the board of directors of BBVA served as a first impulse. More specifically, the bank defined that future innovation activities should be focussed on emerging customer needs based on latest technological options. Based upon this basic direction, the idea for an online personal finance managers (tucuentas) and an online accounting service provider emerged, which subsequently led to the absorption of external knowledge in order to become capable of developing such services. *“The rationale which lies behind the acquisition of Econta, or the purchase of 70% of Econta, which is what was purchased, is based upon the innovation strategy which was initiated in 2006 more or less. This strategy basically has two pillars. These were the two pillars which we understand as being critical in the banking business which are the client and the technology*

(Project leader, Econta, 044:058) Similarly the project leader of tucuentas indicated: *“All started approximately three years ago with an ambitious innovation plan launched by BBVA. And in this plan basically they established general guidelines in which the bank defined a series of objectives. Within these, tucuentas is only one part of these, and therefore we searched for a company which could develop somehow software and which would be aligned with the initiatives.”* (project leader, tucuentas, 006:008)

Besides the general power relations of the senior management which influenced the direction and type of knowledge sourced from the outside, also the head of innovation within BBVA influenced the direction of knowledge absorption through his constant evaluation of the different innovation projects. Only because of his consent and conviction of the benevolence of the econta and tucuentas service concepts, the acquisition of the knowledge residing in the start-up firms was granted. *“When*

we think that BBVA needs to generate a new application....we say, Manuel [head of innovation] did you think about whether it would not make sense to create such an innovation and so forth.” (Head of new payment technologies department inside centre for innovation, 079:079)

5.4.7 Characteristics of External Information

As regards the characteristics of the information sourced within the two innovation projects, the available information was rather unambiguous and could be integrated into the innovation projects more easily as was observed for example in the Wohnriester project of BankPro. As regards the technical absorption, mostly software-technology or at least outlines for the realization of new technical features were sourced from the outside. This information was rather complex and implicit and could only be transformed by IT-experts within BBVA, in order to be integrated in the overall service development activities. *“Normally what we do, at least in this case, what I hope is that the project manager does not have the need to know the technical solution, nevertheless sometimes I have to translate and explain a series of things, help him in a problem, because at the end there exists a problem which me and you are capable of understanding as orderly technicians, in a way he does not understand.”* (Head of Business Partner Department, 088:089) This quote exemplifies that the sourced information contained implicit elements which were only understandable to some of BBVA’s internal experts. These needed to make these implicit components explicit to the other “non-experts”.

Yet, notwithstanding the complexity and implicit nature of the technical information, which necessitated transformation by experts in order to apply the knowledge in the service development activities, the information was rather unambiguous. This is derived from the fact that the technical information had a clear meaning to the experts and could be understood and evaluated by the technical experts to a full extend. For example, the commercial intelligence department received from Strands.com a technical solution for a recommendation mechanism inside the tucentas application. As this constituted a distinct part of the larger service software application, the commercial insight department could directly interpret whether it fulfilled its function for the service in an appropriate way or whether it did not fulfill its function. *“The algorithms which they used, I believe are not adequate for the financial sector. The focus which they gave [to it] was different, in retail business it could work, but our [business] is very different and I believe...they based [their algorithms] in regression trees which learn with time. But this is a situation where you do not know anything about the client what they buy...well these models learn with the time. In the*

financial sector we start from an enormous amount of client data. And therefore they were not adequate..." (Head of Commercial Intelligence department, 012:020)

Besides this example, also the other instances of technical knowledge absorption showed low degrees of ambiguity, i.e. the possibility of interpreting an expression in two or more distinct ways.¹⁰ Hence while the technical knowledge sourced in the tucuentas project was complex in nature, meaning that it consisted out of many different interwoven elements (the term complex implies a combination of many associated parts),¹¹ no multiple ways of interpretation of the same information was observed to be present for the technical information.

In turn, the market knowledge absorbed in both the tucuentas and the eConta project similarly showed certain degrees of complexity and implicitness. Feedback sourced from clients or market research studies always necessitated the translation of the implicit statements of the clients and the complex findings (caused by multiple items per question) into general business terms in order to be understandable by non-experts. Hence, while this information was rather unambiguous, as it could be readily interpreted by the market research experts, the complexity and implicitness of the information was so high, that only experts could make sense out of it. *Sometimes, in order to make the correct interpretation from it [market research data], you have to know the context, the methodology and sometimes, that happens also a lot, the [market research] supplier provides data or facts, and in these cases we have to do an extra work. ... There exists an internal document where the key-findings are extracted, so that it becomes clear, because normally the presentations [of the data supplier] are hundred slides. Firstly, this is not operable for a manager, because he has no time to read all that....and I believe some things are not easy to interpret and through discussion [with the data supplier] we can read all the data properly.*

(Manager Consumer Insight, 130:130)

As market knowledge was translated in both the econta Premium and the Tucuentas project by the consumer insight department, the degree of complexity and implicitness did not differ between the two projects.

¹⁰, (Collins English Dictionary – Complete and Unabridged 6th Edition 2003. © William Collins Sons & Co. Ltd 1979, 1986 © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003)

¹¹ The American Heritage® Dictionary of the English Language, Fourth Edition copyright ©2000 by Houghton Mifflin Company. Updated in 2009. Published by Houghton Mifflin Company.)

5.4.8 Firm Size

As BBVA listed at the time of data collection as the second largest Spanish bank and, measured in market capitalization, the seventh largest bank worldwide, BBVA had to be considered a very large organization. On the one hand, the large size of BBVA seemed to have facilitated the absorption activities related to both market and technology knowledge absorption. Here especially the considerable investments of BBVA in market and technology expertise offered the opportunity of absorbing external knowledge which was not directly linked to concrete innovation projects, but to establish sophisticated monitoring routines. In addition, due to this, certain resources could be dedicated to organize the firm's knowledge base and to align external knowledge acquisition with already existing knowledge inside the firm in order to increase to overall benefit of the newly gained insights. For example, BBVA created a position which was dedicated to improving the transparency and content of the available internal knowledge on topics related to market knowledge. Further, novel market monitoring studies were designed in a way which would fit those information collected in earlier years in order to allow for longitudinal studies of markets and customers. *“Somehow this is our task. Our task is also that we have time to do those things which these people normally have no time for because they are really into the business. They are very much concentrated on business and we have the time to introduce new methodologies. For example we have a large project about customer satisfaction, we introduced new metrics for controlling customer satisfaction, and our task is to implant these metrics actually in all markets and do to it every time exactly the same. I cannot analyze a market research [in one country], and try to really learn from it, if it is not identical in all markets. And in general this is our task. And one task here was that we all have the same metrics, that all do the same research. And another task was also to share the information and to try that this information is available for the people in BBVA. All our know-how has to be available to the people which really need this information. ... One of the tools which we have is a portal, an internal portal which is my virtual child.”* (Market research expert, consumer insight, 098:101)

Also, regarding technical knowledge the bank had the sufficient resources in order to support the identification and use of already existing in-house expertise. Here, specific positions were created which had as one of their major tasks, to search on other's behalf for experts in specific knowledge domains. The head of Business Partners described it as follows. *“When you have a [system] conflict, how do I succeed in connecting this system on a process level, you search for a person*

normally inside the bank and you talk to him, also there exist channels where the overall knowledge of the bank is managed. There exists a person we talk to about this, like listen can you help me doing this and this person distributes this project. He searches for the person which could help you and many times is hand over to you so that you can interact directly with him. ... If you do not know the person you say, I need to do this project, I need this, he searches these persons, makes a meeting..." (Head of Business Partners, 075:078)

On the other hand, although sufficient resources were available which made it possible to support knowledge identification in-house and outside the firm, the size of BBVA was also reported as inhibiting to a certain extent the fast application of newly gained insights or ideas. *"Logically, you are working in a very large firm, therefore many times you want to move quickly but the machinery goes a little bit slower than you. Therefore it is very important, I believe, that we are doing well, but many times this creates a lot of stress, and effort because you have to advance..."* (Marketing expert, 289:290). As the implementation of eConta Premium was performed outside the firm's boundaries of BBVA, this negative effect was only relevant for TuCuentas.

All in all, the large firm size of BBVA created certain amount of slack which was used to better align certain knowledge acquisition activities with already existing knowledge. Yet, although these positive effects were observed, the large structures of the bank also slowed down the application of newly gained insight, as innovation activities sometimes were hindered due to the complexity and formality of certain areas of the bank. Both projects presented earlier, however, have rather been facilitated by the firm size. Both projects benefited from the possibility to access existing resources in order to acquire detailed information about market trends or customer opinions on their service features. Further, as BBVA had dedicated large amounts of resources to their innovation program, sufficient financial resources were available to acquire certain stakes of the start-up companies Strands.com and eConta. This partial purchase opened the expertise residing within the two young firms without which the projects reported here would not have been possible to develop.

5.4.9 Mindset

As regards the mindset towards change of those organization members who were observed to be involved in the development activities of the Tucuentas and eConta Premium services, in particular in the radical project of Tucuentas, an awareness of the novelty and its consequences facilitated the

overall development of this innovation. More precisely, the organization members' involved in the development of Tucuentas showed awareness for the need to steadily look outside for new information and seemed to be aware of the fact that their current expertise areas and knowledge about the new service would not suffice in order to successfully accomplish the development activities. Due to this awareness, support by an external partner was more than welcome, as the project leader argued: *“Strands has knowledge of recommendation [logics] and social media which we consider to exist only in very view firms. And exactly because of this we were interested that they could freely develop their projects and we could benefit from their ideas which they created. Hence from there we thought that Strands is very beneficial exactly because of their characteristic idiosyncrasy. They provide a differentiated value in contrast to other companies...”* (Head of Tucuentas project, 206:206)

In fact, project members engaged in constant scanning and monitoring of potential market and technology changes as they seemed to be aware that the Tucuentas service was going to be positioned in a fast changing environment which needed close attention. *“During these 10 months we were constantly monitoring the applications of the competitors”* (Project leader, 126:127)

In addition, a general sensibility of future changes to the banking industry existed which created additional support for being vigilant and maintain an outward looking mindset within the tucuentas projects. *“We believe that the industry is going to be totally different. We believe that there are going to be inconvenient [changes] which will be appearing. It is already happening in a very small scale but remember digitalization is changing the world, whatever, whatever, whatever can be digitalized is already or it's gonna be digital. Remember what happens with the music industry, digitalization comes, and they have almost disappeared . And with the Photo Industry Nikon, Kodak. Because they didn't see the power of digitalization, Encyclopedia, think about Encyclopedia. So life in finance is going to be different it may happen to us we have to be ready for that the same as p2p lending will...we have to be ready to be monitoring very closely.”* (Marketing expert, Centre for Innovation, 133:147)

Although such general awareness potentially facilitated more than only the Tucuentas project, in the eConta Premium development, such openness for change among involved members seemed to not play such a facilitating role as in the Tucuentas projects. This was observed to be due to the considerably lower degree of newness and a correspondingly lower novelty of the needed information. As the project leader argued, development tasks were considered being rather routine

activities which did not even demand a detailed project management. *“In fact, there was not project management with all task definitions and dates”* (Project leader, 431:431)

5.5 Summary of Findings: BBVA

5.5.1 TuCuentas

Within the tucuentas project, both market and technical information absorption were highly present. This was mainly due to the fact that Tucuentas constituted a truly novel service which was assessed on the basis of available data as having constituted a radical service innovation. More precisely, all three service dimensions showed high amounts of novel elements and also analysis by external experts buttressed the researchers' own assessment. Besides this considerable degree of newness involved in the development of the Tucuentas service, the project and market success were also very high. Both the time to market of the new service as well as an unexpectedly high market resonance were accomplished.

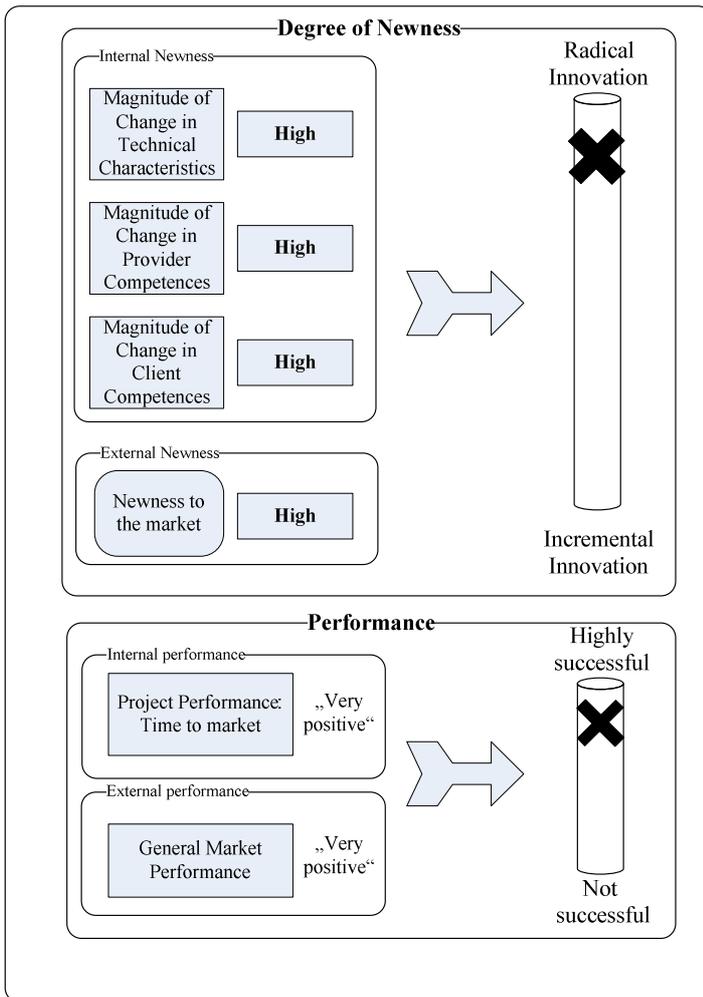


Exhibit 54: Degree of Newness & Performance Tucuentas

As regards the identified absorption processes, distinct patterns crystallized from the data for technical and market related absorption activities. The absorption of technical information followed a five phase process comprising the recognizing of the value of external information, acquisition, transformation of the internal expertise areas in order to understand the externally sourced information, transformation of the external information in order to fit it to the internal development project, and finally its application in the development activities for Tucuentas. Besides these five phases, multiple iterations of the process were identified during the development of the new service. Also, single phases were performed in parallel and hence overlapped considerably. As regards market related absorption activities, here also an iterative process with parallel phases was observed, yet no transformation of the internal knowledge base was visible during the development project. Further, the absorption process for market and technical information benefited both from being inter-connected, as by taking market information into consideration for technical absorption

and vice versa, this improved the overall quality and relevance of the respective information absorption.

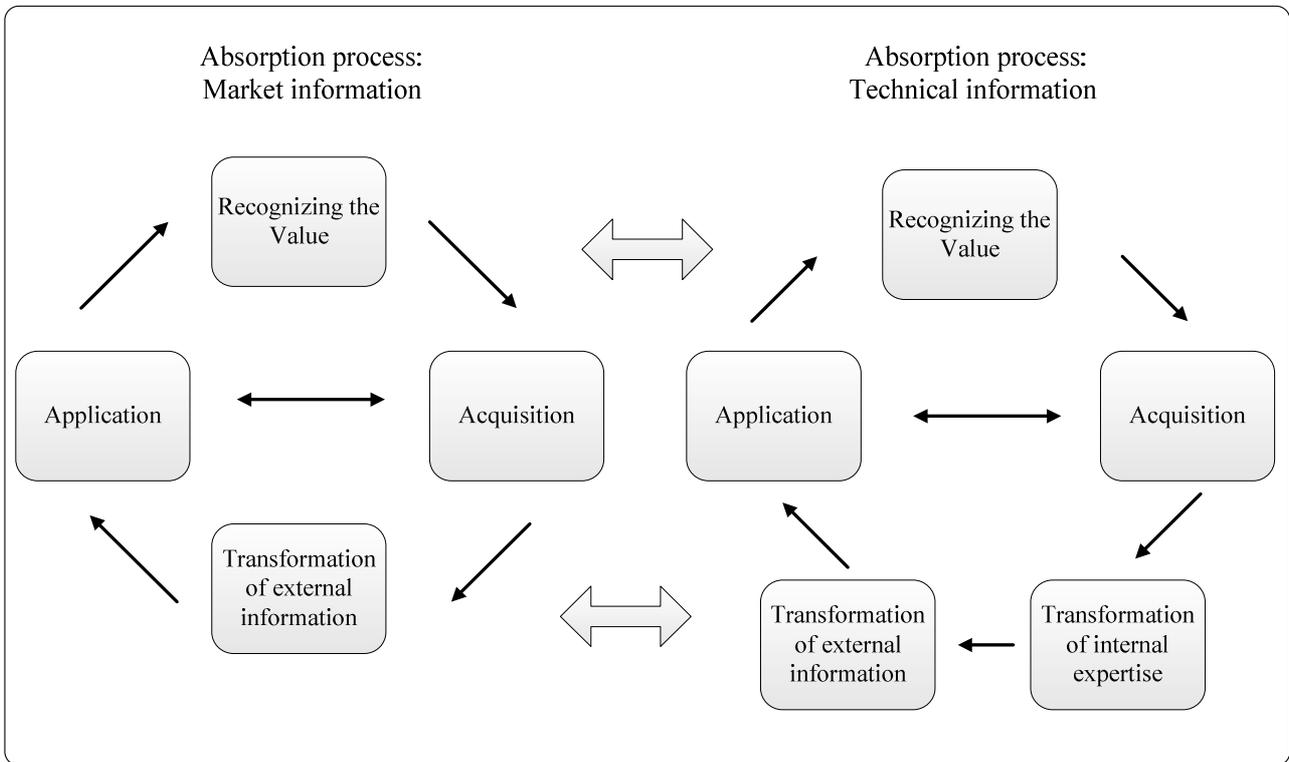


Exhibit 55: Absorption processes Tucuentas

Regarding the second sub-research question of how the ACAP process would relate to the general service innovation process, here also several findings were made. It was observed that the general innovation process was of a highly dynamic nature and iterated several times over the time span of the project. The ACAP process followed this movement of the general innovation process and also could be described as a cycle of activities. Hence both the ACAP and the general innovation process were iterating several times. In addition, the ACAP process paralleled the activities of the innovation process. In more detail, the early phases of the ACAP process were performed during the early phases of the innovation process and the later ACAP phases could be observed also during the later phases of the innovation process. When new information was recognized which affected the service concept, the innovation and the absorption process performed a new cycle in order to incorporate the newly gained external technical or market information into the service concept. Thereby, in general both the market and the technical absorption activities did not show different

patterns but showed both similar degrees of parallelism and iterations with regard to the general innovation process. The following exhibit visualizes these observations.

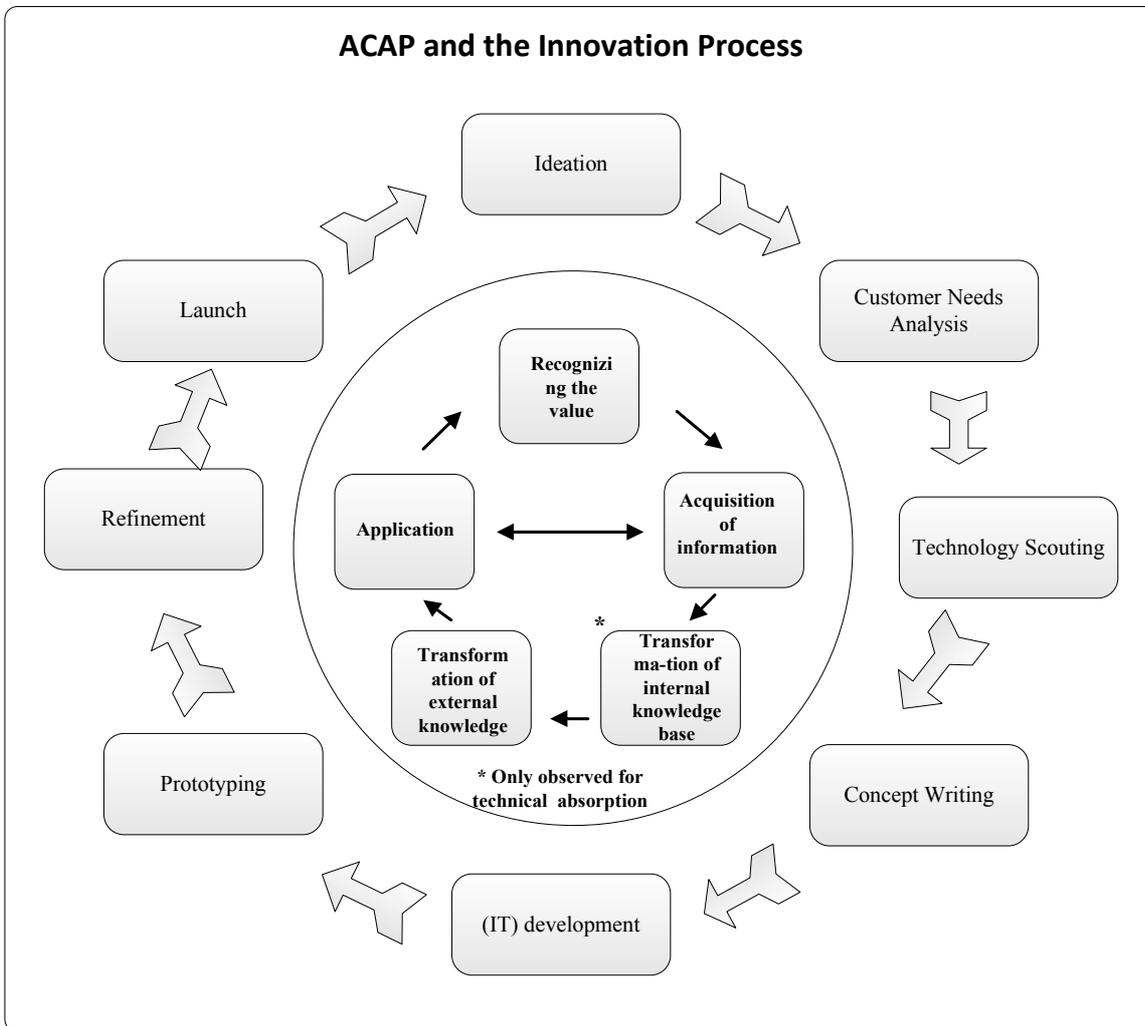


Exhibit 56: ACAP and the Innovation Process (TuCuentas)

5.5.2 eConta Premium

In the eConta project, predominantly market related absorption activities were observed, and only little external learning from externally sourced technical information. After the different service dimensions of the new service were assessed, the degree of newness of eConta Premium paralleled the characteristics of rather incremental service innovations, as in the technical characteristics, service provider and client competences only few novel elements were introduced, compared to the already existing services of the firm. Besides the assessment of the degree of newness, the success of the project was rather positive, as the time to market goals were accomplished, while the market performance could not be assessed in detail due to the recent launch date.

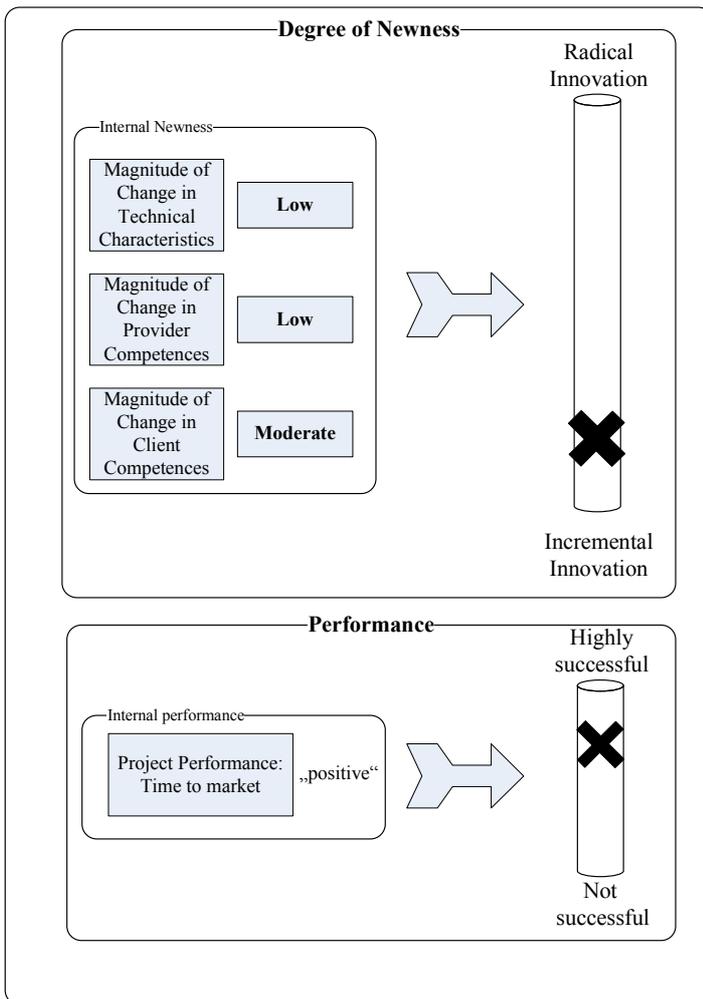


Exhibit 57: Degree of Newness & Performance eConta Premium

The observed absorption process was identified only for market related information. Similar to other identified processes, four phases were identified, namely the recognition of the value phase, the acquisition phase, the transformation of external information phase, and the application phase. While some iterations of the absorption process were observed, these took place in separate points in time after the first cycle was already accomplished. Hence, no parallel absorption activities were observed during the eConta Premium project.

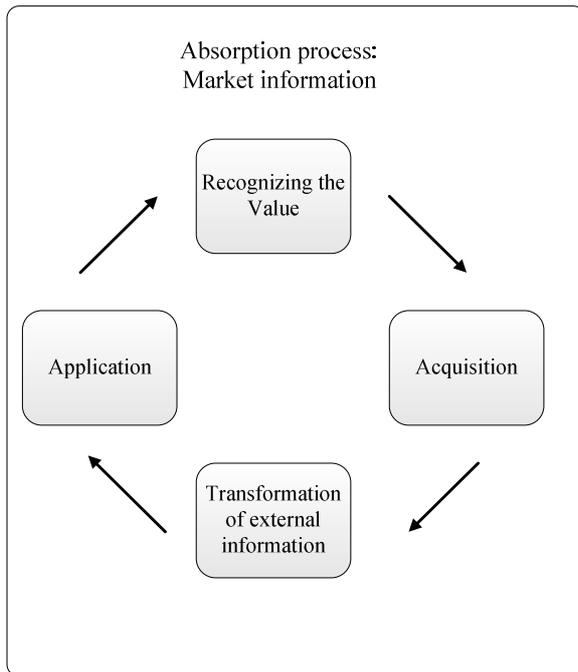


Exhibit 58: Absorption Process for Market Information eConta Premium

Regarding the innovation process and its relation with the ACAP process, similar degrees of parallelism between these two processes were identified when compared to the TuCuentas project. Different from the TuCuentas project, the innovation process of the eContra Premium project did not show iterations. Rather it could be described as a linear procedure. This linear development process was paralleled by the ACAP process, which however performed some iterations towards the end of the innovation process. After having prototyped the new service, additional customer feedback was sourced. This constituted a full cycle of market related absorption. Yet, due to the fact that this iteration did result in a confirmation of the priority designed service concept, such iteration had no consequences for the general innovation process. The pursuit of the ACAP and innovation processes is shown in the next exhibit.

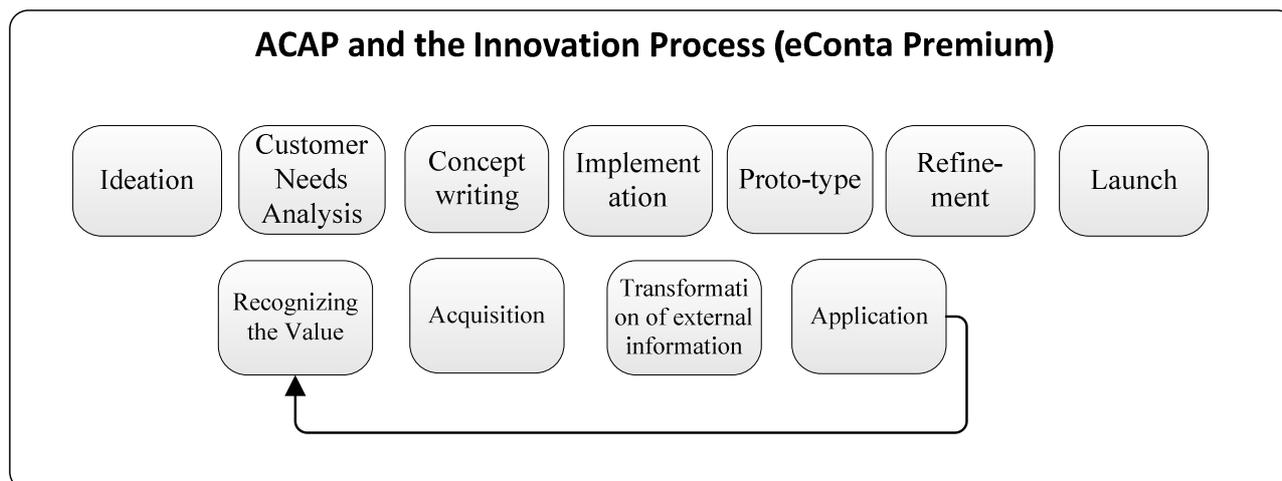


Exhibit 59: ACAP and the Innovation Process (eConta Premium)

5.5.3 Facilitators and Inhibitors

In both, the tucentas and the eConta Premium innovations, absorption activities were rather facilitated by several factors and only little evidence for inhibiting factors were identified. More specifically, the available **network** of external information sources positively influenced the absorption of external information particularly for the tucentas project. Here, the breadth of the network was helpful, while for the eConta project also some personal contacts facilitated absorption yet these were not of the same relevance as it was observed for the tucentas project. The trustful relationship, established via partial acquisition of the main external partners, further was observed to having facilitated both the absorption during the eConta and Tucentas project.

Powerful actors, mostly inside the bank supported the absorption of external information in both projects, as they freed up internal resources needed for the absorption activities. Likewise the **cross-boundary expertise** of project members facilitated the absorption in eConta and Tucentas. Yet, in the tucentas project, such expertise-overlap of the project members needed to exist with regard to both market and technical areas, while for the eConta project, only market related cross boundary expertise was observed.

Prior knowledge residing within the bank also facilitated absorption activities for both tucentas and the eConta project, yet in different ways. For the Tucentas project the breadth of existing expertise inside BBVA was important, while the absorption activities for eConta benefitted most

from “hard facts” about already known customer preferences residing within the consumer insight department.

Regarding the **nature of the external information**, here the rather low ambiguity of external information in both projects supported the absorption activities, as barely more than one way to interpret the absorbed information existed. This reduced labour intensity of the absorption process. Regarding the degree of implicitness and complexity of the sourced information, here particularly customer information was in both projects rather implicit as the customers inquiries needed to be interpreted first, before these could be used for the development work. Technical information was sourced only in the tucuentas project and the degree of implicitness of this information also was relatively high. For example, the delivered service-parts made by Strands.com needed to be analyzed and interpreted by BBVA in order to be understood and apply them to the further development activities. This reduced the ease of absorption particularly for the tucuentas projects, as for the eConta project no technical information was absorbed. Overall the nature of the external information rather inhibited the absorption in the tucuentas project while this was not the case to the same degree in the eConta project.

The **size** of BBVA was identified as positively influencing most of the absorption phases, yet during application the at times bureaucratic structures inhibited a fast implementation of the externally gained insights during the radical tucuentas projects. The lack of **protection mechanisms** for service innovations supported partially the availability of information for both projects and was not identified as obstructing the absorption activities, as it was the case in other cases presented here. This was mostly due to the fact that eConta and Tucuentas had invested in know-how and technology which was perceived by the project members as being difficult to imitate, thus increasing the willingness to risk a partial lurking out of information to competitors via the testing of the novel services with selected customers.

Cross boundary expertise supported absorption in both projects, while **social integration mechanisms** were identified as having been important facilitators for the absorption during Tucuentas. For the incremental eConta development, these sharing mechanisms were not of utmost importance and did not play such facilitating role, as during the eConta project less information needed to be shared, interpreted and discussed among project members. Similarly, it was observed that the **mindset** regarding the need to change and the awareness of the limitations of existing internal expertise facilitated particularly the absorption during the Tucuentas project, while such a

mindset for change was not observed as being strongly present in the eConta Premium project and thus had no facilitating effect for the absorption during this project. The following table summarizes these findings.

Facilitator / Inhibitor	Characteristics	Impact on absorption during Tucentas	Impact on absorption during eConta Premium
Prior Knowledge	Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge)	Facilitating: Breadth of prior Know-How & Know-About	Facilitating: In-Depth Customer Knowledge (databases)
Nature of external knowledge	Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data)	Facilitating: Low degree of ambiguity No effect: Rel. high degrees of complexity Inhibiting: Increased amount of implicit external information	Facilitating: Low degree of ambiguity No effect: Relatively high degrees of complexity No effect: Some implicit information, yet due to reduced amount no effect on absorption
Mindset	Appreciating external information (in contrast to „not Invented here syndrome) Being aware of the need to adapt	Facilitating: Awareness of radicalness made project members receptive for changes and made them accept new external insights	No effect: No specific attitude of mindset of project members was observed as project was rather perceived as „daily work“
Social Integration Mechanisms	Structures supporting the sharing and interconnectedness of different internal expertise areas	Facilitating: Through established knowledge sharing infrastructure, absorption related collaboration and communication was facilitated	No effect: As reduced amounts of information were shared and due to reduced iterations of the absorption process, social integration mechanisms were not of utmost importance
Cross Boundary Expertise	Complementary functions within the organization ought to be intermeshed redundancy in expertise	Facilitating: Expertise overlap of the members across a broad set of disciplines supported understanding and communication during absorption	Facilitating: Overlap between marketing and innovation department supported acquisition, transformation & application of external information
Power Relations	Relationships involving the use of power and other resources by an actor to obtain his preferred goal	Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information	Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information
Network of external partners	Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship	Facilitating: Broad set of external ties, high quality of relationships, and some overlap of the external partner's expertise with the banks expertise allowed for more complete information access and understanding	Some facilitating effect: Quality of Relationship, overlap with existing expertise
Firm Size	Number of employees , market position in relation to competitors	Facilitating & Inhibiting: Large amount of available internal expertise & resources facilitated acquisition and transformation, while complexity of routines inhibited application	Facilitating: Large amount of available internal expertise & resources facilitated acquisition and transformation, proximity to internal expertise & limited scope of absorbed information facilitated also application
Intellectual Property Rights	Low degree of protection mechanisms available to shield service innovation from imitation	No effect: As service was (perceived) to be difficult to imitate, no restrictions in opening the innovation to customers or partners were observed.	No effect: As service was (perceived) to be difficult to imitate, no restrictions in opening the innovation to customers or partners were observed.

Exhibit 60: Facilitators & Inhibitors BBVA

6 Case Study Report III: BankXY

6.1 Context of the Study

6.1.1 Description of the Case Study Organization

BankXY is a medium sized, German retail bank which was founded as an institution in the 1950ies. After a re-branding of the bank in the late 1990ies, BankXY merged with two other medium sized retail banks. This re-orientation of the bank, also led to new market focus, and BankXY narrowed its market focus from a classic retail bank, to a specialized retail bank, focussed on end consumer loans. In order to buttress their new focus, the bank moved away from a classic branch-structure and opened smaller “shops” in Germany which should create a novel type of banking-experience to the consumer. After a second re-branding in the 2000s, the bank expanded its business from Germany to other German-Speaking countries. In 2009, the bank employed more than 1200 employees of which 60% worked in sales in BankXY’s shops, while 40% of the employees are working within the headquarters of BankXY. The total assets of BankXY amounted in 2008 to more than 5 billion EUR, while the number of customers grew over half a million. BankXY is a subsidiary, yet autonomous company of BankHead, a large in Frankfurt based bank. The here reported service innovation activity focussed on an initiative of the bank to broaden its up to now rather narrow service portfolio by offering a novel type of financial service which combined a credit card with a newly designed type of end customer loans.

6.1.2 External Context

The context of BankXY was shaped by traditionally high regulatory influences by national and European governing institutions such as the German financial regulations body “BaFin” or Europe-wide regulations issued by the European Union. Within the here presented Inno-Card project, regulatory aspects were most relevant especially in the design of the service delivery process, as the European Union issued in the recent past a series of changes in the way, loan-contracts had to be explained and sold to customers. Here, the legal department needed to take additional aspects into consideration. *“For example if you think about offering the card on the internet. Then for the Internet sales process, different prerequisites have to be taken into consideration. For example, the customer has to be provided with pre-contractual information about the card.”* (Lawyer, 012:013)

Regarding the competitive situation of the bank, the bank was aware that its core products focused on end consumer loans was facing considerable competition in the market, also because competition took place, according to the bank, to a large degree based on quantitative aspects of the loan, such as the level of the interest rate, duration of payments, etc. *“There are things which are easy to copy. As regards interest rates we noticed that this everyone is doing. That changed then into a jungle of special conditions for specific customer segments. There everyone noticed that it becomes difficult to compete on the basis of prices.”* (Head of product management department, 011:012). As a response to the more and more exchangeable characteristics of existing end-consumer loans, BankXY decided to broaden its current service portfolio and started the here presented Inno-Card project. *“In general we have to say that, independently from the crisis, that the consumer loan business is stagnating since four years. It does not fall, but it does not increase either.”*(Head of product management, 044:044) With the Inno-Card, BankXY strove for a considerable increase in the number of customers. *“The card has the purpose to generate more new-clients.”* (Head of product management, 016:016).

Finally, the financial crisis had only minor influence on the Inno-Card project and the general business of BankXY. For BankXY, the level of consumption of the German consumers played a significant role for the number of end-consumer loans sold. As the level of consumption remained, however, relatively stable for those investments for which BankXY offered their loans, no significant reduction of the overall volume of contracted end consumer loans was observed by the managers of the bank. This was also reflected in the annual report of the bank, in which a considerable growth of the customer base and the sales volume was reported for 2008 and 2009. *“Overall I would say, if you compare what can be read about the crisis and how the consumption behaves, then the consumption went down less than the media transports. The consumption in 2009 is not worse than in 2008. This we can see on the basis of our sales-figures.”* (Head of product management department, 044:044)

6.1.3 Internal Organization of New Service Development

At BankXY, service development was observed to be not highly institutionalized. Due to the rather narrow focus of BankXY’s service portfolio, and the limited size of the bank, no department or group existed which was continuously focussed on service development activities. Rather, new service development was pursuit on a project basis where product managers from the product management department acted as project leader. In addition, experts from affected areas such as

law, IT, marketing and sales joined the project. Yet, although different departments were subsumed under one project, their participation was not necessarily from start to end, but could be focussed on certain project phases where specific input from the respective department was needed. The initiation of a new service development project, thereby had to be started via a formal decision to be taken at the board of directors of the bank. Notwithstanding this formal consent to be achieved at the top-management of BankXY, no formal project reporting routines had been established within the bank. Rather, the project leader was asked to update middle management about the progress of his/her development project. The middle management decided on additional resources or time needed. In addition, due to the relatively small size of the bank, also direct contact between top management and the project manager tookplace, if needed, as the bank dedicated itself to a highly informally organized way of working. This became visible, for example, in BankXY's policy, to only use the first name of each employee / executive during work, in order to decrease the formal distance between the organization's members.

6.1.4 Observed Service Development Project

As within BankXY, only one service operated for several years, focusing on providing a special type of end-customer loans, senior management decided to extend their offering by introducing a credit card which combined classic credit card functions with a novel type of end consumer loan. This project constituted one of the first developments of new services within the bank, due to their prior focus on only one type of end-consumer loan.

The project was initiated through initiative of senior management and did not result out of changes within the broader context of the bank. Rather it was seen as an instrument to expand the bank's business scope. As becomes visible in the subsequent chapters, the project grew to a considerable challenge for the bank, as the change needed to be performed inside the organization in order to launch the service was considerably higher than expected. This was caused by an underestimation of the degree of newness of the service for the bank, as evaluated by senior management and project members. In consequence, the project had large delays and was introduced late in the market. The overall development started in mid-2007 with preliminary tasks to be accomplished, while the formal project started in January 2008, with an envisaged end date of November. While a preliminary version of the Inno-Card was introduced in the market with two months delay, the final version of the service also with respect to the internal procedures inside the bank was not finalized

until May 2009, amounting to a delay of more than 50% when compared to the estimated project duration.

6.2 Project I: Inno-Card

6.2.1 The Development Process of the “Inno-Card” Project

The observed service development project focused on the development of a new type of credit card, which combined a specific loan-type to the basic function of a credit card. The project was set up in two large phases, a pre-phase in which the new service should be (1) ideated and (2) designed and positioned against already existing credit card variations, and a second phase, in which the (3) actual development of the card as well as the (4) commercialization including the training of the sales force and the market launch were subsumed. The first phase started in the second half of 2007, in which senior management at BankXY tried to convince the parent organization of the credit card idea and to perform first ideation activities about the concept of the card. The concrete project formally started in January 2008 and was envisaged to be finished in November of the same year.

The formal project was subdivided into several sub-projects. Sub-project 1 concerned legal issues and external communication. Sub-project 2 comprised risk management, sub-project 3 process definitions and –tests. Subsumed under the roof of sub-project 4 was the IT-realization, focused on the changes to be made in the operating IT-system of BankXY and the sales support application. In sub-project 5, the training of the sales force and internal administrative staff constituted the main task. Here it has to be mentioned that many activities related to the administration of the financial product had to be done manually, in order to adhere to quality-regulations and to spot false information put into the contracts of the financial services of BankXY. Finally, subproject 6 concerned the marketing for the new service. While, related to the different characteristics of the new service, originally a new name was planned to be created, finally, budget did not allow for doing so, due to costs related to the marketing campaign and other communication necessary for creating awareness of a new brand. Consequently, the new service was named very similar to the most famous service of BANKXY. *“Sub-project 6 was marketing. Here people dealt with the name of the Inno-Card. Originally the Inno-Card should have received an independent name. This collapsed however with the brand management, because they discovered, that it would have become too expensive, to position in parallel to the strong “Consume-Credit” brand an additional name.* “ (Project Leader, 014:014)

During the development process for the Inno-Card service, a former product manager of BankXY was designated as project leader, who besides supervising the progress of the other sub-projects, was responsible for the sub-project 1, legal issues and external communication. Especially the external communication was crucial in the Inno-Card project. For several dimensions of the service concept, external support was necessary. As BankXY only had few experience with credit card operations, resulting on a focus on end-consumer loans in early 2000s. Existing experience with credit cards dated back to that time-period and hence was not applicable to the concrete design of the internal operations for the new service. Resulting from this lack of credit-card know how in the bank, also regarding the identification of market-related activities such as positioning of the card among other card-variants, analysis of market potential, and related aspects, BankXY needed to resort to external expertise. In order to learn about the operation of credit cards, BankXY resorted to a credit card operator which managed the data and information flows embodied in the credit card business for a large number of retail banks. As BankXY needed to perform certain tasks in-house, the external card processor consulted BankXY in incorporating the needed routines and technology. Further, an internationally leading market research and management consultancy, experienced in retail banking industries, took over market related tasks. *“Basically they were only involved in the pre-project, mostly because of political issues and because of know-how transfer in areas where this [expertise] was lacking. We do not have the expertise to identify, where a market between the boundaries of credit cards and consumer loans would exist.”* (project leader, 14:15)

Finally, for the printing of the credit cards, a third external partner was involved, yet with only minor, highly operational tasks.

On a timeline, after consent of the parent organization concerning the viability of the Inno-Card had been reached in the second half of 2007, the external market experts researched potential market segments of the new service, followed by an in-depth definition of the service concept in the first half of 2008. This definition phase lasted until mid-2008, succeeded by in-depth programming and implementation activities inside BankXY. The project was planned to be finished in November 2008. Due to considerable difficulties in the technical realization of the project, the complete accomplishment of the project was postponed to May 2009. However, due to a top-management decision, a first version of the Inno-Card had to be introduced into the market by February 2009, even though, several internal tasks for the operations of the service were not finished yet. *“2007 everything was a political dimension in order to be able to say “yes BankXY dare doing this”. The project work started on January 1st 2008. There firstly we asked ourselves which people do we need*

internally and which ones from external. Then the product was defined again in-depth. Until summer 2008 the product definition was conducted, changed then, however into in-depth development. The definition phase lasted more or less 4-5 months.” (Division head, 046:047)

All in all, in these two-folded structure of the general project, the activities can be meaningfully grouped into four generic innovation phases, as not formal innovation process was defined at BankXY. These were the ideation phase, where the general idea of the service was envisaged, the analysis phase where the basic and advanced characteristics of the service were designed, followed by the implementation of the service concept via software development and the creation of the necessary service infrastructure and personnel competences. Finally the commercialization activities constituted the last phase of this generic innovation process. This is shown in the next exhibit.

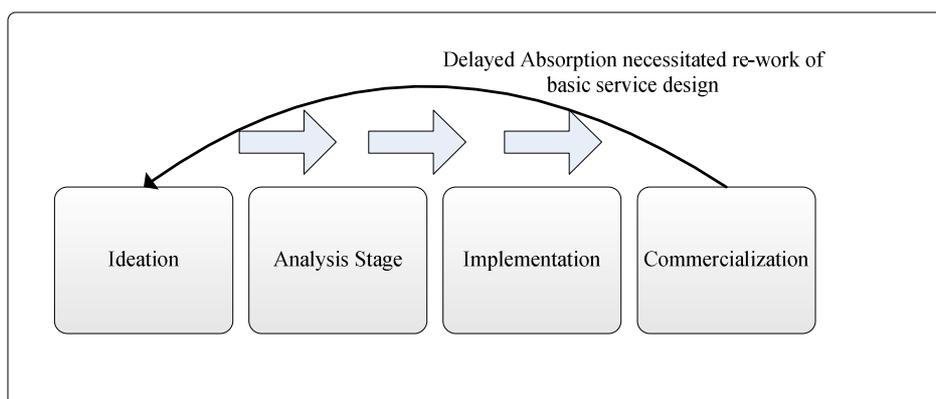


Exhibit 61: Innovation Process Inno-Card

6.2.2 Performance

As regards the performance evaluation of the Inno-Card project, an internal and an external perspective had to be taken into account. Firstly, data from interviews indicates that the internal performance of the project was rather poor. To begin with, the project was initiated by BankXY already several times in the past, yet due to internal political reasons, no consent with the mother organization could be reached. *“The basic idea is a little bit older, so four years ago. This sound long, but the project existed already three times. Yet it failed every time. The reasons were always of political nature.” (Head of division, 021:021)*

Project leader, project members, as well as senior management commented on the arising difficulties in the project which ultimately led to a considerable delay of the market launch. *“We had to notice that this project was not manageable in the given time-frame”* (Project leader, 009:009) As had been briefly indicated already further above, the original market launch date was envisaged for November 2008, yet the launch with only preliminary internal operations for the Inno-Card service was postponed to end of January, nearly three months later. *“Due to implementation problems, it came to delays of two months. Well, originally, the project should have been introduced already in November 2008.”* (Head of Division, 047:047) Yet, in fact, the project was not fully finalized until May 2009. This resulted from the fact that BankXY decided to introduce the Inno-Card with internal procedures still under development. The extra-work necessary to finalize the internal service related procedures demanded an additional three months time period. *“We want to finalize the card project in May. We want to hand over everything into the departments and to define responsibilities. At the moment it is the case that after the launch errors occur which have to be corrected first.”* (Head of product management, 026:027). In addition, the project leader commented in March 2009: *“The project is not yet finished. The errors are still too big.”* (Project leader, 012:012)

Hence, the internal performance of the Inno-Card project was not as was expected by senior management. Due to this the Inno-Card project in relation to the time-to-market has to be evaluated as not-successful, as defined milestones had not been reached.

As regards the market performance of the Inno-Card, only internal statements are available, as at the time of data collection the Inno-Card had been in the market for only two months. The project leader of the project mentioned: *“We did actually expect more”* (Project leader, 097:097). Yet, project members also mentioned that a correct assessment of the market performance of the card will depend on future expansion strategies in order to offer the credit card also in other banks and not only in the 50 shops of the bank, which was envisaged to take place at the end of 2009 or the beginning of 2010. Due to this, a final evaluation of the market performance was not possible at the end of data collection for this study. *“It will be profitable when it will be introduced in additional banks”* (Head of product development, 008:009)

Hence, all in all, the performance of the project measured in the time-to-market was not successful. The market performance could, due to data limitations not be finally assessed, yet comments on the financial performance at the time of data collection, two months after the service was launched into

the market indicate that expectation of the market performance were not fully satisfied. This evaluation is summarized in the following exhibit.

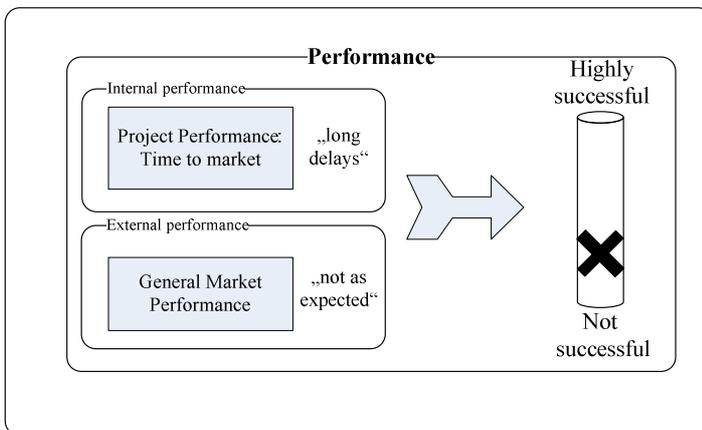


Exhibit 62: Performance Inno-Card

6.2.1 Degree of Newness

In line with the other case descriptions, also here Gallouj & Weinstein's (1997) approach to the assessment of the degree of newness of service innovations is applied. In general, the Inno-Card project was assessed by the project members and their supervisors as a completely new product. *"We only started with the idea. The rest we had to do in the project"* (Head of Division, 115:115). *"We did not create awareness on ourselves from the beginning, what it meant to develop such a product. That did not concern the commercialization only, but also the operational processes, which are being applied in relation with the card. It is totally different from the [already existing] loan."* (Head of product management, 022:022)

To start with the dimension of the technical characteristics of the Inno-Card, here several novel elements have been identified, when compared to the priority existing services of BankXY. In general, technical characteristics concerned, for example the calculation logics behind the financial services of the Bank. Here, considerable changes were necessary and new to the bank. *"We also have variants in our [existing service]. There are simple and complex variants. That depends on the scoring value the client has. These variants we introduced in the shops. However that was not such a radical change as it was the case for the card. That with the card was much more complex."* (Head of product management, 027:027) In addition to the calculation logics behind the new and existing services, also the internal back-office processes and documents for delivering the Inno-

Card service to the customer were completely new and could not be based on prior services. *“Compared to this [recently introduced variants of the core service of BankXY] Inno-Card is completely new. New processes, new interfaces with the processor, new documents and contracts.”* (Head of product management, 052:053) Hence, as regards the novelty of the technical characteristics, here many changes and new elements had to be performed inside the bank in order to launch the Inno-Card.

When taking a closer look at the service provider competences, meaning the change in the competences of the sales-personnel in order to deliver the actual service, here also considerable changes have been reported by the interviewees. As the Inno-Card constituted a completely new service-category for the bank, new training concepts and service delivery processes had to be designed and taught to the sales force in a series of training sessions. As the head of product development argued: *“We had to develop different training-concepts and these were trained between December and January. There it was explained how the product looks like, how the sales process looks like, what the value proposition of the product is, and how the input of the data in the system looks like. That was a huge time and money investment.”* (Head of product development, 052:053). In addition, similar comments were issued by further senior executives and sales experts. *“The new product needed to be explained. To do this the sales management department supported in this. We did not know either how to sell the product in the best way.”* (Head of division, 100:100) *“In general it can be said that it was difficult to contribute with our experience to the project. Neither did we know exactly how the product would work.”* (Marketing expert, 063:063) Hence, as the considerable need for training of the sales force shows, the provider competences changed considerably as BankXY’s sales force seemingly had no prior experience in selling a similar service to customers.

Likewise, in the customer competence dimension of the Inno-Card, changes were observable, too. Here, the credit card allowed clients to manage their cash flows more directly. More precisely clients were allowed to decide flexible the thresholds for using their credits on their bank account or to create a loan for their consumption. In an example this would allow the clients to define whether they would like to pay all amounts below e.g. 1000 EUR by using their credit on their bank account, while all spending with the Inno-Card above that threshold would be subsumed under a newly generated consumer loan. As in existing credit cards, this flexibility did not exist, the client-coproduction within the Inno-Card service delivery process was enhanced to a certain degree. *“Yes that is a completely new product. The channel is totally new to initiate an end-consumer loan via a*

credit card. Also in addition, the liquidity is manageably be the customer itself." (Project leader, 040:040) Hence, to a certain degree also the customer competences were changed, as the co-production role and the number of decisions to be taken by the customer himself increased.

All in all, in every service dimension of the Inno-Card, novel elements were introduced. Yet, before finally evaluating the degree of newness of this service innovation, it is useful to look outside the bank and to see as to how new the Inno-Card was perceived by externals. To start with, interviews revealed that both external expert organizations involved in the Inno-Card development, could not source all elements of their tasks from prior projects. Rather, both the market research firm and the card processor needed to learn by themselves about certain elements which they were not knowledgeable about. "*[the market research consultancy] knew the credit card business very well, but they did not knew the Inno-Card concept. That was very fascinating for [market research consultancy]*" (sales support expert, 015:015). Similar information was provided in relation to the degree of novelty of the project for the technical supplier, the card processor: "*For [card processor] for example the whole stoy about telephone based loan-booking [by the customer] was a completely new thing. There [card processor] did not understand the issue at the beginning.*" (Project leader, 061:062)

Finally, also an independent organization which monitored the credit card market and issued regular market reports structured the market for credit cards in a way, which may support the notion, that the degree of newness of the Inno-card is considerably high. In more detail the web-based institutions screened all variants of credit cards which existed in the year 2009. As a result this firm provided a table in which all credit card offerings were grouped into several credit card types. From eight cards included in this report, six cards were of the same type of at least one other card. Only two cards were grouped into unique card-types. The Inno-Card was one of these two cards which did not fit into the card-types of the other six.¹²

Hence, all in all, both the internally as well as the externally available information indicates, that the degree of newness of the Inno-Card project was high. While this innovation will not be positioned on the most extreme position of the "newness-continuum" as proposed by Gallouj & Weinstein (1997), it showed more novelty than incremental innovations would show according to these authors. This is because more than one internal dimension changed considerably. Yet, due to the

¹² Due to confidentiality this information may not be disclosed, as it would allow to trace back the studied organization. The table can be provided on request.

fact that not all elements of all three dimensions of the Inno-Card service were completely new, this innovation neither is purely radical. Nevertheless, due to the high degree of change in two dimensions of the service, as well as due to the external evaluations of the Inno-Card project, the degree of newness is here assessed as being more of a radical nature than of an incremental nature. A summary of this evaluation is provided in the next exhibit.

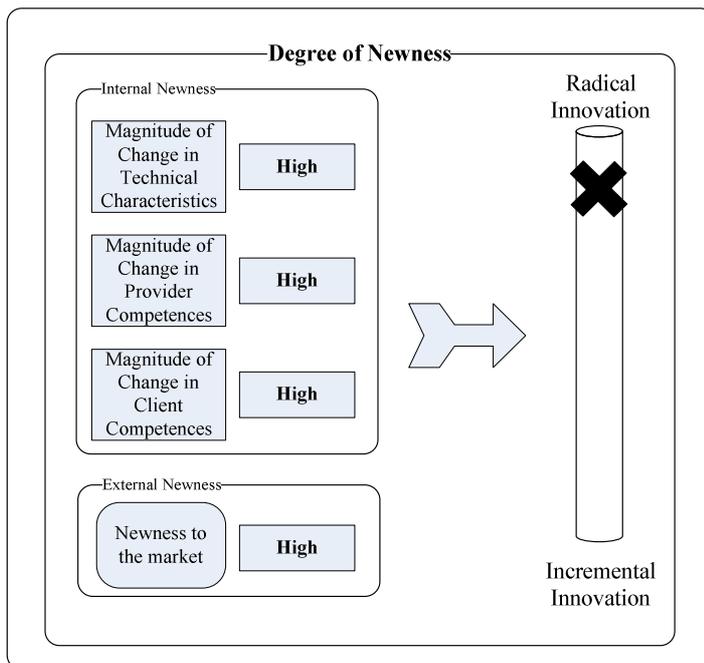


Exhibit 63: Degree of Newness Inno-Card

6.2.2 The Absorption Process

In the following, the single absorption activities are being reviewed and are grouped into absorption phases, based on the in the literature identified conceptual process model by Todorova & Durisin (2007).

6.2.2.1 Recognizing the value

The initial awareness of being in the need for information related to credit card business originated from the basic monitoring and studying of the core market segments of the bank. As the bank had focussed excessively on end-consumer loans in the past, it recognized the high amount of competition and the stagnating growth of classic end-consumer loan segments. *“As regards interest rates we noticed that this everyone is doing. That changed then into a jungle of special conditions*

for specific customer segments. There everyone noticed that it becomes difficult to compete on the basis of prices. “ (Head of product management department, 011:012). As a response BankXY recognized the need to broaden its current service portfolio: *„In general we have to say that, independently from the crisis, that the consumer loan business is stagnating since four years. It does not fall, but it does not increase either.”*(Head of product management, 044:044)

After this market situation had been recognized by senior management, the bank identified an opportunity to create additional business via the introduction of a credit card, which would combine end-consumer loans with the basic functionality of a credit card. Through this development, the stagnating market development should be circumvented. *“The card has the purpose to generate more new-clients.”* (Head of product management, 016:016).

Project members involved in the development of the new credit card identified the need to search for specific expertise outside the firm. Thereby recognizing the value of external knowledge about the technical realization and the potential market for credit cards was done through reflection and discussions at the outset of the project. *“Interviewer: How did you know how the project has to be run? Interviewee: This was quite easy. We have thought about what had to be done, then we talked with CardProcessor [name changed]. They, then told us what to do.”* (Divisional manager, 52:55) After the recognizing by the project members about the necessity to source these knowledge domains from external partners, the bank approached its parent organization in order to take advantage of the there residing credit card know-how which facilitated the choice of appropriate partners for both the market know-how and the credit card processing tasks.

In a similar vein, as BankXY was aware of their lack of expertise in understanding the credit card market and its customers, the bank started to search for an expert consultancy which could take over market-related tasks, such as research, market potential analysis, and others. Here, also the relationship to the parent organization helped BankXY to identify a specific consultancy with the needed credit-card know how. *“[The market research consultancy] was also working inside our parent organization and did projects there.”* (Sales support expert, 022:022)

6.2.2.2 Acquisition

Due to the fact that the creation of a new type of credit card concept necessitated information from areas outside BankXY's expertise area, such as about credit card processing and market information

about the client's preferences and competitor's card-offerings, BankXY searched for suitable partners knowledgeable in these expertise fields. *"The CardProcessor [name changed] contributed the Know-How about the technical processing..."* [divisional manager, 9:22]

Yet, although at BankXY project members succeeded in becoming aware of some gaps of their internally held knowledge which resulted in the identification of the above mentioned knowledge fields, in part, the bank did not succeed in ascertaining correctly the scope of information influx needed to perform the project. For the acquisition of knowledge about the credit card processing, this resulted in too few information acquired which in turn negatively affected further development and overall time-schedule for accomplishing the development project as such. *"The key aspect of this [card processing] was, people thought, it can't be so difficult. What fascinated me was the network operating in the credit card business.....you think of it as being so simple...."* [project leader, 41:42)

In more detail, after BankXY had identified the knowledge needs for the marketing and processing of the credit card, the bank initiated a collaboration with a consultancy for the market research part, and with a card-processor for the credit card processing. The insufficient knowledge acquisition appeared during the collaboration with the card-processor. Here, project members projected their own views on the nature of credit card operations on the activities of the card processor. This resulted in the fact that BankXY gained only a partial insight into the activities of their collaborating expert organization. As both the card processor and BankXY had to jointly develop IT-solutions and system-interfaces in order to process customer credit card activities, this had considerably negative consequences. *"People were not conscious direct from the beginning, what it means regarding complexity, what it means to introduce such a product. That does not only concern marketing, but also the operative processes, which exist in relation with the card. It is totally different from the deferred payment credit. Everything had to be done new, from sales how the credit is being granted, to how that is being connected to the processes. Also the exchange between the processes of the bank and the card processor they all run totally different and have to be created. Maybe this was a little bit underestimated."* (product management department head, 18:24) *People here thought, with the credit card we would simply open up a new sales channel for our credit offering [name changed]. So people thought, credit we can do, the card the card processor can do. There everyone thought that is no problem. But it was a fallacy. The credit card process is much more sophisticated..."* (project leader, 3:5)

At BankXY, the meetings directed at exchanging information about each other were designed to fulfill the information needs posed by middle and higher management and thus information was more of a general nature. As interviews revealed, the first phase of the collaboration with the card processor lacked involvement of those people who needed to do the real work in the project related to the card processor, namely the IT-specialists of BankXY. *“Also concerning the collaboration of the card processor [name changed] and BankXY [name changed], there it was that way that from my perspective there were too few workshops with them. People thought too early they would have understood. In addition the developer were not involved. It was more management talk. The technical area should have become involved much earlier”* (project leader, 3:10)

Notwithstanding these difficulties, certain acquisition of the knowledge did take place, even if it was not done in an optimal way direct from the beginning. Especially during the implementation phase, concrete and applicable information was acquired for the development of the Inno-Cards internal procedures and technical applications. *“At the moment the developer have each week a telephone conference, where questions are being answered by experts from the card processor. Workshops are envisioned already since months, according to the developer, however, current ways of communication would be sufficient. They know the contact person [at card processor] and whom they have to contact in the case of problems.”* [project leader, 3:10]

In another vein, the acquisition of the information about the credit card market characteristics followed a different pattern. Here, the analyses as well as the writing of a business plan for the introduction of the new service were outsourced to an international consultancy company, as it was thought of as very experienced in the general credit card market and, in addition, as very well connected to both the mother organization of BankXY as well as the card processing firm involved. *“In addition [to the card processor] we involved a consultancy, ConsultCo [name changed]. We had them for the market research area. But not only. Their second task was political, as a political instrument. They also had very good contacts to our mother organizations [name changed].* (Head of division, 23:23)

“Basically they were only involved in the pre-project, mostly because of political issues and because of know-how transfer in areas where this [expertise] was lacking. We do not have the expertise to identify, where a market between the boundaries of credit cards and consumer loans would exist.” (project leader, 14:15)

For the two tasks which the consultancy took over, i.e. the acquisition of the generated information about the market and business plan was performed in different ways. For the business case, BankXY received the information quite late, after the controlling department had actively asked for a draft version. *The Business Case was done by the consultancy [name omitted]. There the involvement was quite late for controlling. In the middle of 2007 we were getting involved, but that was too late.*” (Head of controlling, 13:13) Without this pro-active acquisition, the bank would have received only the final result without any possibility to anticipate its form and content.

As regards the acquisition of the knowledge generated about the market potential of the new credit card service, BankXY chose a different and more integrated approach. Here, consultants engaged in in-depth market analysis, the generation of specific market research analyses, such as Conjoint Analysis, and the incorporation of expertise held by other consultants of the consultancy located in different countries all over the world. However, information exchange took place over the whole course of the project phase in which the market research was scheduled, meaning that during the whole duration of the joint work on the market report, two consultants were located directly at the headquarters of BankXY, participating in each meeting related to the development activities. *“There was an interface through which the consultants [name omitted] communicated with the project leader. The consultants did participate though in each Jour Fixe meeting. In the beginning, there were many workshops in which the consultancy [name omitted] participated. OW acquired often information from themselves [other consultants inside the same consultancy] and contributed these to the workshops.”* (sales support expert, 12:28). Towards the end of the project, employees, and later also their friends and family, were invited to test the novel credit card. *“Then the pilot phase started. Employees of the bank tested the card “live”. This also comprised the exchange of experiences made with the usage of the card and their impressions concerning the look and feel of the card.”* (Marketing expert, 37:38)

6.2.2.3 Transformation

Transformation of internal knowledge base

To start with the transformation of the internal knowledge base, here no changes could be observed inside the bank. Hence, the bank tried to understand the acquired information about the credit-card market and the technology on the basis of their priority existing expertise areas. As the characteristics of the new service deviated, however, to a large extent from existing characteristics of the current

services, considerable difficulties arose in the transformation of both market- and technical information. This lack of transformation of the internal expertise areas of the bank, in order to become capable of understanding the externally sourced information could be related with the general lack of awareness of the complexity and novelty of the needed information. *“The key aspect of this [card processing] was, people thought, it can’t be so difficult. What fascinated me was the network operating in the credit card business.....you normally think of it as being so simple....”* [project leader, 41:42) *People here thought, with the credit card we would simply open up a new sales channel for our credit offering [name changed]. So people thought, credit we can do, the card the card processor can do. There everyone thought that is no problem. But it was a fallacy. The credit card process is much more sophisticated...*” (project leader, 3:5). Due to limited prior knowledge, the need for adopting own expertise areas related to the technical change was not recognized.

In a similar vein, a lack of transformation activities of those expertise areas related to market information was identified. Here especially the external information embodied in the business plan would have necessitated additional in-house expertise in order to understand the rationale behind decisions taken in the externally drafted Inn-Card business plan. *We received the business case and then one employee worked on the business case. Then, however, questions arose concerning the calculation logic. Also questions arose where the assumptions came from and why certain decisions were taken. The business case we went through together with other colleagues from product management. The questions which we could not answer ourselves we asked again the consultancy [name omitted].* (Head of controlling, 35:35)

As the above quote indicates, internal experts within specialized departments were not capable of fully understanding the acquired information and hence had difficulties to apply this information to the development of Inno-Card.

Transformation of the external information

Related to the lack of updating of the internal expertise areas of the bank, the transformation of the external information was obscured, too. Due to the fact that no internal experts owned the full expertise in order to become capable of translating the externally sourced technical or market information to other organization members, the transformation of the specific external information was performed, in part, by the external information providers.

As regards market information, here it was already mentioned, that due to the lack of in-house expertise problems arose in understanding the received information. After in-house experts had tried to transform this information, they finally resorted to the external provider of the information in order to receive support in the understanding of the external information. *“The delivery of the business case now is nearly two years ago. We received the business case and then one employee worked on the business case. Then, however, questions arose concerning the calculation logic. Also questions arose where the assumptions came from and why certain decisions were taken. The business case we went through together with other colleagues from product management. The questions which we could not answer ourselves we asked again the consultancy [name omitted]. They answered then via telephone or email. Partially there also was a consultant from [name of consultancy omitted] in the house. These tasks we solved then successively. This was mid-2007.”* (Head of controlling, 35:35). Other market related information, such as those related to the customer analysis, were transformed by the external consultants in order to make the information applicable to the service development of the Inno-Card.

In a similar vein, also the transformation of the external information of the card processor was constrained. However, here, the lack of transformation seemed not to originate from a lack of existing expertise, but rather was identified to be due to a lack of involvement of in-house experts in the meetings with the external information supplier. More precisely, within the first period of collaboration between the bank and the card processor, BankXY engaged exclusively general management and product management staff in the transfer meetings. IT specialists and operations experts were, however, not involved in these meetings. This subsequently resulted in relatively unclear specifications relating to the internal processes affected by the change as well as an underestimation of the necessary workload for implementing the credit card related processes in-house. In consequence, the understanding of the knowledge resided at a superficial level which did not allow for acquiring any in-depth understanding as to what implications the external knowledge of the card processes would have on the internal organisation at BankXY. *“Also concerning the collaboration of the card processor [name changed] and BankXY [name changed], there it was that way that from my perspective there were too few workshops with them. People thought too early they would have understood. In addition the developer were not involved. It was more management talk. The technical area should have become involved much earlier”* (project leader, 3:10)

Only at the end of the project, internal experts from the information systems department were involved in the transfer of information from the card-processor to the bank. *“At the moment the*

developer have each week a telephone conference, where questions are being answered by experts from the card processor. [project leader, 3:10] This, partially alleviated the lack of transformation in the beginning of the project, yet could not protect from several misspecifications resulting in the final delay of the project. “And now, from November 2008 until now, since the moment when the interfaces were built up, there came out data which you did not know and did not know where it came from, and then you became aware of the fact that there were large unknown processes left. After this unknown information has been sighted, you sit down together to get an explanation from the card processor where it comes from and how it works.” (Project Leader, 3:7)

All in all, also regarding the transformation of the external information by internal staff of the team-bank, considerable difficulties were observed. While the lack of market expertise impeded the proper translation of the external market information, the lack of transformation activities related to external technical information originated rather from the non-involvement of existing experts. Hence, although internal expertise was accessible within the bank, the use of this expertise was constrained, especially at the beginning of the project, as management within the bank had misperceived the level of complexity of the information involved in the Inno-Card project.

6.2.2.4 Application

As the external information acquired was contributing to the overall development of a new service offering, its application took place mostly in the implementation phase of the development project.

As regards market related information, at BankXY its application took place in the implementation of the new credit card offering, including the training of the sales force. Within these activities, the sales support department of BankXY took advantage of the market analysis done by the consultancy in order to stress the unique characteristics of the new credit card, among other aspects. As the head of the sales support department indicated in one of the interviews, the results of the market research activities of the external consultancy were applied to the service-launch concept, service advertisement plan, sales reporting and training of the sales force. Especially in the definition of the final service concept the externally sourced information about the credit-card market characteristics was applied. *“In the beginning the market overview and the market characteristics which were reported by [market research consultance] as well as the customer perspective reported by them was very helpful for us to model the credit card.” (sales support expert, 026:026)*

Subsequently, information gathered from pre-market tests with trusted bank employees from partner organizations revealed additional insights which were applied to the refinement of the sales process, the appearance of the card's branding and design, and the improvement of the handling of the different administrative activities related to the Inn-Card. *"In May / June, the final concept was done. Then it went into pilot-phase, where employees of BankXY tested the card "in vivo". This also comprised an exchange of experiences how the card was perceived and what impression the testers had of the card."* (sales support expert, 037:038)

Yet, while the more general market research results could be applied with relative ease, the application of the information embodied in the externally created business case was obscured. As was reported elsewhere already, a lack of understanding of the in the business case comprised assumptions and decisions made it difficult for the project members to apply the business case to the further service development. *"We received the business case and then one employee worked on the business case. Then, however, questions arose concerning the calculation logic. Also questions arose where the assumptions came from and why certain decisions were taken. The business case we went through together with other colleagues from product management. The questions which we could not answer ourselves we asked again the consultancy [name omitted]."* (Head of controlling, 35:35). As in the business case to a large extent the financial elements and performance expectations of the Inno-Card were embodied, the application of this information took place mostly in the controlling department, where these information was used to integrate the Inno-Card in the financial reporting of the bank, and to identify performance metrics of the card. *"We were concerned with how the card could be reported, controlled, and steered. This was, however not only a pure controlling topic, but it had to be clarified how it could be integrated in the systems."* (head of controlling, 017:017)

As regards the application of the technical information from the card processor, here a more challenging situation was identified. As had been reported in prior chapters already, acquisition of technical information regarding the design and organization of internal routines and technology for the Inn-Card operations were hampered, due to incomplete information transfer caused by insufficient transformation activities. As a result, the application performed by the project members comprised errors and resulted in malfunctioning of the operating systems. *"Due to implementation problems, it came to delays of two months. Well, originally, the project should have been introduced already in November 2008."* (Head of Division, 047:047) *"We want to finalize the card project in May. We want to hand over everything into the departments and to define*

responsibilities. At the moment it is the case that after the launch errors occur which have to be corrected first.” (Head of product management, 026:027). *“The project is not yet finished. The errors are still too big.”* (Project leader, 012:012). In more detail, especially in the design of the IT-systems errors occurred during application. *“And now, from November 2008 until now, since the moment when the interfaces were built up, there came out data which you did not know and did not know where it came from, and then you became aware of the fact that there were large unknown processes left. After this unknown information has been sighted, you sit down together to get an explanation from the card processor where it comes from and how it works.”* (Project Leader, 3:7)

All in all, the application of the externally sourced information was relatively obscured. By comparing the application of market and technological information to the development of the Inno-Card, especially the technical knowledge absorption showed difficulties and was applied, in part wrongly which resulted in malfunctioning of different elements of the IT-infrastructure of the card.

6.2.3 Dynamics of the Absorption Process

When taking a closer look at how the absorption activities were performed over time, different patterns regarding market and technical absorption activities were identified. As regards the absorption of market information here a partially iterative process was observed. At the beginning, the contracted market research consultancy performed a market study in order to reveal customer preferences, market potential, and competitor’s alternative offerings. This early input was then subsequently applied in the design of the service concept. *“Basically they were only involved in the pre-project, mostly because of political issues and because of know-how transfer in areas where this [expertise] was lacking. We do not have the expertise to identify, where a market between the boundaries of credit cards and consumer loans would exist.”* (project leader, 14:15)

After this first iteration of the absorption process, a second iteration was identified during the implementation phase. Here market information was again sourced from external sources, mostly from trusted employees of partner banks. These were handed preliminary versions of the Inno-Card in order to obtain feedback on the design of the card’s appearance, as well as the different service aspects and the therefore necessary processes. This influx of external market information helped the project members to refine the Inno-Card. *“In May / June, the final concept was done. Then it went into pilot-phase, where employees of BankXY tested the card “in vivo”. This also comprised an*

exchange of experiences how the card was perceived and what impression the testers had of the card.” (sales support expert, 037:038)

In a different vein, the absorption of the in the business case embodied information on market potential and future market scenarios showed an incomplete iterations. Regarding the acquisition of external information, here several times new information was accessed from the external consultancy, as BankXY’s experts had difficulties to understand the initially received version of the business case. They needed to acquire subsequently additional information by inviting external consultants again to their department in order to have the business case explained by them. Yet, due to the fact that after they had received the business case they could not readily understand and apply it to the development, no complete iteration of the absorption was observed. Rather, only after for a second time information about the business case was acquired by inviting the consultants for a second time, the business case could be understood by the controlling experts and could subsequently be transformed and applied to the development activities. Hence, no multiple, but rather a single, quite obstructed iteration of the absorption of external information was observed here. *“We received the business case and then one employee worked on the business case. Then, however, questions arose concerning the calculation logic. Also questions arose where the assumptions came from and why certain decisions were taken. The business case we went through together with other colleagues from product management. The questions which we could not answer ourselves we asked again the consultancy [name omitted]. (Head of controlling, 35:35)* (Head of controlling, 35:35)

Finally, as regards iterations in the absorption of technical information, here, similar to the absorption of the business case, also incomplete absorption cycles were observed several times. At the beginning of the project, general management of BankXY engaged in acquiring information about the different procedures to be implemented within the bank. This information, was however, not correctly understood, as internal expert were not included in these meetings. Consequently, transformation of the externally acquired information as well as the application of the information could not be performed completely. *“Also concerning the collaboration of the card processor [name changed] and BankXY [name changed], there it was that way that from my perspective there were too few workshops with them. People thought too early they would have understood. In addition the developer were not involved. It was more management talk. The technical area should have become involved much earlier” (project leader, 3:10)*

Only later in the project, a complete absorption cycle was performed, when the internal IT-experts got involved in the information transfer between the card processor and BankXY. Here, the acquired information was understood and could be applied to development activities. *“At the moment the developer have each week a telephone conference, where questions are being answered by experts from the card processor. Workshops are envisioned already since months, according to the developer, however, current ways of communication would be sufficient. They know the contact person [at card processor] and whom they have to contact in the case of problems.”* [project leader, 3:10]

All in all, while for pure customer research information, complete iterations of the absorption process were observed, in the other information absorption activities, the processes partially iterated, too, yet in an incomplete manner. This was, mostly, due to the fact that acquired information could either not be transformed correctly due to not existing internal expertise, or due to the fact that existing internal experts were not involved in these absorption activities. Hence, complete multiple iterations were not performed in the majority of information absorption activities in the Inno-Card project.

As regards potential overlaps or parallel pursuits of single absorption phases, solely in the market-information related absorption, parallel activities were observed. Through the more integrated approach to directly work with the external market research consultants, the different absorption activities seemed to overlap. This was furthermore facilitated through the local presence of the consultants for a longer period of time within the offices of the sales-support and marketing department of the bank. *“There was an interface through which the consultants [name omitted] communicated with the project leader. The consultants did participate though in each Jour Fixe meeting. In the beginning, there were many workshops in which the consultancy [name omitted] participated. OW acquired often information from themselves [other consultants inside the same consultancy] and contributed to the workshops.”* (sub-project leader sales, 12:28) Through this constant interaction between the external and internal experts, the internal staff responsible for the application of the external information in the conceptualization of the market entry and sales training, could resort to the external experts if priority sourced information did not suffice to accomplish a task. Hence, during the application of the market information, in parallel, novel information was acquired through the proximity of the external experts.

Within the other information absorption processes, no such parallelism of absorption phases was observed. As regards the business case, due to the incomplete understanding of the received business case information, no application in the service development was performed, but after certain details could even after in-depth analysis not be understood, consultants were again invited to BankXY's controlling department, in order to acquire additional information and to receive support in transforming the business case information into information applicable by BankXY's internal experts. In particular, during the absorption of technical information related to the IT- and process-architecture for the Inno-Card, a lack of overlap between information acquisition and information application was identified. As in the beginning no IT-experts were involved in the meetings with the card processor, the acquired information was not immediately applied to the service development, as the IT experts needed to be informed subsequently from by the project leader and general management. As has been mentioned already, this incomplete absorption led to misspecifications of the IT-systems and processes. Only later in the project, direct communication between the internal IT-experts of BankXY and the external card processor was established. In this late phase, some overlap among the absorption phases such as acquisition and application could be realized, yet the initial lack and the from there resulting errors could not be compensated by this, as at the time of data collection, still the initially made errors impacted on the overall performance of the service.

In line with the reduced levels of dynamism of the absorption processes, also the overlap of the market and technical absorption process was flawed. In general, such overlap or interaction between those internal staff responsible for market and technical information absorption was lacking and hence could not be identified in the analyzed data. This became most evident in the timely separation of the market research and technical realization phases of the project. While the market research company was most active in the "pre-phase" of the project, the technical absorption took place much later in the end phases of the project. Besides, in the early phases of the project, where market information was gathered via a contract with a market research consultancy, communication between the bank and the consultancy was very limited. This indicates the lack of interconnectedness of the market and technical absorption process. *"Then [consultancy] collected information from us, but that happened relatively isolated. From time to time they wanted to get information about specific issues. At a certain point in time I wrote them an email that I would be irritated about their information-gathering strategy."* (Head of controlling, 11:12)

6.2.4 ACAP and the Innovation Process

At BankXY no formal development process was in place. Due to the rather nascent maturity of the development activities of the bank, no such institutionalized routine was defined yet. Development rather followed rather generic development stages of initial analysis, further detailing of the service concept, development of the routines and IT-infrastructure, and launch related marketing and training.

Regarding the interplay of this generic development process with the ACAP process, a rather different picture emerged than was observed in the other cases. While at BankPro and BBVA a synchronized, nearly parallel, pursuit of the ACAP and development processes was observed, at BankXY these processes were not perfectly aligned. This became evident in the misaligned acquisition of external information and the design and analysis phase. Acquisition of relevant external information was performed only later in the project when awareness emerged that insufficient levels of learning about the needed technological foundation of the new services had taken place. *“Also concerning the collaboration of the card processor [name changed] and BankXY [name changed], there it was that way that from my perspective there were too few workshops with them. People thought too early they would have understood. In addition the developer were not involved. It was more management talk. The technical area should have become involved much earlier”* (project leader, 3:10) This misalignment resulted in the already mentioned delay of the project and the considerable re-work of the established routines. The following exhibit visualizes this observation.

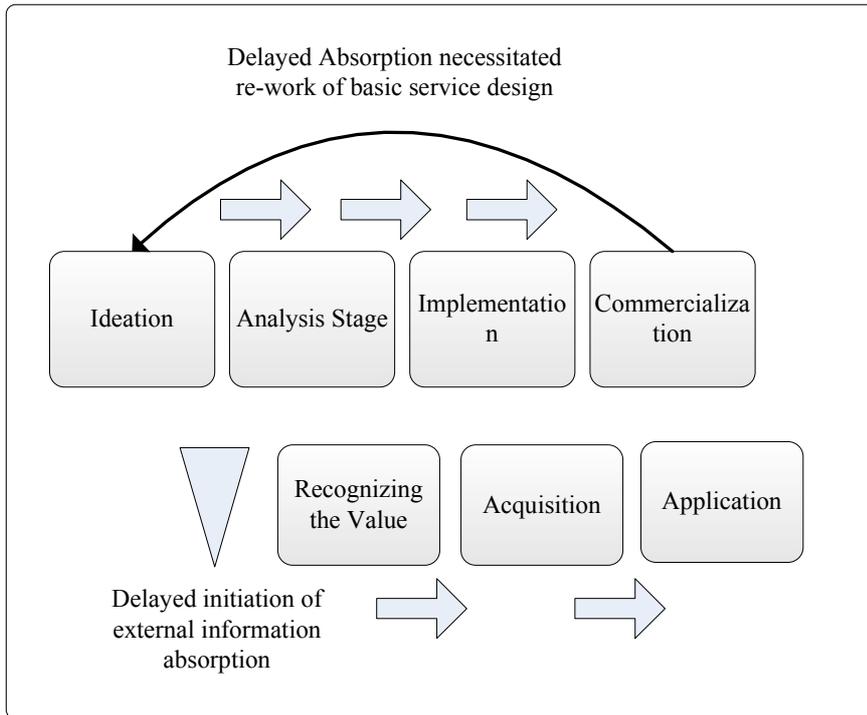


Exhibit 64: ACAP and the Innovation Process (BankXY)

6.3 Facilitators and Inhibitors of the Absorption Process

6.3.1 Mindset

As was reported in the description of the absorption process already, no sufficient transformation activity regarding the external knowledge and/or the internal knowledge base were observed. This was observed to stem from a lack of alertness or consciousness about the degree of newness of the needed external information. In contrast, external information was taken as common knowledge which would be understandable to the internal project members. Yet, data suggests that the non-transformation of BankXY's knowledge bases hampered external learning and subsequently led to considerable barriers in the development of the credit card.

Data from multiple interviews indicates that several experts at BankXY tried to view the new product and the external information gathered through the lens of their existing service offering. In more detail, project members implicitly defined the new credit card and the accompanying loans offering as identical to their existing loan concepts, and viewed the credit card and its inherent processes through their general understanding of credit cards, resulting in the fact that important questions and inquiries directed at the external credit card processor were not posed. *“The key aspect of this [card processing] was, people thought, it can't be so difficult. What fascinated me was the network operating in the credit card business.....you think of it as being so simple....”* [project leader, 41:42) *People here thought, with the credit card we would simply open up a new sales channel for our credit offering [name changed]. So people thought, credit we can do, the card the card processor can do. There everyone thought that is no problem. But it was a fallacy. The credit card process is much more sophisticated...*” (project leader, 3:5)

Especially the fact that project members and broader staff at BankXY did not try to increase their level of expertise with regard to the functioning of credit cards hampered had considerable consequences. This became evident in the fact that lack of internal expertise due to the failure of broadening and hence transforming the current knowledge base led to reduced communication with the partner on credit card processing *“Also concerning the collaboration of the card processor [name changed] and BankXY [name changed], there it was that way that from my perspective there were too few workshops with them. People thought too early they would have understood. In addition the developer were not involved. It was more management talk. The technical area should have become involved much earlier”* (project leader, 3:10)

Another indication for the lack of motivation to increase internal knowledge about credit card functioning constituted the reliance of project members on the mother organisation of BankXY which was highly familiar with credit card business for several years already “*The [parent organization] contributed the Know-How concerning the credit card business and CardProcessor [name changed] contributed the Know-How about the technical processing- And we contributed the product...*” [divisional manager, 9:22]

In sum, the lack of openness of BankXY’s project members to learn about credit card business and hence the lack of transformation of the internal knowledge base in order to better understand external information resulted in considerable consequences for the overall performance of the development project. “*People noticed, that this project could not be performed in the defined time frame, because people acted on the assumption of only standard processes*” (project manager, 7:12) The head of product management argued: “*People were not conscious direct from the beginning, what it means regarding complexity, what it means to introduce such a product. That does not only concern marketing, but also the operative processes, which exist in relation with the card. It is totally different from the deferred payment credit. Everything had to be done new, from sales how the credit is being granted, to how that is being connected to the processes. Also the exchange between the processes of the bank and the card processor they all run totally different and have to be created. Maybe this was a little bit underestimated.*” (product management department head, 18:24)

Finally, as was identified during the analysis of the interviews, some organization members did not support to use information created by external partners, as the conviction existed that internal departments could have performed the creation of such information and data to a more satisfying degree, which indicated a relative reservation towards the expected quality of externally sourced information. “*I am not a friend of giving Business Cases outside. There were had already priory several problems, it was done, however, again this way.*” (Head of Department, 31:32)

6.3.2 Social Integration Mechanisms

Due to the firm size of BankXY, all departments were located at the headquarter office in the same city. Due to only 400 employees working in non-sales related areas, people in related areas tended to know each other and met each other frequently in social areas such as in a jointly used cafeteria.

Due to this proximity, and the resulting frequent contact of people inside the bank, the sharing of information was facilitated.

In addition to this, also a kick-off presentation followed by regular status meetings was held. Here project members were updated according to the latest information relevant to the project. *“There existed Kick-Off presentations, workshops and jour fixes. There the new ideas are being presented. All are being updated on the latest status. So that all can work on the same basis.”* (Lawyer, 079:080).

Yet, although frequent meetings were pursued, not all potentially important departments were involved in these meetings. Certain specialized departments such as controlling, law, or IT were only being involved in the project, when concrete tasks were coming closer. For example, the head of controlling stated: *“We were not involved in every step. For example in the topic of processing, there we were not involved. That was not relevant. It is also the case that some tasks, which we are doing, are irrelevant for the others and those are then not involved in this.”* (Head of Controlling, 009:010) Further the head of controlling added: *“The biggest challenge was to find the right mix of collaboration, monitoring, and involvement in the different project phases. We were not always involved. Here it was also important to not forget about the project.”* (Head of controlling, 078:079)

This resulted several times in problematic situations, as problems in the specification and design of the Inno-Card were spotted very late, causing delays of the overall service development. *“Here problems. We missed out that we could not treat the Inno-Card’s loan like [our classic loan type]. And there we got into time constraints, because IT was getting involved too late.”* (Project leader, 042:042)

In a similar vein, a lack of involvement of the legal department led to delays in the design of the documents needed for the service delivery of the Inno-Card. Due to the fact that the legal department was not involved over the whole development process, but only when concrete demand for their expertise existed, communication took place. For example, the project leader indicated that the service-concept was passed at a certain moment in the project to the legal department in order to provide the legal experts with a basis for their upcoming task to design the sales documents. Prior to the concrete request, the legal department was not involved in the development project: *“In the pre-phase we were not involved. Actually we had first contact in mid 2008. There we had first contact with the project.”* (Lawyer, 088:088)

Once the legal department had analyzed the service concept, it became clear relatively quickly that the envisaged basis for the Inno-Card's loan element could not be the already existing loan-type of BankXY, but that a different legal type of loan would have to be combined with the credit card. This resulted in sudden changes of the service concept and lead to additional work-load of other project members and external partners. *“The lawyers knew as the very first that it was a completely different product than everyone had originally thought. The problem was that they first had to learn what the product was all about. The service concept was simply forwarded to the legal department. And then it was the case that the lawyer asked questions, yet did not ask the right questions. Nobody knew what the other would know.”* (Project leader, 071:071)

All in all, basic knowledge integration mechanisms existed within BankXY. Yet, although such mechanisms were present e.g. due to the centralized headquarter, and the regular status-meetings, sharing of information did not take place in an optimal way. Even more problematic, several times a lack of information sharing led to considerable extra-work and delays in the overall development time. This lack of sharing was found to be related to the only occasional involvement of important experts in the project. Often, only when concrete tasks had to be handed over to other departments, information exchange took place. If these experts had been informed about the progress of the project in more detail, the application of external information to the service development would have been less flawed. Hence, although basic knowledge integration mechanisms were put in place via classic project management approaches such as status-meetings, the design of these sharing mechanisms seemed not appropriate as important experts did not receive early enough important information. Due to this, the existing knowledge integration mechanisms did not lead to a sufficient degree of knowledge sharing.

6.3.3 Network

Partner Organizations

In the Inno-Card project, two external partner organizations were involved. The first external expert firm served as the main source of information for the technical realization of the Inno-Card. *“The CardProcessor [name changed] contributed the Know-How about the technical processing...”* [divisional manager, 9:22]

This expert organization informed key personnel about the necessary procedures and the needed technology in order to realize the credit card based innovation. Although the card processor was not priorly known by the bank, a long-standing relationship existed for many years with BankXY's parent organization. The parent organization at times made also use of the expertise residing within the card processor firm. It may be argued that due to this long-standing collaboration, the quality of the relationship between BankXY and the expert firm was high. Indeed, no evidence was identified which could have indicated any difficulties regarding the way of working together between these firms. As was mentioned elsewhere already, the difficulties in understanding the technical information and the problems in applying these correctly inside BankXY were rather caused by BankXY's management of the information exchange and hence did not result from any kind of relational barriers between the two firms. *“Also concerning the collaboration of the card processor [name changed] and BankXY [name changed], there it was that way that from my perspective there were too few workshops with them. People thought too early they would have understood. In addition the developers were not involved. It was more management talk. The technical area should have become involved much earlier”* (project leader, 3:10)

As regards market related information, another external company was contracted. BankXY chose a well know consultancy which was widely recognized for its expertise in retail banking, and, more precisely in the credit card business. This expert organization collaborated with BankXY on the identification of important features of a credit-card based service as well concerning a potential positioning of the new service among other already existing credit card based service offerings. The relationship between the bank and the external consultancy was described as having been very good. Internal experts who collaborated directly and over the whole project with this expert firm reported a high quality of the working relationship. Furthermore, it was reported that the external consultancy was highly interested in the project also because it regarded the innovation as an important opportunity to enrich its expertise in novel credit card based service offerings. This high quality relationship was further facilitated through past projects of the consultancy with BankXY's mother organizations. *“In addition [to the card processor] we involved a consultancy, ConsultCo [name changed]. We had them for the market research area. But not only. Their second task was political, as a political instrument. They also had very good contacts to our parent organizations [name changed].* (Head of division, 23:23)

All in all, both organizations which were contracted for the Inno-Card project were vital for the development of the Inno-Card. Without the card-processor, no internal operations could have been

installed, while without the market research consultancy, no adequate set of features could have become identified in order to fulfill client's expectations and to position the service in the market for credit-card based service offerings. In addition, good working relationships supported the absorption of information in both cases. This quality of the relationship with both partners originated from the fact that BankXY's mother organization maintained relationships with the partners regarding prior collaborations. *"They [consultancy] also had very good contacts to [mother organization]."* [divisional head, 022:023]

Parent Organization

The parent organization of BankXY supported the management in identifying an appropriate technology partner for the development of the Inno-Card. BankXY took advantage of an ongoing relationship of its parent organization with a specialized organization for credit card handling.

In addition, the parent organization supported BankXY in acquiring information related to the marketing of the Inno-Card innovation. Here ongoing relationships with a market research company were used in order to obtain support in the development of a marketing concept for the new service. Further, BankXY's parent organization supported the bank in certain legal areas. Here, the bank could benefit from already existing legal documents which needed to be integrated in the contract-design for the new financial service. This transfer of "ready-to-use" information facilitated particularly the legal department's work load.

6.3.4 Power Relationships

Power relationships, i.e. relationships that involve the use of power and other resources by an actor to obtain his or her preferred goal" (Pfeffer, 1981) were identified as influencing the absorption process in certain ways. At first, top management within BankXY legitimated the Inno-Card project and prioritized it among a series of strategic initiatives. Through this priority, internal resources could be dedicated to the acquisition of external information, e.g. through the contracting of specialized external partners. *"We also had the necessary resources for this. That starts with the [IT] developer and ends with marketing planning. The topic [the project] was positioned correctly."* (Head of product management, 033:034)

Also internal resources needed for the transformation and application of the externally sourced information could be accessed with more ease. Hence, top management influenced on what kind of

potential product extension the bank would concentrate in the future and, consequently initiated the search for the needed external know-how.

6.3.5 Cross-Boundary Expertise

It crystallized in interviews that organization' members which were involved in the development project, had sometimes created a focus on specific expertise areas and did not show certain degrees of understanding of relevant other expertise areas. For example, although in the development of financial services, legal issues are most often highly relevant for many areas of the new service, here a lack of overlap of legal expertise among the project members was observed.

As the analysis of the interviews indicated, this lack of expertise-overlap may have induced unawareness of underlying legal challenges embodied in the basic service idea. General management and project leader designed a combination of a credit card with a type of end-consumer loan, which, legally, could not become combined in the way as it was envisaged. A basic awareness of the importance of a legal analysis in an early stage of the project could have helped to get the legal department involved earlier which could have identified the mis-specification of the from customers preferred combination of the credit card and loan type.

Support for this tentative finding could be identified in the relative newness of development activities inside BankXY. As was indicated elsewhere already, the bank had a strong focus on end consumer loans, and did not develop new services on a frequent basis. Due to this, departments inside the bank had no need to collaborate in the past in relation to new service development related topics. This may have limited the cross-fertilization of expertise among different departments and hence may have reduced the breadth of expertise of in development activities involved organization' members.

6.3.6 Prior Knowledge

At BankXY only some prior knowledge was identified as being helpful to the development of the Inno-Card. As was mentioned already elsewhere, BankXY was not experienced in handling financial services such as credit cards, yet was knowledgeable about end-consumer loans. This basic experience with this specific type of financial service was, however not helpful in order to acquire, transform, and apply external information about the internal operation of credit cards. The

bank needed to resort to its mother organization in order to identify a suitable external expert organization for the implementation of this basic element of the Inno-Card innovation and subsequently had to rely mainly on the information influx of the external expert firm.

Due to this lack of prior expertise, also problematic decisions were taken, which, were grounded in a lack of basic understanding of the basic technical elements used in credit card operations. *“The most serious wrong decision concerned the way the data between the card processor [name changed] and BankXY would be exchanged. There exist different possibilities. ... The card processor simply said the system would be too expensive to install in-house, because the card processor was assuming too low quantities. The consequence of this was that we had to hand over many things to the card processor which we could have done by ourselves. This would have been expensive in the beginning, but we would not have faced these problems any more. ... In this case it happened because BankXY was too inexperienced with the concept and the card processor did not understand the concept correctly.”* (Project Leader, 031:033)

In addition to the lack of prior knowledge about the credit card operations, also the expertise related to the marketing and positioning of the credit card in the market was missing. *“In general it can be said that it was difficult to contribute with our experience to the project. Neither did we know exactly how the product would work.”* (Marketing expert, 063:063) Due to this, the bank had to rely on an external market research organization and could not benefit from prior experience in order to apply the gained market insight to the service development more easily. *We do not have the expertise to identify, where a market between the boundaries of credit cards and consumer loans would exist.”* (project leader, 15:15)

Finally, due to the fact that at BankXY service development was not performed on a frequent basis, expertise in the routines to develop new service was lacking which made it more difficult to know which in-house expertise was available and needed for certain development tasks. *“People were not conscious direct from the beginning, what it means regarding complexity, what it means to introduce such a product. That does not only concern marketing, but also the operative processes, which exist in relation with the card. It is totally different from the deferred payment credit. Everything had to be done new, from sales how the credit is being granted, to how that is being connected to the processes. Also the exchange between the processes of the bank and the card processor they all run totally different and have to be created. Maybe this was a little bit underestimated.”* (product management department head, 18:24) In addition, this became evident

especially in unawareness to involve certain expert departments early in the development process or to maintain strong interaction between the different departments involved in the service development. *“The technical area should have become involved much earlier”* (project leader, 3:10)

All in all, prior knowledge most often was not available in order to better identify, acquire and apply externally sourced information. In fact, due to the lack of prior expertise in credit card business, important technical opportunities were missed out and caused additional costs and time investments. Also the lack of procedural experience related to the basic service development process may have inhibited a more appropriate collaboration between the different departments.

6.3.7 Firm Size

Due to the relatively small firm size of BankXY, resources for investing in different expertise areas were limited. This scarcity of resources was due to the fact that this medium sized bank did not have departments or experts in place which would have been exclusively dedicated to service development projects. All experts collaborating in the Inno-Card project were affiliated to regular departments, involved in daily operations of the bank. For example, the project leader originated from the product management department, also dedicated to the maintenance of the existing product portfolio of BankXY. While in other banks at least the project leader positions were institutionalized as full-time positions in order to constantly have resources available to pursue service development, at BankXY no such specialized positions existed. *“The project was located within the product management department. In addition sub-projects existed”* (Divisional head, 067:068)

This lack of concentration of development expertise in specialized positions or departments may have reduced the overall ability to identify and apply relevant information outside the firm, as no in-depth expertise in service development was created inside the bank, as service development was needed only infrequently inside the bank, due to the bank’s niche-orientation which again may have been due to the rather small size of the bank.

Yet, while there existed a lack of specialized product development experts, the limited size of BankXY was not identified as inhibiting the absorption activities of the bank to a large degree when looking at the overall innovation development activities. Rather, project members generally

reported a strong commitment of the bank to the project, resulting in the dedication of considerable resources to the project. On the one hand this became evident in the statements about the sufficient availability of resources for the project: *“We also had the necessary resources for this. That starts with the [IT] developer and ends with marketing planning. The topic [here the project] was positioned correctly.”* (Head of product management, 033:034) On the other hand through comments of some project members that they would have had the capacity to perform more tasks in the projects, if this would have been permitted by senior management. *“In this phase [of the business case development] we would have liked being involved more intensively. There many open questions remained.”* (Head of Controlling, 30:31)

On the other hand, the small firm size allowed BankXY’s employees to implement the novel insights in a relatively efficient way: *“The chairman of the board always says to us divisional managers, that we have to be the entrepreneurs in the organizations. If Mr. X (Project Leader) says we have a real problem, then I directly go to the chairman. There the decision making routines are short.”* (Divisional manager, 072:072)

Hence, all in all, the size of the organization inhibited to some extent the expertise of the bank in development of new services, as due to the limited size of the bank a niche-orientation existed which did not necessitate the constant development of completely new services. Yet, on the other hand no strong limitations in the absorption of external information could be identified when looking at the available resources for the project. Here, even more involvement of internal experts in the absorption of external information would have been possible. Further, the relatively small size of BankXY allowed for a rather efficient implementation of the findings which facilitated the application of the acquired technical and market information.

6.3.8 Characteristics of External Information

As regards the characteristic of the sourced external information, here its complexity, meaning whether it consisted out of many different interwoven elements,¹³ and its degree of ambiguity, i.e. the possibility of interpreting an expression in two or more distinct ways,¹⁴ was of focal interest. As

¹³ (the term Complex implies a combination of many associated parts, The American Heritage® Dictionary of the English Language, Fourth Edition copyright ©2000 by Houghton Mifflin Company. Updated in 2009. Published by Houghton Mifflin Company.)

¹⁴ (Collins English Dictionary – Complete and Unabridged 6th Edition 2003. © William Collins Sons & Co. Ltd 1979, 1986 © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003).

regards the complexity of the sourced information, here certain degree of complexity was observed for both market and technical information.

The technical information about how to internally operate certain parts of a credit card was complex in nature, as the information was embodied to a considerable extent in information how to organize internal tasks and routines and how to support these activities with the necessary IT-infrastructure. An indicator for the complexity of the technical information constituted the difficulty of the organization's members to fully understand the acquired information, which resulted in incorrect application of the technical information inside the organization. *"People were not conscious direct from the beginning, what it means regarding complexity, what it means to introduce such a product. That does not only concern marketing, but also the operative processes, which exist in relation with the card. It is totally different from the deferred payment credit. Everything had to be done new, from sales how the credit is being granted, to how that is being connected to the processes. Also the exchange between the processes of the bank and the card processor they all run totally different and have to be created. Maybe this was a little bit underestimated."* (product management department head, 18:24) *People here thought, with the credit card we would simply open up a new sales channel for our credit offering [name changed]. So people thought, credit we can do, the card the card processor can do. There everyone thought that is no problem. But it was a fallacy. The credit card process is much more sophisticated..."* (project leader, 3:5) Hence, regarding the technical information, a considerable degree of complexity was identified to be embodied.

In addition, the market related information likewise was characterized by certain degrees of complexity. The sourced information could not be readily understood by the bank's marketing experts but needed explanation by the external market research consultancy. The information consisted out of many different parts as for example a business case document was delivered which comprised both quantitative and qualitative information about the market potential, competitors, and different potential features of the later Inno-Card. *"Basically they were only involved in the pre-project, mostly because of political issues and because of know-how transfer in areas where this [expertise] was lacking. We do not have the expertise to identify, where a market between the boundaries of credit cards and consumer loans would exist."* (project leader, 14:15)

Hence, considerable degrees of complexity of information were identified in both the acquired market and technical information. Yet, as regards potential ambiguity of the external information, here no such high levels were identified. The technical information was only new to BankXY but was applied many times by the external card processor in other contexts. It consisted out of clear elements which had to be put in place in order to successfully install and operate information technology. In a similar way, the market related information comprised information about basic market aspects, which were presented with clear recommendation of how to interpret this information by the external research consultancy. Interviews indicated that these interpretations of the consultancy were accepted by the bank's project members and were subsequently applied to the service development. Hence both the technical and market related information did not show very high degrees of ambiguity.

6.3.9 Intellectual Property Rights

The lack of protection possibilities for financial services and their underlying ideas and service concept was identified as an inhibiting element in the absorption of external knowledge and subsequently for the development of the Inno-Card. „*The danger [of imitation] always exists, as the product is not protected. That can be copied for sure. There we have to develop new things already today in order to compensate potential imitations.*” (Head of product management, 005:005)

Due to this, only semi-official pre-market tests were conducted in order to learn from external customer feedback. To a large extend employees' family and friends as well as trusted members of partner banks were asked to use the Inno-Card in daily life and to try to administer the card via the offered interaction channels with the bank. This feedback mechanism was constraint due to the fact that no unknown customers without any former relationship to the bank could test the card. This could have led to additional insights, potentially unbiased due to personal affiliations to the innovator's employees. “*In October 2008 we entered then the phase of Family & Friends. This means that we asked employees from the shops to test the Inno-Card. These did and still do this and test all kinds of different application possibilities.*” (Divisional Head, 048:049)

This approach to involve merely trusted testers in the evaluation of the Inno-Card could have been due to the above stated awareness within the bank, that the underlying concept of the Inno-Card could be imitated by the banks competitors. This potential threat may have induced the decision to

try to control who would get to know the card's concept prior to the market launch, in order to not lose the time-advantages. Especially time advantages, or lead time, were mentioned by interviewees as a crucial lever for benefitting from a newly introduced service concept, despite competitors' imitation activities. Through making the service concept available to potential competitors via open pre-market testing would have potentially shortened the lead time of the innovation in the market and would have subsequently reduced the benefits the bank could have gained with the innovation. „*The others cannot copy it that fast. We needed one year to accomplish the project, but when they get it done in a while, too, then we have already a new product.*” (Head of product management, 007:008) Hence, the lack of protection mechanisms reduced the absorption of external market knowledge.

For the technical information absorption, no direct negative influence was observed. Here, BankXY could benefit from the fact that the procedures and activities necessary to operate a credit card could not be protected by the bank's competitors. Hence the service concept for credit cards was freely available and applicable to the bank.

6.4 Summary of Findings: BankXY

As regards the Inno-Card project at BankXY, here much variation in the absorption activities and the factors supporting or inhibiting external learning has been identified. As was described earlier, BankXY's development project faced considerable difficulties and market launch was delayed substantively. In addition, while market performance could not be assessed due to the recent launch date, shortly after the market launch, internal performance expectations had been higher than was achieved in reality. Thereby, this innovation was identified as comprising substantial amounts of novel elements to the bank and the market. In all three service dimensions, i.e. technical characteristics, provider competences, and client competences, substantial novelty was identified. Also external experts created a new subgroup for this card as it did not match with the already existing credit-card variants.

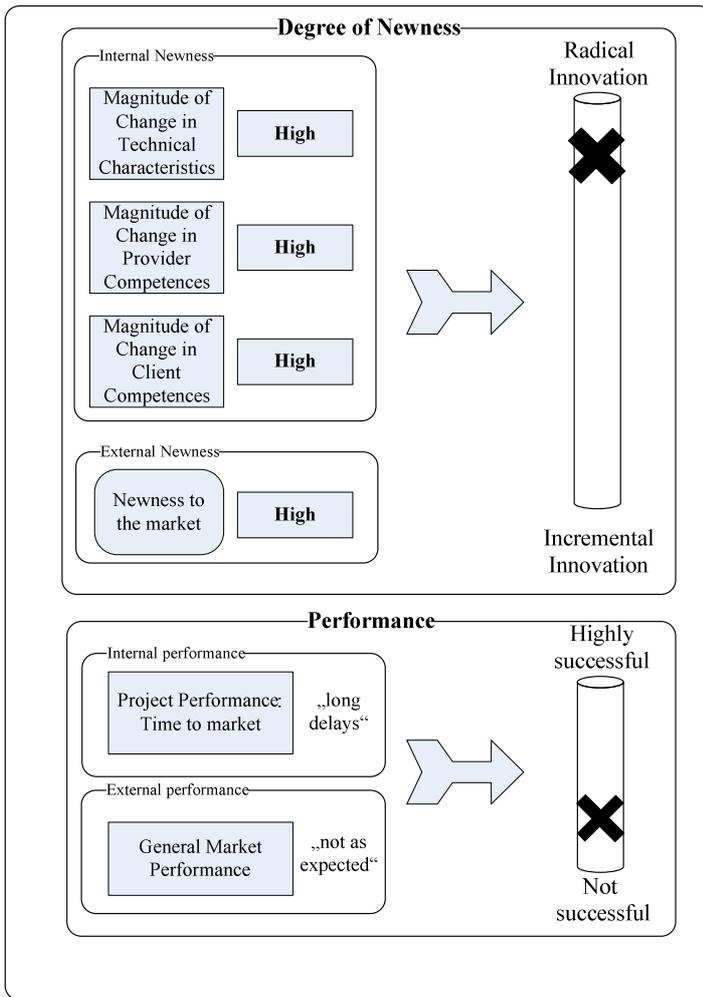


Exhibit 65: Degree of Newness & Performance Inno-Card

6.4.1 Inno-Card: The Absorption Process

As had been identified in the analysis section, reasons for the delays of the project were found to be rooted in an insufficient absorption of especially technical information. This was also reflected in the process phases which comprised the recognition of the value phase, the acquisition, and the application of the technical information. Hence transformation activities were lacking in these external learning activities. Similarly to a shortened absorption process, iterations neither were performed completely, as due to the lack of transformation activities, application could not be performed correctly and only in late phases of the project a complete absorption could be performed for the technical information. Neither could overlaps of single phases be observed in the technical absorption. Similar to the technical absorption, in the market related absorption external information was also absorbed according to a three fold process, including the recognition of the value, the

acquisition, and application of the information. Neither transformation of the internal knowledge nor transformation of the external information was present to a sufficient extent. Iterations of the process could be observed only with regard to customer inquiries, other market absorption activities were not repeated. Parallelism of stages neither was identified to having been present. Hence overall, both processes showed similar patterns as depicted in the following figure:

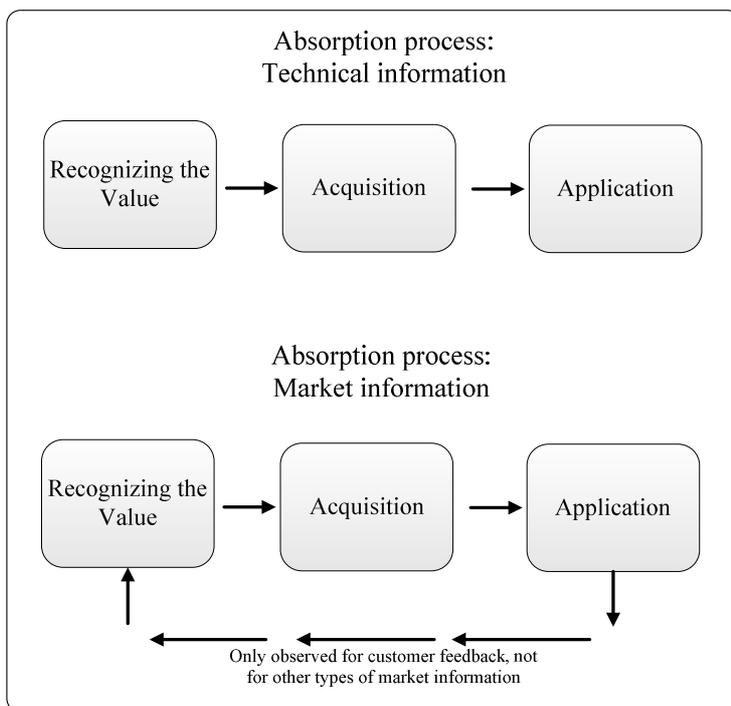


Exhibit 66: Absorption Process Technical & Market Information Inno-Card

Regarding the relation of the ACAP process with the general innovation process also different findings than in the other case study have been made. The ACAP process lagged behind the general innovation activities. Relevant technical information was sourced too late and caused flaws in the design of the service concept and the necessary technical infrastructure. In addition, no considerable iterations were observed for the ACAP or the general innovation process. Both unfolded in a rather linear fashion, except for some market related information which was sourced at the end of the project again. This pattern of the relation of the ACAP process with the general innovation process is visualized in the subsequence exhibit.

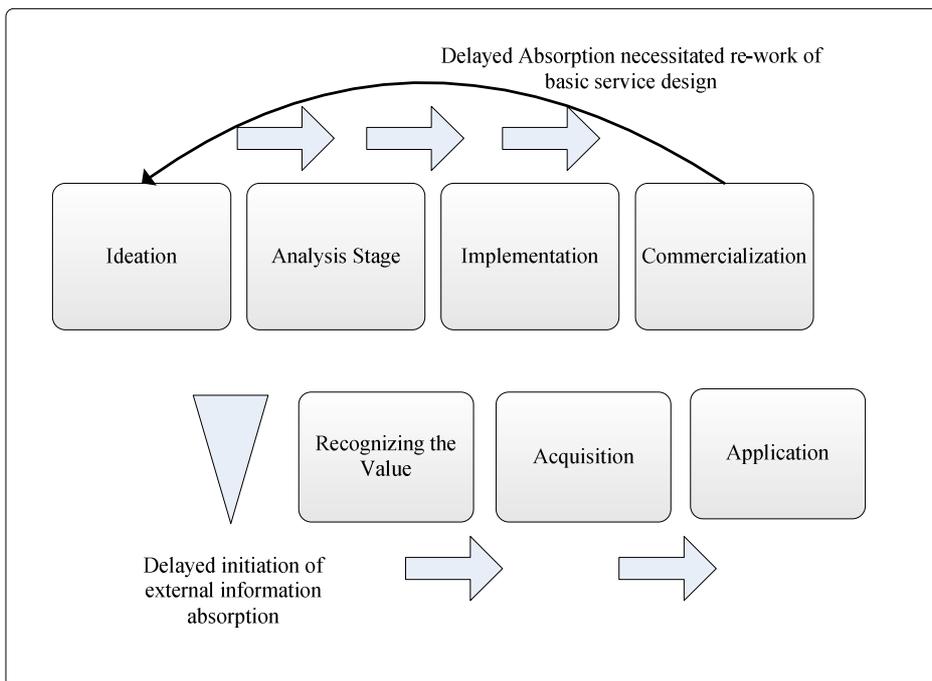


Exhibit 67: ACAP and the Innovation Process (BankXY)

6.4.2 Inno-Card: Facilitators and Inhibitors

Also several facilitators and inhibitors for the absorption of different information for the Inno-Card project were identified.

Internal **power relations** played an important role in order and facilitated to focus the internal resources towards recognizing, acquiring, and applying external information within the radical innovation activities. **Cross boundary expertise** among project members from different departments lacked particularly with regard to the understanding of legal aspects. This gap in understanding the different expertise areas needed to develop the new Inno-Card service inhibited the absorption of external information as inadequate technical information was sourced.

Such lack of cross-boundary expertise could have been caused to a certain degree by the equally low degrees of **social integration mechanisms** at BankXY. Important experts inside the bank were informed very late about the detailed activities in the Inno-Card project which hampered particularly the transformation of the externally sourced technical information. Gaps in **prior knowledge** also inhibited at BankXY the absorption of external information. In more detail, particularly the lack of service development expertise and lack of knowing about potential card-

customers and -markets inhibited the absorption activities, as future information needs were not anticipated.

Notwithstanding the inhibiting effect of the above factors, the absorption activities benefitted from the long-term relationship with the **external network** and particularly with the card-processing firm. The **nature of the externally sourced information** acted both as a facilitator and inhibitor for the absorption activities. To start with the facilitating effect, here relatively low levels of ambiguity of the externally sourced information supported the ease with which such information could be absorbed by BankXY's internal experts. Further, complexity of the external information did not affect the absorption activities considerably, as internal experts were used to deal with complex information. Yet, the implicit nature of much externally sourced technical information demanded extra work-steps, as such information could not be readily applied in the service development activities.

One of the most visible inhibitors of the successful absorption of external information, which subsequently hampered overall service development, constituted the lack of project members' and managers' **mindset** for change, or in other words, their awareness that the Inno-Card project would constitute a radical project, which reduced the willingness of organization' members to learn from the externally available knowledge.

While the lack of awareness of the degree of newness of the Inn-Card inhibited the absorption of external information, the relatively small **firm size** of the BankXY both facilitated and inhibited absorption. Particularly in the phase recognition, acquisition, and transformation the small firm size was observed to act as an inhibiting force as due to this, internal resources and amount of internal expertise was reduced. However, once external information was acquired and transformed, its application was rather facilitated by the small firm size. This was observed to having been due to the reduced amount of internal infrastructure, and the reduced amount of people affected by the novel knowledge.

Finally, the lack of **protection mechanisms** in the service sector partially inhibited the absorption of external market information. In more detail, BankXY's management did not engage in a wide pre-market test of its novel Inno-Card service, partially due to the fact that once the service would be open to a wide array of external people, its novel aspects potentially could lurk out to BankXY's competitors which could reduce the overall profitability of the service due to timely imitation.

Hence several factors inhibited the absorption of external information, while some others acted rather as facilitators. While BankXY's basic absorption process was flawed already with regard to the incomplete process-stages and the reduced iterations, the partially inhibiting context in which the absorption was conducted aggravated the situation for the bank further. The following table summarizes the influence of the different factors observed.

Facilitator / Inhibitor	Characteristics	Impact on absorption during Inno-Card
Prior Knowledge	Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge)	Inhibiting: Limited scope of prior „know about“ knowledge, limited service development „know how“
Nature of external knowledge	Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data)	Facilitating: Low degree of ambiguity No effect: Rel. High degrees of complexity Inhibiting: Increased amount of Implicit external information
Mindset	Appreciating external information (in contrast to „not Invented here syndrome) Being aware of the need to adapt	Inhibiting: Lack of awareness of novelty of new service reduced willingness to accept external information and reduced absorption quality
Social Integration Mechanisms	Structures supporting the sharing and interconnectedness of different internal expertise areas	Inhibiting: Very late communication with important internal experts caused incomplete absorption of technical information
Cross Boundary Expertise	Complementary functions within the organization ought to be intermeshed redundancy in expertise	Inhibiting: Little overlap of project members' expertise which inhibited understanding and communication during absorption
Power Relations	Relationships involving the use of power and other resources by an actor to obtain his preferred goal	Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information
Network of external partners	Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship	Facilitating: Quality of relationships allowed for more complete information access and understanding
Firm Size	Number of employees , market position in relation to competitors	Facilitating & Inhibiting: Limited amount of available internal expertise & resources inhibited acquisition and transformation, while reduced complexity of routines facilitated application
Intellectual Property Rights	Low degree of protection mechanisms available to shield service innovation from imitation	Inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests

Table 14: Facilitators & Inhibitors BankXY

7 Cross Case Analyses

In this section the findings from the three single cases are being grouped together and compared across each other in order to perform “pattern matching” with the goal, to increase the validity of the findings from the single cases (Yin, 2003).

Firstly, the technical and subsequently the market related absorption processes are compared across cases and between successful and non-successful radical service innovation. In the different cases, the observed absorption activities were directed most of the time to both market and technical related information. While the market information frequently comprised information about customer preferences, competitors, and market analyses, absorption of technical information either concerned legal or technology-related information in order to design the infrastructure and information technology for the new service offerings.

Secondly, the facilitators and inhibitors of the general absorption activities are compared across radical, incremental, successful and struggling cases. Thirdly, a brief comparison of the overall innovation portfolios of the three case organizations is performed. This last section focuses on the analysis of the strategies for successfully developing both incremental and radical innovations (Tushman & O’Reilly, 1996) and provides insights as to how the innovation strategies of the three organizations are characterised by an “Open Innovation” strategy (Chesbrough, 2006)

7.1 Cross Analysis of the Absorption Process

7.1.1 Technical Information: Successful Radical vs. Struggling Radical Projects

In the two successful radical innovations “Wohnriester” and “Tucuentas”, a five stage process was observed. The absorption started with the recognition of the value of external information. This recognition was either facilitated through external players or internal staff identifying an opportunity. Hence, this first phase served as an initiating impulse for the organization to engage in further steps to acquire more information. In the here observed cases, the very first recognition of the value of external information was closely related to the initiation of the whole innovation project. In later phases typical instances of the recognition of the value phase constituted the conscious need for more information in areas in which insufficient information was available. After this first awareness of the need to look outside for technical information had been done, intensive

acquisition of technical information took place. Here, multiple sources of information were identified and used by internal experts of the banks. In both the Wohnriester and the Tucuentas project, the acquisition was often performed by specific departments, which had the necessary expertise in order to know where to look for the adequate information.

After the technical information was acquired, the in the acquisition already involved internal experts continued to play an important role also in the subsequent stage of “transformation of the internal knowledge base”. The priory acquired information was of such a novel character in both radical projects that the internal experts could not understand the novel information to a full extend. More specifically, experts lacked sufficient know-how in these novel domains in order to competently translate the novel information to others, or to apply it to the service development by themselves. In consequence they started to either extend their knowledge base. In the case of the Wohnriester project, expertise about novel legal domains was added to the existing expertise sets, while in the Tucuentas project, particularly expertise about mathematical models for certain parts of the new service were added to the experts knowledge-base. Only with this basic transformation of the experts’ basic expertise sets, the complete understanding of the novel information became possible.

In a fourth step, after experts had become knowledgeable about the new domains, the transformation of the externally sourced information was initiated. This fourth phase comprised in both successful radical projects the translation of the priory acquired information to other project members. In both successful cases, experts from other departments, or even the project leader, were not trained in understanding in-depth the consequences highly technological or legal information had for their service development project. Consequently, the experts had to transform the novel information in a way which allowed its application by other project members. Translation of the technical information was mostly performed both in documents and meetings. Further, such translation activities happened via a constant communication between the “translating” experts and the other project members. After the newly acquired information had been successfully transformed in order to become understandable by other project members, the last observed phase, i.e. the “application” phase, was initiated which comprised the use of this information in the development of the novel service.

This five-fold process structure, in addition, was iterated several times during the development of the two successful projects. In more detail, information was recognized as being relevant, was then acquired, transformed and applied several times during the project. Related with this multiple

absorption activities was the observation that at times, certain absorption activities overlapped considerably. Especially, the acquisition of new information and the application of priority acquired information overlapped several times in both projects. This constant influx of new information demanded from both observed firms to design the new service in a flexible manner, meaning that the development of the new services was adept enough to incorporate new insights even in later phases of the development. At BankPro this was accomplished via the development of several alternatives in parallel. Although this implied that some work would have been obsolete at the end, as only one alternative would be included in the final service design, the service development could be adopted to new information even in later phases of the project. While in the Tucuentas project not the same approach was chosen, the project team maintained close communication loops and concentrated on a modular development approach in order to remain adept to novel information influx during later phases of the project.

Besides these challenges in the parallel pursuit of acquiring novel information and applying priority absorbed knowledge, this approach was identified as having been beneficial for the two development projects. The parallel absorption phases of acquisition and application helped to not delay the development and hence were positive especially with regard to the time to market of the projects. This became evident especially in the Wohnriester project, where a fixed deadline existed to which the project members had to adhere. In addition, in both projects latest changes in the market or technology contexts could be included in the final service for a longer period of time. In addition, due to the parallelism of information acquisition and application, project members in the need for new information could resort “in time” to members acquiring novel information in order to update them about their informational needs and hence to improve the relevance of the acquired information for the overall development project.

In comparison to these two successful radical projects, in the example of a struggling radical development project, several stages of the in the other two cases identified process phases were missing. To start with, BankXY got aware of the value of external technical information and subsequently identified an external partner firm in order to access the needed information for the Inno-Card development. After this, the project team engaged in the acquisition of the needed information in order to later apply it in the development tasks. Yet, while experts from the external firm transferred the necessary information to BankXY, for a long period of time no internal IT experts got involved in these meetings. In fact in these meetings with the external experts only general managers were involved, which led to an incomplete understanding of the highly technical

relationships. Due to this, only little transformation activities could be identified. Without the internal IT-experts involved, the technical information was not fully understood and subsequently could not be applied to service development. Only towards the end of the project, internal IT-experts got involved in the project, in order to gain better understanding on how to create the infrastructure for the Inno-Card. In consequence to this lack of transformation activities, the technical realization of the necessary infrastructure for the new service was obscured and resulted in a considerable delay of the market launch. In addition to the lack of transformation activities, no multiple, complete cycles of the technical absorption process had been observed, not to mention any parallelism of absorption phases. The following figure juxtaposes the three observed processes for technical information absorption.

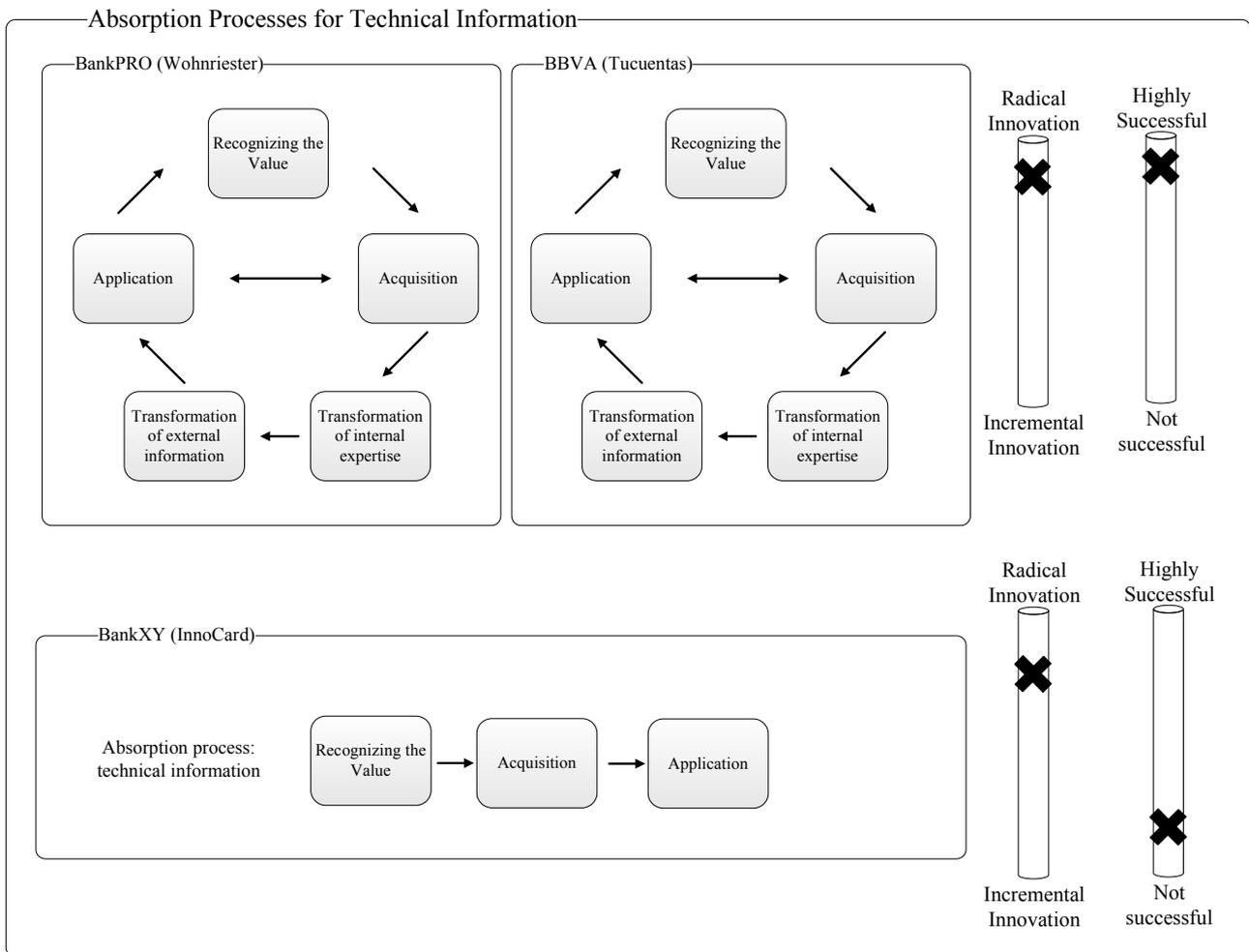


Exhibit 68: Absorption Processes for Technical Information During Successful and Struggling Radical Innovation

Hence, as the delay of the struggling case was identified as being linked to the lack of transformation activities, the process observed in the two successful cases has been identified being

a more adequate way to absorb external technical information. Also the dynamic pursuit of the absorption activities, meaning that novel information was being absorbed several times during service innovation, was identified as a facilitator for the two successful projects, while it was missing in the Inno-Card project. Finally, the parallelism of different absorption activities also helped in the two successful projects to speed up information acquisition and application. As a result, for the technical information, a five fold process including the stages recognition, acquisition, internal transformation, external transformation, and application were identified as adequate process phases. In addition, data suggests that this optimal five-fold process is being iterated during the pursuit of the innovation project with considerable overlap among these iterations in order to align information acquisition and application in an optimal way.

7.1.2 Technical Information: Radical vs. Incremental Projects

While until now only the radical service innovations were compared, in the following a comparison of absorption activities in radical and incremental projects follows. As had been presented in the above, the successful radical projects comprised an absorption process for technical information with five sub-phases which iterated in a partial parallel manner several times during the development process.

As regards the technical absorption in incremental innovation projects, here, only in one of the two presented projects, sufficient amounts of technical information absorption was observed in order to analyze the process. This was due to the fact that in the eConta Premium project, technical realization was handed over to a full extent to an external supplier. However, in the Onlinebusiness project at BankPro, technical information absorption activities were observed.

After BankPro had recognized the need to learn more about how to expand its online services to its client, internal experts engaged in learning about how such novel online features could be realized by taking into account the numerous regulations needed to consider for design and realization of online financial services. Hence, after the recognizing of the value phase, organization members started to acquire detailed information for the realization of the project. Similar to the radical projects observed, also here internal experts needed to translate the acquired information to other project members in order to facilitate the subsequent application. Yet, because of the fact that the acquired information was not too distant from the expertise areas of the bank's experts, no

transformation of the internal knowledge base was observed to having taken place within the absorption activities.

In addition, the absorption activities were present mostly at the very beginning of the project. It was identified that the search for external information relevant to the project was performed in a non-iterative nature contrary to the radical projects. Rather, after external information had been acquired and transformed this was taken as the main basis for developing the service.

This difference between the radical and incremental projects pertained to the difference in the nature of the externally sourced information. As no radically new elements for the service development needed to be considered, absorption was directed rather at long-standing and already existing facts, which existed already but were of no high relevance to BankPro prior to the project. Hence, the initially sourced information was sufficiently reliable and no updated information due to potential changes in the external regulations needed to be acquired during later phases of the project.

All in all, major differences in the process between incremental and radical projects studied here became most visible in the less dynamic and more sequential flow of the process as well as the lack of internal transformation activities in order to understand the priory acquired information.

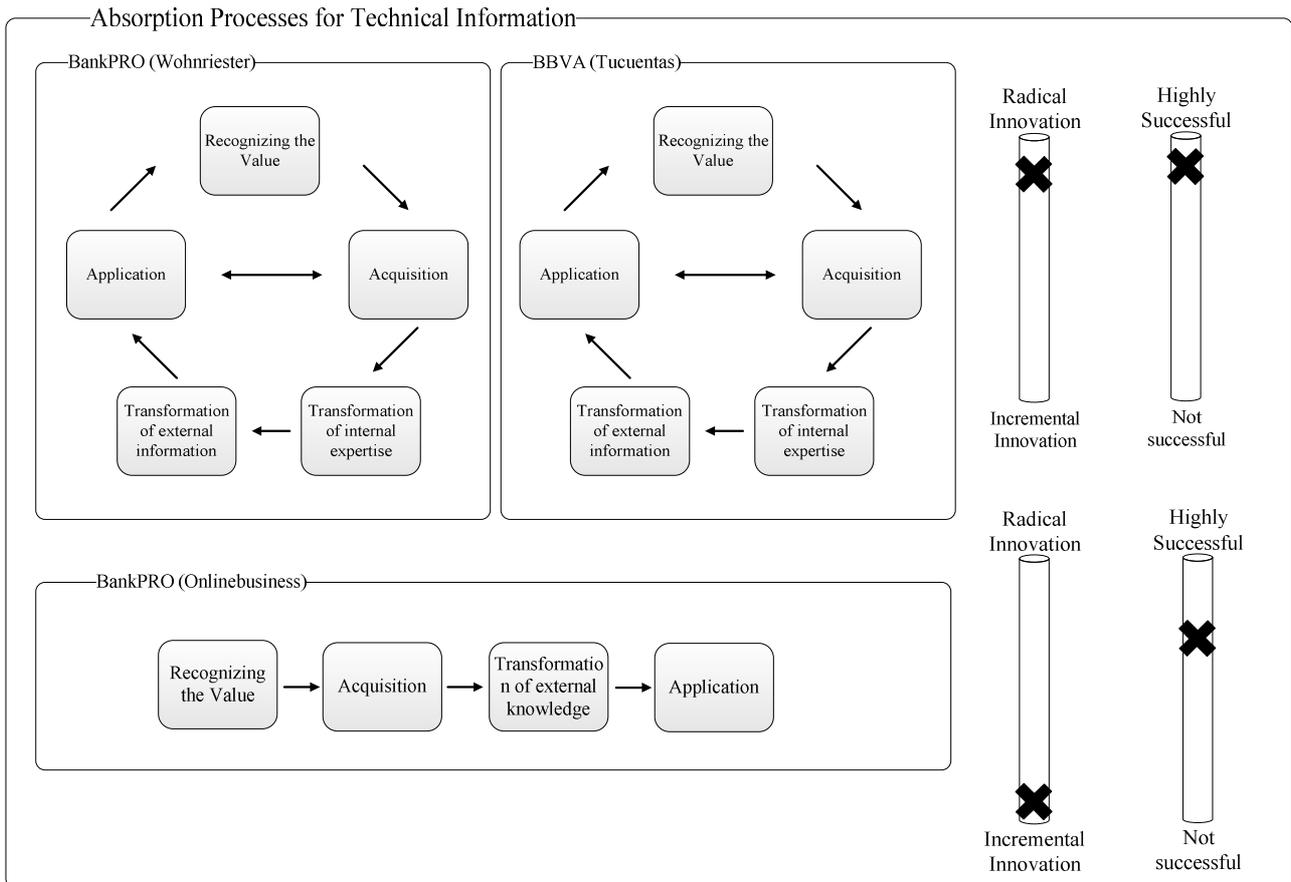


Exhibit 69: Absorption Processes for Technical Information During Successful Radical and Incremental Innovations

7.1.3 Market Information: Successful Radical vs. Struggling Radical Projects

Besides absorption of technical information, also market related information was absorbed during the different projects. Firstly, observed differences between successful and struggling radical cases shall be reported.

In general, absorption patterns of the successful projects resembled many patterns which were reported already for the technical absorption process. After the need for novel external market information was recognized, e.g. with the help of constant market monitoring, novel information was acquired subsequently. The acquired market information concerned in the here observed cases information on both customer needs and preferences, as well as more general market information about competitor’s offerings and general development trends. In all observed cases, such acquired information was to a large extent of a quite sophisticated nature, as surveys of statistical analyses of the customers and markets were not directly applicable to the service development activities. Consequently, internal experts transformed the acquired market information and provided to other

project members summaries and explanations on the basis of the acquired information. Yet, although in the technical information absorption, internal experts needed to update their own expertise areas in order to understand the newly acquired information, in the market information absorption, this transformation was not observed. Data suggested that the acquired market information was of similar character as in prior market research activities, meaning that no new methodological expertise was necessary to understand the novel insights. Hence rather the content but not the nature of the external information was new to organizations. Due to this, existing expertise of the market research experts was sufficient to understand and translate the insights to other project members.

Similar to the technical absorption, also market information was sourced several times during the projects and hence an iterative market absorption process was observed. In addition, at BBVA, the iterations of the market information absorption were of such a kind that some information was sourced in parallel to the application of priory sourced information. Due to this, changes in the external market situation could be incorporated on a more timely basis, and feedback between the experts acquiring information and those who applied priory sourced information was facilitated.

In comparison to the process observed in the successful cases, within the struggling Inno-Card project, a reduced process was observed. The bank sourced information about customer preferences and market potential as well as potential marketing and positioning strategies of the Inno-Card in the form of a business case. All this information was sourced via an expert market research organization which was knowledgeable in the credit card market. Here, for two reasons, no transformation of the externally acquired market information was observed. Firstly, most of the interpretation and translation activities related to the customer preferences were performed outside the bank by the external consultants. These presented to the project members inside the bank their results of the market study. Due to this, no transformation was performed. Secondly, information embodied in the business case could not be transformed by the internal experts, as the internal experts lacked background information as to why the external consultants came to certain conclusions and market potential assessments. Caused by this lack of understanding, external consultants needed to be invited for an additional time in order to translate the in the business case embodied information to the project members at BankXY.

Equally, only little iteration was observed. Regarding the absorption of customer preferences, here two iterations were observed, as at the beginning and at the end of the project customers were asked

to provide input to the service development. Yet, in the absorption of the market information embodied in the business case, no iteration was observed, as only one complete cycle was performed, after the consultants translated the business case information to the project members. After this, no additional information was sourced again regarding this.

Hence major differences in the absorption process observed during the struggling and successful service innovation pertained to the transformation stage and the reduced iteration of the process over the project life span. As these differences paralleled those identified for the differences between successful and struggling radical innovation in the technical absorption, these two major process differences seems to be relevant to consider for radical innovation projects. The following figure shows the different market related absorption activities in the radical projects presented in this study:

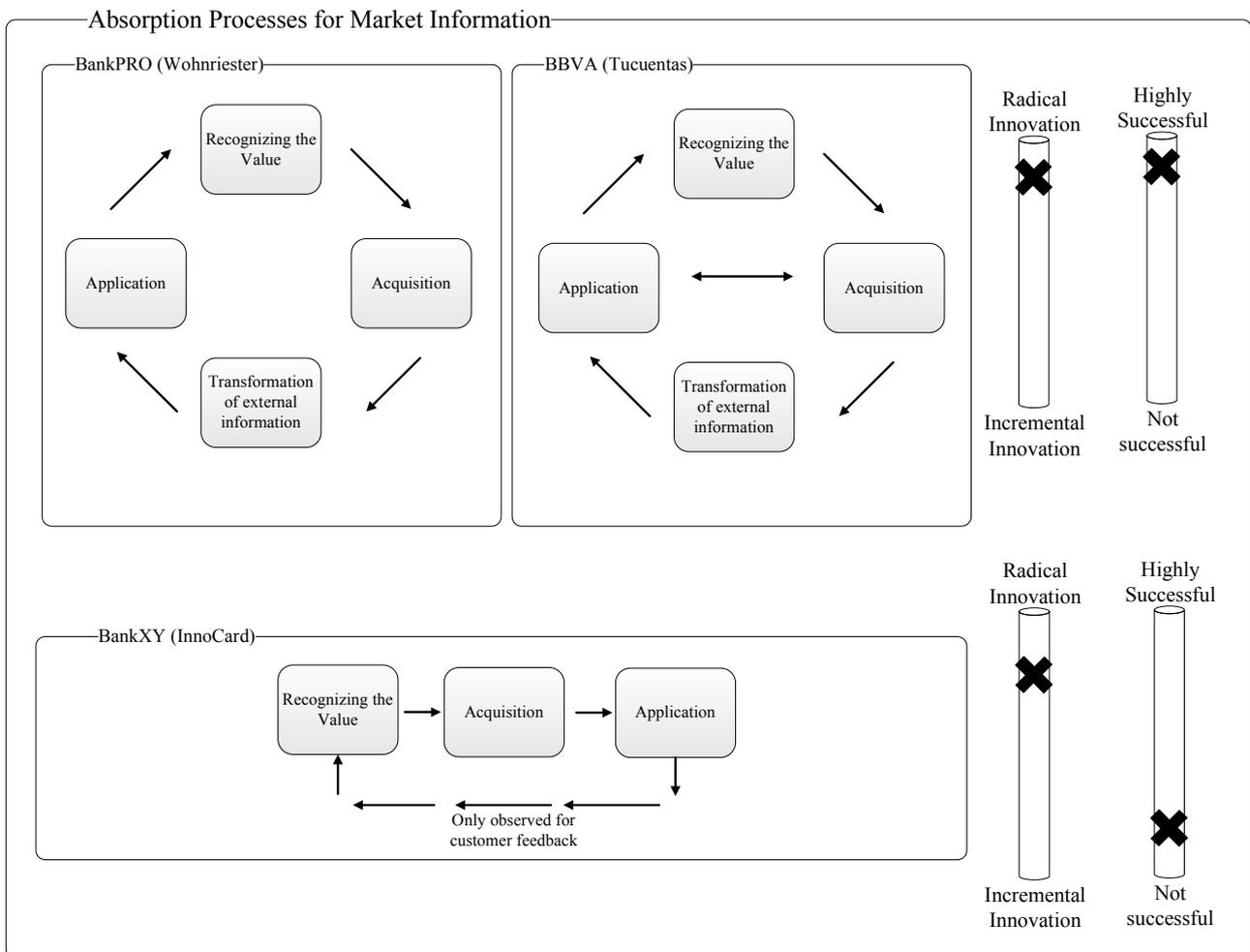


Exhibit 70: Absorption Processes for Market Information During Successful and Struggling Radical Innovation

7.1.4 Market Information: Radical vs. Incremental Projects

While between successful and struggling projects the absorption process differed mostly in terms of the transformation phase and the process dynamics, in the comparison of successful radical and incremental market information absorption, a different picture emerged. Here similar processes were observed to having taken place, although the degree of newness differed considerably. In the two successful radical projects, as well as in the two observed successful incremental project, market information was absorbed according to a four fold process. While the recognition of the value of market information initiated the subsequent acquisition, in each process the acquired information was transformed and then applied to the service development. Also regarding the dynamics, all four observed processes iterated several times during service development. Only within BBVA's tucentas project these iterations were performed partially in parallel which resulted in an overlap of certain absorption phases. Also during the incremental projects, customer or market related information was updated via repetitions of the absorption process in order to be as close to the latest market changes of customer preferences as possible.

It was further identified in all four projects that market related information absorption was firmly institutionalized in the two organizations. For example in the Wohnriester and the Onlinebusiness project, standardized market research studies were performed in order to reveal market potential, competitor behaviour and other information. Due to this, incremental and radical projects benefited to a similar extend from these institutionalized market information absorption routines. At BBVA, also here market research activities were performed on a highly professional level. Specialized departments took care in constantly conducting market research studies and to perform individual requests for innovation projects. Both Tucentas and eConta Premium benefited to a certain extend from continuous market scanning and research activities from these departments.

Hence, in both organizations, market research was a common and continuous activity which resulted in the fact that all innovation projects, regardless whether incremental or radical benefitted from a similar information absorption process. The following figure contains the four market information absorption processes for the different projects presented.

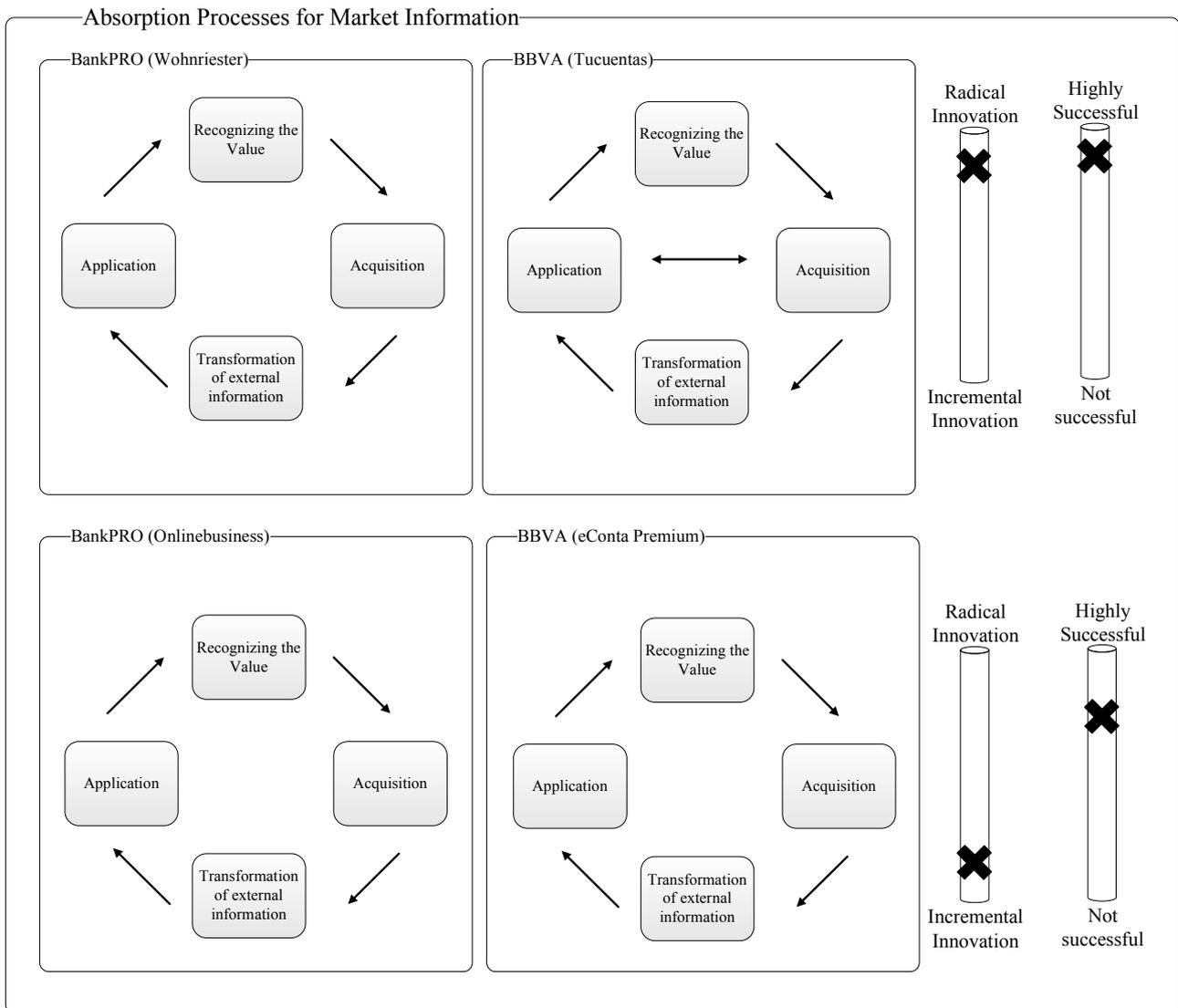


Exhibit 71: Absorption Processes for Market Information During Successful Radical and Incremental Innovations

7.1.5 Interplay Between Market and Technical Absorption Processes

Besides the identified phases and the within-process dynamics of the absorption processes of market and technical information, during radical and incremental innovation, also “across-process” dynamics were observed which shall be compared in this section.

In more detail, particularly in the radical projects, interactions between the absorption of market and technical information have been identified. It was observed that the absorption of market information benefitted from the availability of information about the latest technical options, relevant for the service development. With the support of this knowledge, market information could be sourced which took into consideration the latest technical options for the service design. Vice versa, market information supported the absorption of technical information, too. Here, rather information about the desires and familiarity of service clients in using online-technology supported project members in searching for adequate external information and the correct application of the already acquired technical information in the subsequent service development. Such interaction between market and technical absorption was highly present in the radical innovation projects. In the incremental projects, only in the Onlinebusiness project both absorption processes were present, yet in this single case, also some interactions were observed, although at a lower level. Yet, when juxtaposing the successful radical with the struggling radical projects, a lack of such interaction in the struggling “Inno-Card” project crystallized which provided insight into the potential benefits of such concurrent synchronization of the market and technical absorption processes. The following two exhibits provide an overview of these observed interactions.

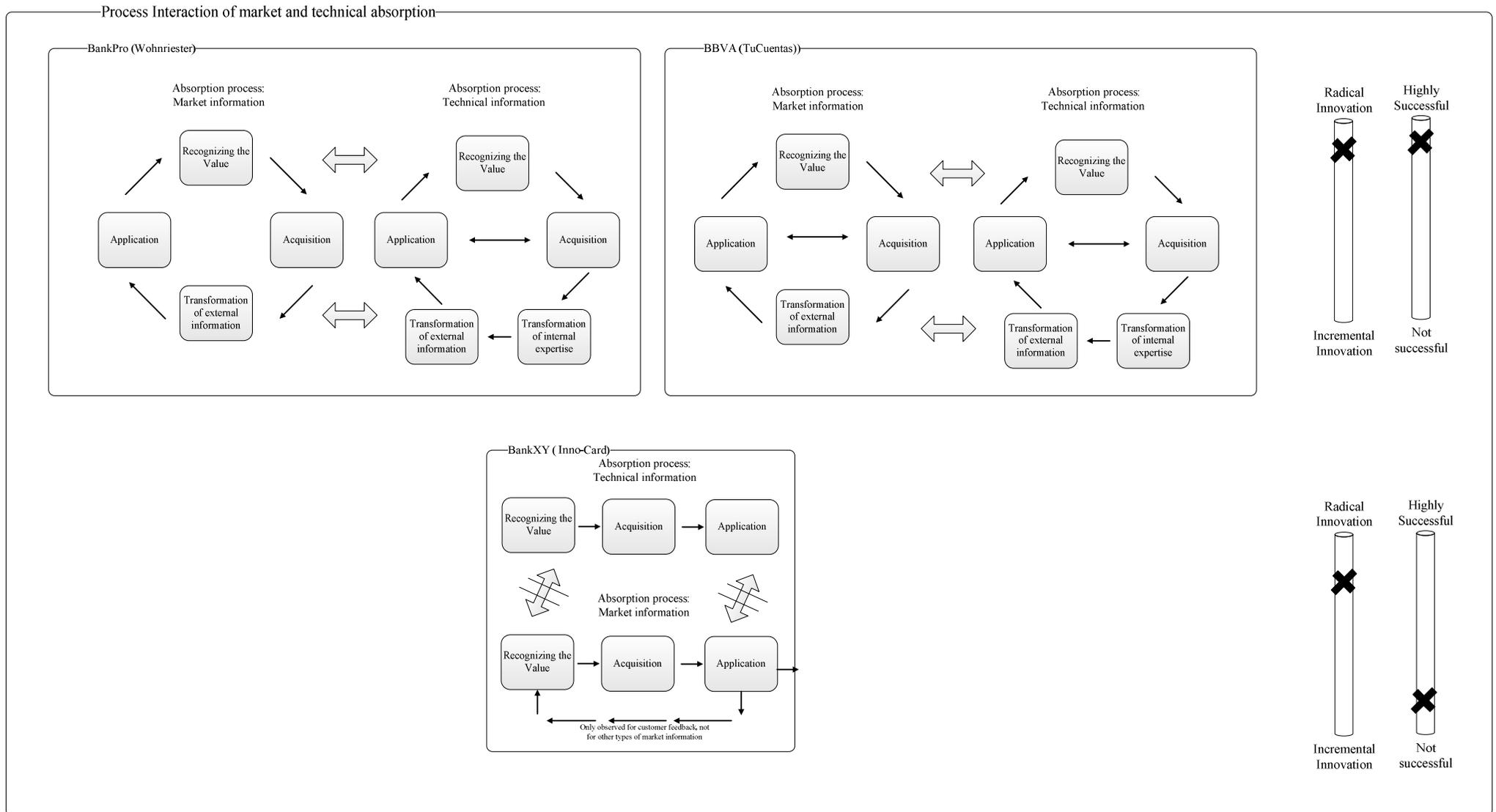


Exhibit 73: Inter-Process Interaction of Market and Technical Absorption During Successful and Struggling Radical Innovation

7.1.6 ACAP and the Innovation Process

As in the preceding sections, the ACAP process was compared across cases, in this section its relationship with the general innovation process is compared across the different innovation projects. To start with, the patterns of the innovation processes need to be analyzed first. Here, single case analyses revealed that different innovation processes were at work in the different case organizations. At BankPro, a six-stages development process was identified which was formally institutionalized within the organization. Further, at BBVA a similar innovation process was observed, which comprised overall eight different development phases. In contrast, at BankXY, no structured development process was defined or executed. Rather the development project observed at BankXY followed the basic tasks of common development projects, including idea phase, analysis, development and launch related activities. Hence, more or less defined innovation processes operated inside the three case organizations. In addition, these differed also when compared across incremental and radical projects. For the incremental projects, rather linear processes were identified. In contrast in the radical innovation project, more dynamic processes were observed which iterated several times. These iterations were observed to be due to fast changing market and technological contexts which necessitated the constant updating of the service concept and its infrastructure. Hence in the radical innovation projects, the innovation processes could be described as innovation cycles more appropriately. The following exhibit visualizes these process patterns.

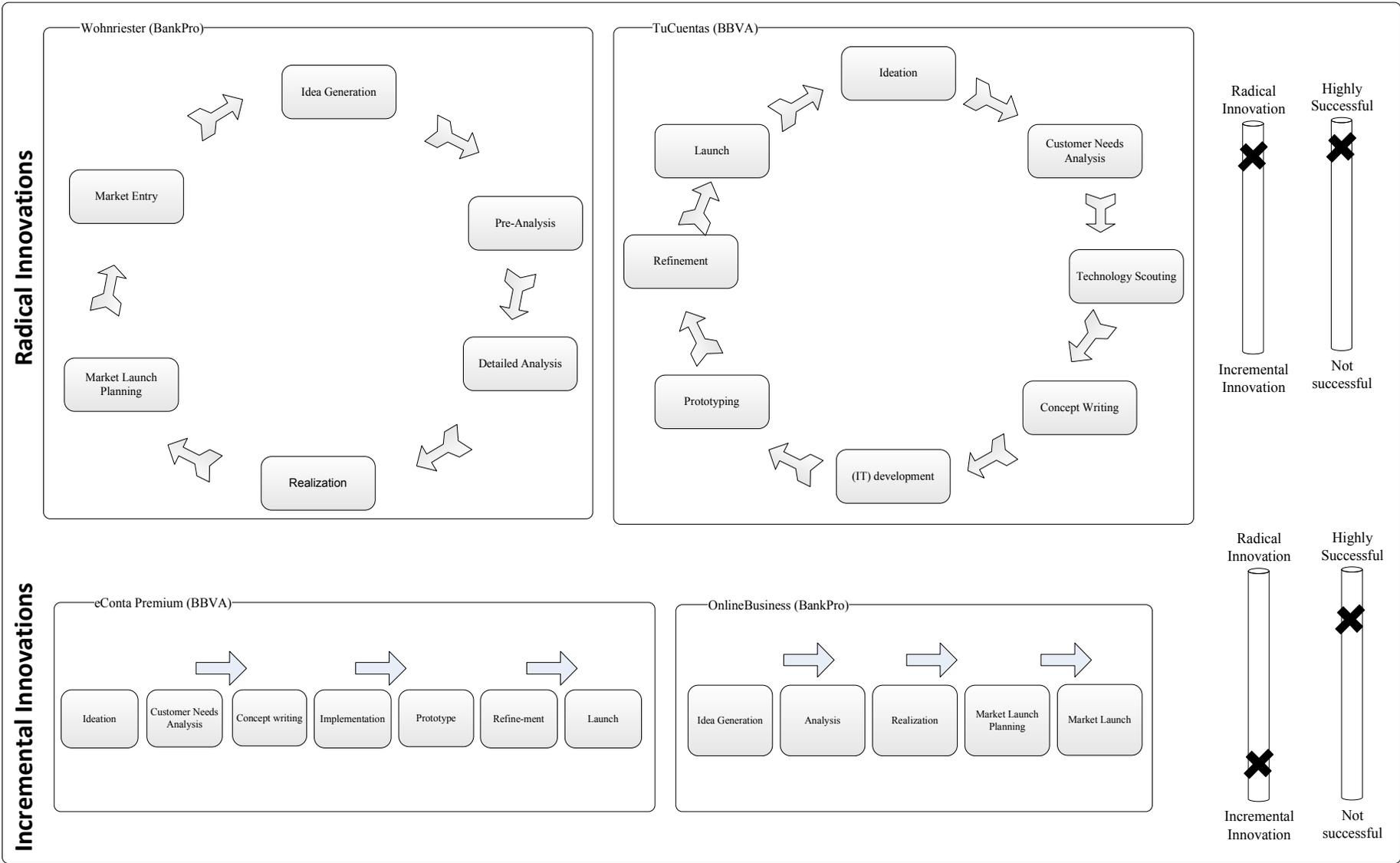


Exhibit 74: Innovation Processes for Successful Radical and Incremental Innovation Projects

However, these cycling patterns of the innovation processes during radical innovation were only observed for the successful innovations. In the struggling case, such purposive iteration was not present. Project management at BankXY seemed to be not aware of such dynamic approaches to innovation. Rather, late changes to the service concept were made when implementation already started. Yet, these late changes were unanticipated and were rather forced to take place after errors in the original service design had been spotted, which were due to insufficient absorption of external information. Hence, no flexible iterative pattern was identified regarding the Inno-Card innovation project. Rather the process was envisaged to be performed in a linear fashion but due to insufficient absorption in earlier phases of the project, errors occurred which necessitated again to change the service concept very late in the project. In contrast, in the successful radical innovation projects, management was aware of the unstable external environment which led to a basic acceptance and awareness that changes could appear even when the service development would have been nearly finished.

An additional difference between the successful and struggling radical cases concerns the formality of innovation processes. At BankPro as well as at BBVA innovation activities were clearly defined and were grouped in specified departments of the bank. At BankXY, however, such institutionalization of the innovation process could not be observed. Here basic project management approaches were applied in order to manage the development of the Inno-Card project. As a response, the innovation process which was identified followed the generic phases of a development project and was not defined a priori to the project start. These differences in the innovation process patterns are visualized in the next exhibit.

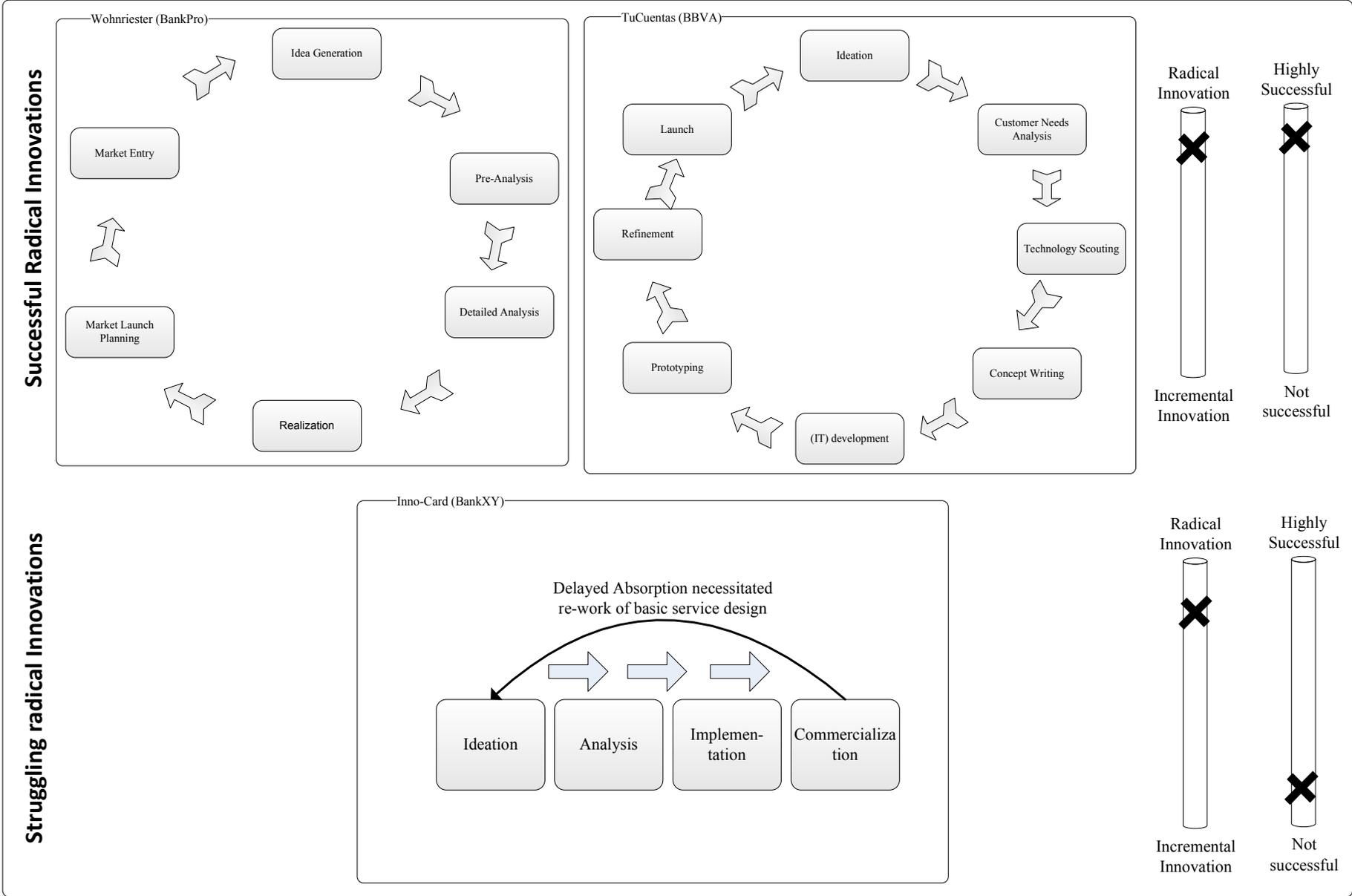


Exhibit 75: Innovation Processes for Successful Radical and Struggling Radical Innovation Projects

After the general development process has been reviewed across the different cases, now the relation of the ACAP process with the general development process shall be compared. Cross-case analyses revealed that in the successful cases the absorption process paralleled the general innovation process phases. This meant that in early phases of the development project also the initial phases of the ACAP process were performed, while towards the end of the processes, also the last phases of the ACAP process, e.g. the application of the externally acquired information was performed. During the middle stages of the development projects, i.e. during the conceptualization of the service design and infrastructure, the transformation of the internal knowledge base as well as of the external information was most prevalent. However, during radical projects, these phases were not performed only once during the respective innovation projects. In fact, due to the fast changing market conditions and technical solutions available, phases were constantly repeated. For instance at BBVA and at BankPro the service concept definition was not finalized until very late in the project in order to remain flexible in case changes would become necessary in later phases of the projects. Consequently the ACAP process paralleled these iterations and external information was absorbed several times again. In these radical projects, sometimes the absorption of new external information triggered the moving backward or forward of the innovation process, while sometimes the institutionalized innovating process phases, such as market testing, triggered a new iteration of the absorption process. Hence, at times ACAP triggered iterations of the innovation process while at other times the innovation activities necessitated a new round of external information acquisition. Further, the parallel pursuit of the ACAP and general innovation processes was observed only in the successful projects. In the struggling project, the ACAP process lagged behind the alleged progress made in the general development process. In more detail, the service concept was prepared on the basis of only little external information absorbed. This resulted in a misspecification of the service concept needing re-work during later stages of the project. Hence, when comparing the successful with the struggling innovations, synchronized and paralleling ACAP and innovation processes were key to successfully develop new services. A lagging ACAP process resulted in misspecifications of the service concept as not sufficient learning of either the external market or external technical options was done prior to finalizing the service concept. The following exhibit visualizes these cross-case results.

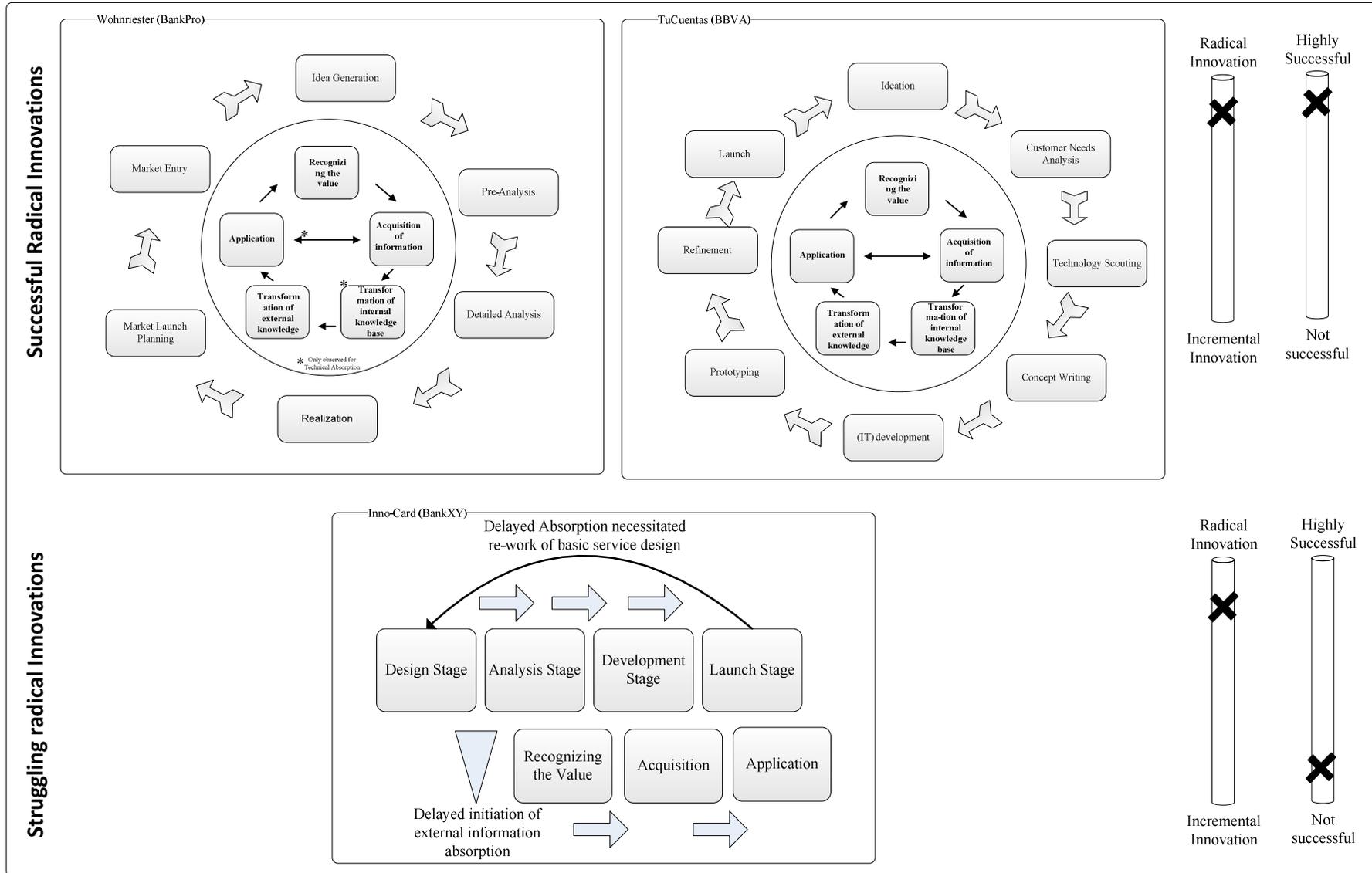


Exhibit 76: ACAP and Innovation Process (Struggling Radical versus Successful Radical Innovation Projects)

Regarding the incremental innovation projects, a different picture emerged than was identified for the radical projects. While it was also observed that the ACAP phases paralleled the innovation process, iterations were only observed to having taken place regarding some elements of the ACAP process while barely any iteration was identified regarding the general innovation processes. In more detail, the development of the incremental projects was performed in a highly planned and routinized manner, meaning that many activities were known already prior to the start of the actual project. Due to this experience in developing these projects, and due to the mostly highly stable technical and market environment in which these incremental innovation were developed, the innovation process did not need to iterate several times. Regarding the ACAP process, however, some iteration could be observed. These took place mostly regarding the absorption of market information and were triggered by the general innovation activities. As was observed in the different projects, market information was sourced at the start of the projects and also at the end of the projects in the way of acquiring customer feedback on the prototypes of the service, or via constant market monitoring. Interestingly, while market information was absorbed also during later stages of the incremental innovation projects, these did not affect the overall pursuit of the innovation projects and hence did not trigger potential iterations of the general innovation process. This was due to the fact that either the customer feedback did not necessitate large changes to the service concept, or the market monitoring did not result in a significantly changed market environment which would have necessitated changes made to the service concept or infrastructure.

Hence, while information was absorbed several times, this was rather done in order to confirm priority made insights and did not result in novel knowledge which would have influenced the overall innovation development activities.

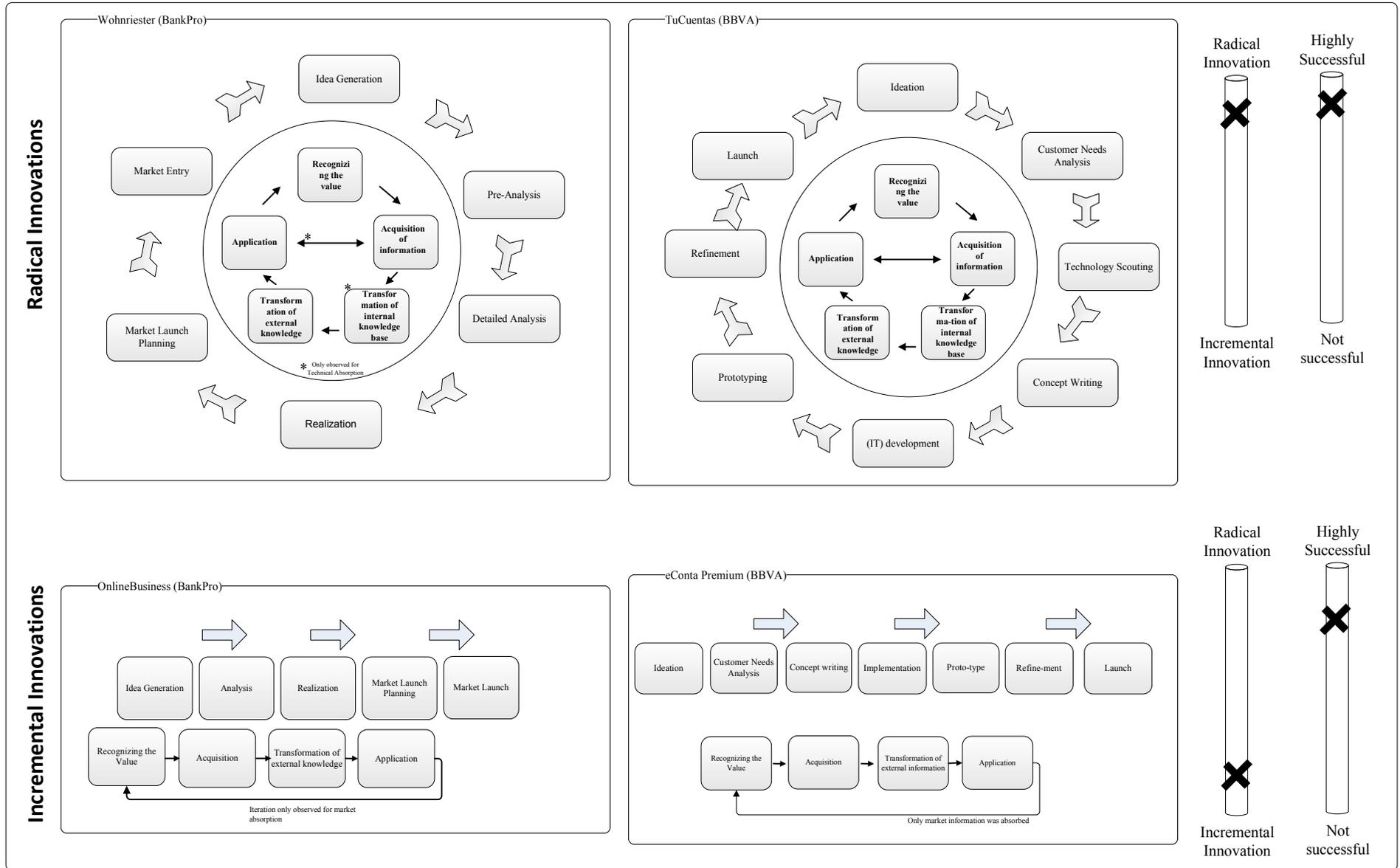


Exhibit 77: ACAP and Innovation Process (Radical and Incremental Innovation Projects)

7.2 Cross Analysis of Facilitators and Inhibitors

After the absorption process was compared across cases in the prior section, now the different identified inhibitors and facilitators of the absorption process are being compared, across successful and struggling radical projects, and across successful incremental and radical projects.

7.2.1 Successful Radical vs. Struggling Radical Projects

To start with the radical projects, here, again, most of the identified factors showed similar relationships in the two successful projects of BBVA and BankPro. To start with the **mindset** of the project members, here a strong awareness of the novelty of the project existed, which facilitated the recognition of the value of novel information as project members were aware of their need to search outside for novel information. In contrast, in the struggling case, a rather different mindset was identified. People rather lacked awareness of the magnitude of change necessary in order to develop the Inno-Card service. Due to this different mindset, reduced effort was put into acquiring and understanding external information.

Power relations with actors in- and outside the firm supported the absorption of novel information, as these actors either directed attention to specific topics on which the absorption subsequently could be focussed on, or they made resources available to the project due to their awareness of the relevance of the innovation projects. This facilitating role was also observed in the struggling case as helping to obtain resources for the absorption activities.

In addition to these factors, also the **cross-boundary expertise** of the project members influenced the absorption activities in all three cases. In the two successful cases it was identified that project members were – to a certain degree – also knowledgeable about areas outside their core-specialization. For example in the Wohnriester project, marketing employees had already prior to the project start experience in dealing with legal or mathematical topics which helped them to understand the newly acquired information out of these domains more easily. In the case of Tucuentas, here, similar overlaps in expertise regarding information technology was observed. In contrast, in the Inno-Card project, a lack of cross-boundary expertise was observed, in particular regarding legal aspects. Possibly, cross boundary expertise was high in the successful cases due to existing opportunities to share information and frequent discussion and involvement of different departments in innovation projects. This is derived from the fact that in parallel to the high cross

boundary expertise at BankPro and BBVA, also **social integration mechanisms** were highly present, which facilitated the exchange and sense-making of the received information. In contrast, in the struggling case, social integration mechanisms were not as highly present which negatively influenced the absorption of external information and which could have been a reason for the lack of cross-boundary expertise at BankXY.

The extent of relevant **prior knowledge** also differed between the projects. In general prior knowledge supported the understanding and application of externally sourced information. Here particularly the breadth of prior existing knowledge and expertise within the two successful cases emerged as an important difference when compared to the struggling case. In more detail, while BankPro and particularly BBVA maintained different expertise areas in-house in order to stay up-to-date in several difference domains, in the struggling case such a variety of expertise was not observed to be present. Further, due to the radical nature, frequently procedural “know-how” gathered from prior innovation projects supported the two successful projects while only to a limited extent, codified information from the firm’s databases were useful for the absorption of external information. In contrast, in the Inno-Card project, a lack of prior development experience inhibited the anticipation of future information needs which seemed to having inhibited the overall effectiveness of absorption activities. Further, neither were significant amounts of codified prior knowledge used to facilitate the external learning activities in the struggling case

Further in all three projects, **network** connections to external companies were maintained, either via personal networks or via formal collaboration, partnerships or contracting. Due to these relationships information exchange was facilitated in all observed projects. These networks of relationships which were maintained at all organizations made it easier for project members to acquire information. These relationships either existed already prior to the actual observed information exchange, or the relationship was created due to already existing relationships of the parent organization. Further, particularly in the successful cases, breadth of the network was high, as information was sourced from multiple organizations and institutions. While the struggling case also maintained such network, collaboration was focused, in the market and technical absorption activities most of the time on single partners from which information was sourced. Regarding the knowledge overlap between the network partner and the absorbing firm, no large differences between the two successful and the struggling case were observed. Similarly, the quality of the relationship between the absorbing and the network partner firms were in all three cases of high quality. In each case, either long term collaboration was maintained over a long period of time, or

the mother organization of the focal firm had done business with the donating network partner already, or, in the case of BBVA, equity stakes had been purchased in the external partner firm.

Interestingly, regarding the **nature of the externally sourced information**, complexity was always relatively high. Information was sourced in form of sophisticated customer analysis, technical domains, or legal regulations which was not understandable to other project members. Yet regardless the success of the project, in all projects, complex information by itself did not constitute a critical issue for either firm. For market or technical information, internal routines were in place which permitted the handling of such complexity. For example, in the case of BBVA, here technical and market research departments routinely acted as boundary spanners for other project members in order to translate complex information into more general terms. Also at BankPro, lawyers and market research departments were used for this role. Finally, although at BankXY transformation of external information constituted a considerable issue, the non-existence of transformation activities rather originated from a lack of awareness of involving the available experts early enough in the project. If the involvement would have been performed properly, internal experts most likely would have been capable of processing the involved complexity of the information. While complexity, hence, did not inhibit the absorption activities, rather, the ambiguity of the sourced information constituted a challenge in the observed projects. Most visibly within the Wohnriester project, available information could be interpreted in many ways, which necessitated the parallel development of more than one service concept in order comply with the time to market objectives. In contrast, in the other projects, information was, to the largest extent complex yet rather unambiguous, as the meaning of information for e.g. installing an IT-system, or understanding customer preferences was not perceived as being highly difficult to interpret. For example in the Tucuentas project, customer analysis was performed in a highly sophisticated manner, yet the results of the study clearly indicated several strong preferences of potential clients. This led to a parsimonious understanding of the meaning of these and no multiple interpretations of these were present among project member. Resulting from this, development experts could design the service according to this highly convincing evidence which reduced the time to market and the overall investments into the service design. Yet, as the last example of the analysis of customer preferences indicated already, the sourced information was rather implicit and needed to be converted into “hard facts”. This also became evident in the technical information where the information was embodied in the experience of the employees of the external partner firm. The frequent rather implicit nature of the external information was observed to having been present in the successful and struggling case, demanding extra effort in order to further use it in the absorption process.

In addition to these factors, also the characteristics of the organizations and the broader industry seemed to influence the absorption activities. Here, in particular the **firm size**, as well as the lack of **protection of intellectual property** in the service sector crystallized as relevant for the absorption of external information in the radical innovation projects. A large firm size facilitated on the one hand acquisition and transformation of external information, while it limited to a certain extent the application phase. More specifically, in both large organizations BankPro and BBVA, the large firm size resulted in a relatively large amount of internal experts residing within the organization, and, also caused a more frequent development of new services. The former increased the amount of prior market and technical knowledge, while the latter increased the amount of procedural knowledge available to the firms, as organization members increased experience in anticipating the necessary information needs during innovation projects due to their prior involvement in other projects. On the other hand, the large firm size also increased the work load for integrating the radically new services in the existing organization and infrastructure of the large organizations, which made the application of the absorbed information more laborious. In contrast, the medium size of BankXY limited to some extent the number of experts available to the innovation project. In addition due to the limited size of BankXY not as many new services were developed as in the other two organizations, which reduced the development expertise inside the bank which in turn seemed to limit to some extent the identification of information needs during the innovation project. Yet, due to the limited size of BankXY no obstruction of the application due to bureaucratic hurdles or similar, were identified. Hence, firm size seemed to influence absorption activities in positive and negative ways.

In line with the prior factor, also the lack of protection mechanisms in the service sector had more than one relationship with the absorption of external information. Here it was observed, that external technical information needed for the service design was available to all organizations without any proprietary obstacles. For example, BankXY could source information about the functioning and operation of credit cards without the need to take into consideration any intellectual property rights as the concepts behind credit card business were not protected by any intellectual property rights. Also, regulatory information could be sourced by BankPro with ease. Hence with regard to technical information, no obstruction was identified. In contrast, the lack of protection mechanisms seemed to influence rather the absorption of external market information, and in particular the possibility to absorb external customer feedback in later phases of the projects. In the Inno-Card and in the Wohnriester project, this limited the acquisition of customer feedback. In

particular in the Wohnriester project, project leader decided against pre-market tests in order to avoid that information about the design of the new service would leak out towards the bank's competitors already prior to the market launch. In BankXY, similar reasons led to a limited pre-market test in which only family and friends were invited to use a beta version of the Inno-Card. Hence, all in all, several factors were observed to impact in a similar direction when compared between different radical innovation projects. Yet differences were observed when separating the studied radical projects into successful and struggling examples. The following table provides an overview of the different factors observed and their influence on the absorption activities within the radical innovation projects.

Radical & Successful Cases

Radical & Struggling Case

Facilitator / Inhibitor	Characteristics
Performance	Success ----- Failure
Degree of Newness	Radical ----- incremental

BankPRO: Wohnriester	BBVA: Tucentas
Success ✕----- Failure	Success✕----- Failure
Radical ✕----- incremental	Radical ✕----- incremental

BankXY: Inno-Card
Success -----✕ Failure
Radical ✕----- incremental

Facilitator / Inhibitor	Characteristics
Prior Knowledge	Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge)
Nature of external knowledge	Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data)
Mindset	Appreciating external information (in contrast to „not invented here syndrome) Being aware of the need to adapt
Social Integration Mechanisms	structures supporting the sharing and interconnectedness of different internal expertise areas
Cross Boundary Expertise	complementary functions within the organization ought to be intermeshed redundancy in expertise
Power Relations	relationships involving the use of power and other resources by an actor to obtain his preferred goal
Network of external partners	Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship
Firm Size	Number of employees, market position in relation to competitors
Intellectual Property Rights	Low degree of protection mechanisms available to shield service innovation from imitation

Impact on absorption during Wohnriester	Impact on absorption during Tucentas
Facilitating: Breadth of prior service development know-how & Know-About	Facilitating: Breadth of prior Know-How & Know-About
Inhibiting: High degree of ambiguity No effect: Rel. high degrees of complexity Inhibiting: Increased amount of implicit external information	Facilitating: Low degree of ambiguity No effect: Rel. high degrees of complexity Inhibiting: Increased amount of implicit external information
Facilitating: External pressure resulted in awareness of radicalness and made project members receptive for changes and made them accept new external insights	Facilitating: Awareness of radicalness made project members receptive for changes and made them accept new external insights
Facilitating: Intense and frequent project meetings plus informal communication channels facilitated absorption related collaboration and communication	Facilitating: Through established knowledge sharing infrastructure, absorption related collaboration and communication was facilitated
Facilitating: Project members showed overlap of their expertise with other affected disciplines which supported understanding and communication during absorption	Facilitating: Expertise overlap of the members across a broad set of disciplines supported understanding and communication during absorption
Facilitating: External & Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information	Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information
Facilitating: Broad set of external ties, high quality of relationships, and some overlap of the external partner's expertise with the banks expertise allowed for more complete information access and understanding	Facilitating: Broad set of external ties, high quality of relationships, and some overlap of the external partner's expertise with the banks expertise allowed for more complete information access and understanding
Facilitating & Inhibiting: Large amount of available internal expertise & resources facilitated acquisition and transformation, while complexity of routines inhibited application	Facilitating & Inhibiting: Large amount of available internal expertise & resources facilitated acquisition and transformation, while complexity of routines inhibited application
Inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests	No effect: As service was (perceived) to be difficult to imitate, no restrictions in opening the innovation to customers or partners were observed.

Impact on absorption during Inno-Card
Inhibiting: Limited scope of prior „know about“ knowledge, limited service development „know how“
Facilitating: Low degree of ambiguity No effect: Rel. high degrees of complexity Inhibiting: Increased amount of implicit external information
Inhibiting: Lack of awareness of novelty of new service reduced willingness to accept external information and reduced absorption quality
Inhibiting: Very late communication with important internal experts caused incomplete absorption of technical information
Inhibiting: Little overlap of project members' expertise inhibited understanding and communication during absorption
Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information
Facilitating: Quality of relationships allowed for more complete information access and understanding
Facilitating & Inhibiting: Limited amount of available internal expertise & resources inhibited acquisition and transformation, while reduced complexity of routines facilitated application
Inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests

Table 15: ACAP Facilitators & Inhibitors During Successful and Struggling Radical Innovation

7.2.2 Radical vs. Incremental Projects

As regards the cross-case analysis of the here presented incremental and radical innovation projects several similarities but also differences have been identified.

To start with the **power relationships**, in all four radical and incremental projects, powerful actors played an important role in creating awareness for the need to absorb external information about specific topics and these actors also freed up resources in order to allow for sufficient amount of absorption activity. Yet, while in the radical projects, mostly internal power-actors such as senior management played a dominant role, in the incremental projects also external customers influenced and directed the focus of the absorption activities.

Cross boundary expertise facilitated the absorption of external information in all four projects, as project members could understand and apply the transformed information more easily. Yet, the degree of overlap differed across incremental and radical projects. In the incremental projects higher degrees of overlap were observed, than in the radical projects, as in the latter less prior experience could be applied to the service development.

In a similar vein, also the characteristics of the **external network** from which the firms sourced external information differed across incremental and radical projects. While the overlap between the expertise areas of the external partner and the absorbing firm were greater during incremental innovation, the breadth of the network was particularly important during radical innovation, as information had to be collected in “piecemeal” fashion as novel information was involved which was not as readily available as it was during incremental innovation. The quality of the relationships, however was equally facilitating for absorption during incremental and radical innovation

Both in the radical and in the incremental projects, the complex **nature of the external information** was present, which, however was not observed to affect the absorption of the external information considerably, as project members and experts were used to handle complex information in their daily work. Rather, in one radical project, information was identified as being highly ambiguous which hampered overall absorption. In contrast, in the incremental projects, ambiguity was low, which supported the ease with which it could be acquired, transformed and applied to the service development. Further, while in the incremental projects rather concrete, explicit information

was sourced, particularly regarding technical information, in the radical projects information mostly was of implicit nature, due to the fact that information either needed substantial interpretation (e.g. the legal information in the Wohnriester project at BankPro) or was relying on experience and know-how of external experts (e.g. the technical information sourced from Strands.com)

Likewise, the impact of the lack of **protection mechanisms** did not differ when compared across different degrees of newness. Rather it was observed to differ between the two organizations BankPro and BBVA in which both radical and incremental projects were analyzed. While at BankPro lack of protection mechanisms facilitated access to certain technical information, it hampered the acquisition of customer specific information. In contrast, at BBVA, lack of protection mechanism generally facilitated the access to information and no hampering effect with regard to the absorption of customer specific information was identified. While at BBVA the strong investment in internal infrastructure was regarded by internal management as shielding the innovation(s) from early imitation, at BankPro, imitation was regarded as an omnipresent threat, possibly caused by considerably lower levels of investments in internal (technical) infrastructure.

Prior knowledge, in turn, facilitated in all projects the absorption of external information. Yet, while in the incremental project foremost priory existing, stored information, i.e. “know-about”, could be directly applied to the innovation development, in the radical innovation observed at BankPro, rather basic prior know-how of how to develop services supported the absorption and only limited priory existing “know about”. Although in the radical Tucentas project at BBVA also concrete prior market knowledge facilitated the absorption activities, this difference between the role of know-how and know-about demarcated incremental from radical projects. Further, the breadth of the internally available knowledge supported particularly the absorption for radical innovations. In incremental projects, the absorption activities were directed at rather familiar knowledge domains, necessitating prior knowledge from proximate domains.

Further, the considerable **firm size** of BankPro and BBVA had differing influence on the radical and incremental projects. While it facilitated the acquisition and transformation of external information in both incremental and radical innovation due to the available resources inside the firm, only during radical innovation did the rather complex infrastructure and procedures necessitate extra effort during the application of the acquired information. Hence, in contrast to radical innovation, for incremental innovation, the large firm size was fully beneficial, as the

organizations were more used to improving some characteristics of already existing services than they were regarding the adaption of their organization to completely new fields of business.

Additional differences between incremental and radical projects were observed, furthermore, regarding the importance of **social integration mechanisms**. While these knowledge sharing mechanisms were of utmost importance during the radical projects in order to update all project members about newly available information about technical or market changes during the project, in the incremental projects such timely sharing of information was not relevant to a similar degree. This seemed to be due to the fact that less iterations of the absorption process were observed during incremental innovation, at least regarding the technical information absorption. Incremental projects sourced information of more reliable nature, meaning that the dynamism of the updating and change of such information was reduced when compared to the radical innovation projects. In consequence, initially sourced information did not become obsolete or changed as fast as in the radical projects. This reduced the need for the project members to exchange information in such an inter-connected way as was observed in the radical projects.

Similarly, the **mindset** of the organization members regarding the need to search for new information and to be willing to adapt to the new situation arising through the development of a new service differed across incremental and radical projects. In the radical projects, project members and the wider organization in which the new service was to be implemented were highly aware of the fact that the service was completely different from prior services and hence necessitated extra effort and increased awareness to look for information outside the organization. In contrast, in the incremental projects, such a mindset for change was not observed to be present or needed. Rather, due to the relatively small impact of the incremental innovations on the existing infrastructure, no increased acceptance of an upcoming change was needed and subsequently no increased awareness or appreciation of externally sourced information was needed in order to successfully absorb information for the development of these services.

Hence, all in all, several factors had similar relevance to either incremental or radical projects, and only a few factors were important for only radical innovation, i.e. employees' mindsets and social integration mechanisms. Differences were further observed regarding prior knowledge, as here different types of knowledge were important depending on the degree of newness of each project. The following table juxtaposes the observed facilitators and inhibitors for the radical and incremental projects described above.

Radical & Successful Cases

Incremental & Successful Cases

Facilitator / Inhibitor	Characteristics	BankPRO: Wohnriester	BBVA: Tucuentas	BBVA: eConta Premium	BankPro: Onlinebusiness
Performance	Success ----- Failure	Success ❌----- Failure	Success❌----- Failure	Success ❌----- Failure	Success❌----- Failure
Degree of Newness	Radical ----- incremental	Radical❌----- incremental	Radical❌----- incremental	Radical -----❌incremental	Radical -----❌ incremental
Facilitator / Inhibitor	Characteristics	Impact on absorption during Wohnriester	Impact on absorption during Tucuentas	Impact on absorption during eConta Premium	Impact on absorption during Onlinebusiness
Prior Knowledge	Breadth of prior knowledge Know-How (experience) Know-About (explicit knowledge)	Facilitating: Breadth of prior service development know-how & Know-About	Facilitating: Breadth of prior Know-How & Know-About	Facilitating: In-Depth Customer Knowledge (databases)	Facilitating: In-Depth technical expertise & customer knowledge (databases)
Nature of external knowledge	Ambiguity (Multiple ways to interpret one information) Complexity (multiple parts constitute one information) Implicitness (information based in experience, not directly accessible) Explicitness (plainly visible, codified in documents, data)	Inhibiting: High degree of ambiguity No effect: Rel. high degrees of complexity Inhibiting: Increased amount of implicit external information	Facilitating: Low degree of ambiguity No effect: Rel. high degrees of complexity Inhibiting: Increased amount of implicit external information	Facilitating: Low degree of ambiguity No effect: Relatively high degrees of complexity No effect: Some implicit information, yet due to reduced amount no effect on absorption	Facilitating: Low degree of ambiguity No effect: Relatively high degrees of complexity No effect: Some implicit information, yet due to reduced amount no effect on absorption
Mindset	Appreciating external information (in contrast to „not invented here syndrome) Being aware of the need to adapt	Facilitating: External pressure resulted in awareness of radicalness and made project members receptive for changes and made them accept new external insights	Facilitating: Awareness of radicalness made project members receptive for changes and made them accept new external insights	No effect: No specific attitude of mindset of project members was observed as project was rather perceived as „daily work“	No effect: No specific attitude of mindset of project members was observed as project was rather perceived as „daily work“
Social Integration Mechanisms	structures supporting the sharing and interconnectedness of different internal expertise areas	Facilitating: Intense and frequent project meetings plus informal communication channels facilitated absorption related collaboration and communication	Facilitating: Through established knowledge sharing infrastructure, absorption related collaboration and communication was facilitated	No effect: As reduced amounts of information were shared and due to reduced iterations of the absorption process, social integration mechanisms were not of utmost importance	No effect: Sharing mechanisms were not highly relevant as only limited information needed to be shared and with less iteration
Cross Boundary Expertise	complementary functions within the organization ought to be intermeshed redundancy in expertise	Facilitating: Project members showed overlap of their expertise with other affected disciplines which supported understanding and communication during absorption	Facilitating: Expertise overlap of the members across a broad set of disciplines supported understanding and communication during absorption	Facilitating: Overlap between marketing and innovation department supported acquisition, transformation & application of external information	Facilitating: Overlap between marketing and innovation department supported acquisition, transformation & application of external information
Power Relations	relationships involving the use of power and other resources by an actor to obtain his preferred goal	Facilitating: External & Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information	Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information	Facilitating: Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information	Facilitating: External business customers created focus for absorption activities. Internal powerful actors freed up internal resources for the acquisition, transformation and application of external information
Network of external partners	Overlap of internal expertise with partner's expertise Breadth of network Quality of Relationship	Facilitating: Broad set of external ties, high quality of relationships, and some overlap of the external partner's expertise with the banks expertise allowed for more complete information access and understanding	Facilitating: Broad set of external ties, high quality of relationships, and some overlap of the external partner's expertise with the banks expertise allowed for more complete information access and understanding	some facilitating effect: Quality of relationship, overlap with existing expertise	Some facilitating effect: In general lower relevance of network than for Wohnriester project, as information was sourced several times from freely accessible sources or customers. Quality of relationship was, however helpful in some instances
Firm Size	Number of employees, market position in relation to competitors	Facilitating & Inhibiting: Large amount of available internal expertise & resources facilitated acquisition and transformation, while complexity of routines inhibited application	Facilitating & Inhibiting: Large amount of available internal expertise & resources facilitated acquisition and transformation, while complexity of routines inhibited application	Facilitating: Large amount of available internal expertise & resources facilitated acquisition and transformation, proximity to internal expertise & limited scope of absorbed information facilitated also application	Facilitating: Large amount of available internal expertise & resources facilitated acquisition and transformation, proximity to internal expertise & limited scope of absorbed information facilitated also application
Intellectual Property Rights	Low degree of protection mechanisms available to shield service innovation from imitation	inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests	No effect: As service was (perceived) to be difficult to imitate, no restrictions in opening the innovation to customers or partners were observed.	No effect: As service was (perceived) to be difficult to imitate, no restrictions in opening the innovation to customers or partners were observed.	inhibiting: Service was (perceived) to be easy to imitate which caused restrictions in opening the innovation to customers especially regarding market tests

Table 16: ACAP Facilitators & Inhibitors During Successful Incremental and Radical Innovation

7.3 Ambidexterity: Dynamics Between Radical and Incremental Innovation

So far similarities and differences between single projects – being radical, incremental, successful, or struggling – have been discussed and grouped together. By moving one step away from the single projects towards the whole organizations in which the projects have been observed, it crystallized that two organizations managed to develop both incremental and radical innovations, while one organization struggled already in bringing a single radical innovation to the market. Yet, when comparing the two organizations with a dual focus on incremental and radical service innovation activities regarding the timeline on which such innovations were developed, different patterns emerge.

Regarding BankPro, here within the time period of 2008 until early 2009, the Wohnriester project was developed, leaving no resources for additional service developments in parallel. Due to exclusive focus of the bank's resources on radical innovation, other development activities were postponed to 2009. In consequence incremental developments such as the Online Business project started after the Wohnriester services were launched in the market.

At BBVA, a different picture emerged which, however, demands explanation. As was indicated in the general description of BBVA's innovation activities already, and which had been published in the Case "Innovation at BBVA" (Ramis & Droege, 2010), besides the here reported innovations "Tucuentas" and "eConta Premium" also additional service innovation were developed. These pertained to online communities ("Tpresento"), as well as an online platform for storing confidential documents. While the tucuentas project was developed mainly within 2008, and the eConta Premium service development started after the Tucuentas project in early 2009, the other projects were conducted in part in parallel to the radical Tucuentas project. Even though no detailed assessment had been performed in this thesis, in the teaching note of the case "Innovation at BBVA" the authors assess these projects and arrive at the conclusion that all these projects constituted at least incremental service innovations. Hence, BBVA succeeded in simultaneously developing radical and incremental innovations, as in parallel to the radical Tucuentas project other incremental projects were pursued.

When comparing BankPro's and BBVA's innovation portfolio, it crystallizes that two different strategies for developing radical and incremental innovations were performed. While BanPro

resorted to a timely shift between radical and incremental innovation development, BBVA succeeded in developing radical and incremental innovation simultaneously.

In contrast, in the case of BankXY only a struggling single radical development was observed, without prior or subsequent incremental development activities. Interestingly, the development of the radical and incremental innovations at BBVA and BankPro was organized in the same organizational units, being the innovation centre of BBVA in Madrid (which by itself was structurally separated from the operational bank activities), and at BankPro, the product development sub-area inside the product management department. Hence, no structural separation of these different development activities was observed in the two banks. Interestingly, at BankPro a lack of internal resources, specifically time constraints of the development team inhibited a parallel pursuit. At BBVA, sufficient internal resources were available, and, in addition, all projects were performed in an area specialized on continuous innovation, which may have facilitated this parallel pursuit of incremental and radical innovations.

As the cross case analysis revealed, in parallel to the achievements of BankPro and BBVA to develop both incremental and radical projects, these two banks were also the two firms which succeeded in absorbing external information more successfully and to support these absorption activities more effectively than BankXY did.

With regard to these findings, it crystallizes that a high absorptive capacity was found to be present in the firms which succeeded to develop both incremental and radical innovations. The firm which struggled already with the development of a single radical innovation also had difficulties in absorbing external information. Hence data suggests that the ability of a firm to develop both radical and incremental innovations is related to the ability of an organization to adequately absorb information.

In fact, the successful absorption of external information was highly relevant for the successful development of both radical and incremental innovations. Regardless the degree of newness, external information needed to be sourced in a competent manner in order to successfully develop incremental and radical innovations in the two organizations. As was shown in the cross-case analysis earlier already, not all phases of the absorption process, and neither all facilitating or inhibiting factors differed across the here analyzed incremental and radical innovations. Rather, several elements which were needed to successfully absorb external information were equally

important in the development of radical and incremental innovations. As regards the absorption process operating in the radical and incremental innovation projects, phases such as the recognition of the value, acquisition, transformation of the external information, and application appeared to be present regardless the underlying degree of newness of the innovation. Differences crystallized rather in the need for the organization to adopt its internal expertise areas for the radical innovation as the newly acquired information was too distant as to be transformable by existing expertise sets. Further, in the factors influencing the absorption process, here also several similarities were identified, as was discussed already in the cross-case analysis earlier. While supportive power relations, cross boundary expertise, networks, complexity and ambiguity of the sourced information, protection mechanisms of the wider market in which the banks were positioned, and firm size showed similar relationships during radical and incremental innovation regarding the propensity of successfully absorbing external information, only the organizations members' mindsets for change, nature of prior knowledge, and social integration mechanisms differed across incremental and radical projects.

Hence, the activities both banks pursuit with regard to information absorption in radical and incremental projects paralleled each other to a certain degree. In consequence the importance and considerable resemblance of the design of the absorption activities in these innovation types can also be taken as first insight into the beneficial role of absorptive capacity for the ability of a firm to develop both radical and incremental innovations. The following figure visualizes the switch from radical to incremental innovation at both ambidextrous organizations, alongside the struggling case where no dual focus on incremental and radical innovation projects was observed.

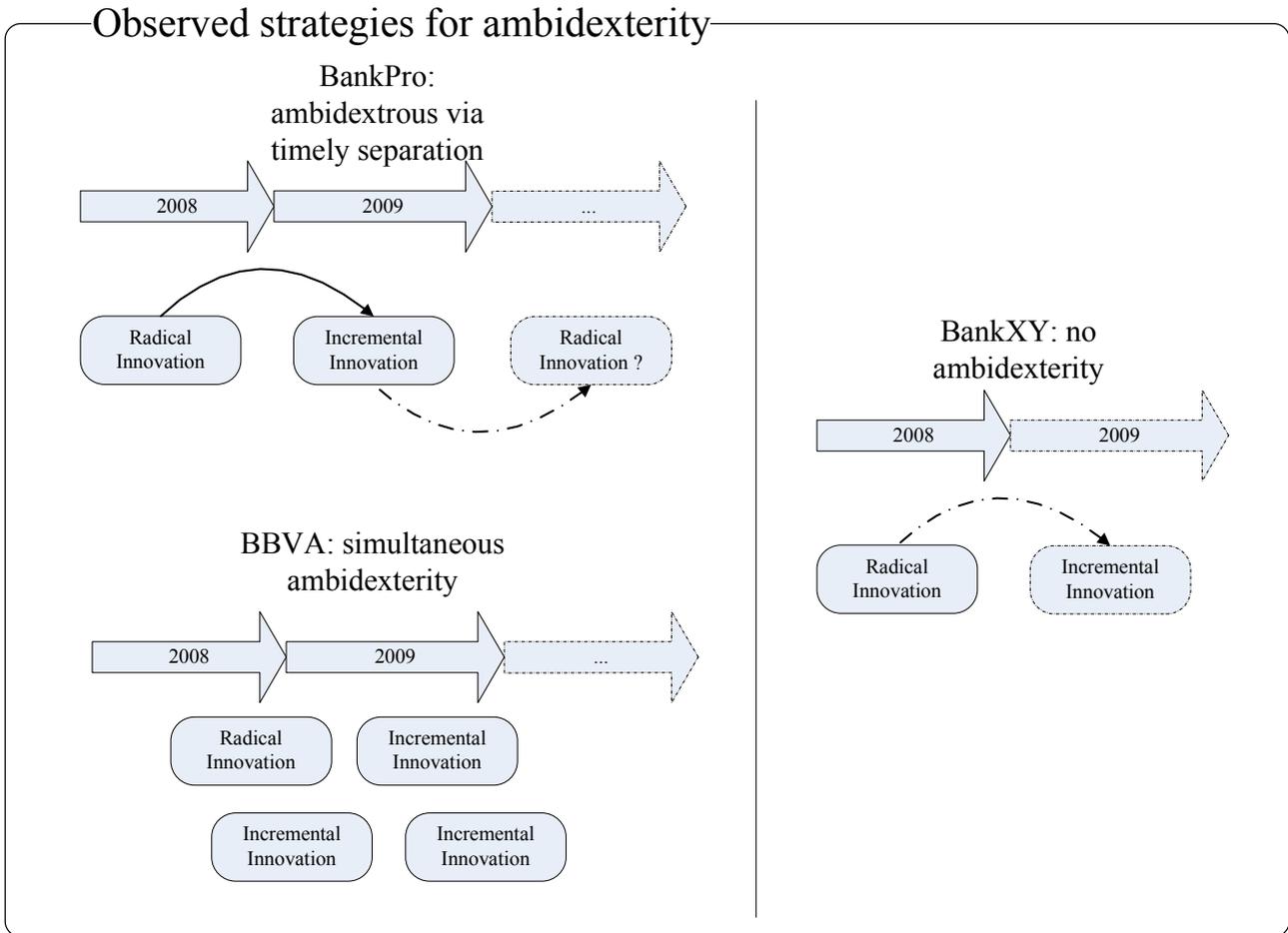


Exhibit 78: Ambidexterity Patterns Across Case Study Organizations

7.4 Open Innovation

As has been described in the review of existing literature on open innovation, the Open Innovation perspective comprises two main dimensions, namely the internalization of external information and the externalization of internally held ideas and knowledge to external partners. While the former has been described in depth in the discussion on the case study firm’s absorption activities, the latter constitutes a rather novel perspective.

In the cases of BankXY and BankPro, no externalization of internally developed innovations could be observed. Here, only the internalization of external information was observed to having taken place. However, in the case of BBVA, both observed innovation, i.e. Tucuentas and eConta Premium, showed considerable activities in terms of externalization of their developed innovations.

In more detail, within the Tucuentas project at BBVA, both the internalization of external information and the externalization of internal innovation could be observed. While the internalization has been described in the above in much detail, here the externalization was of interest, as it adds to the absorption activities an additional information flow. As BBVA purchased an equity stake in the technology and web design startup “Strands.com”, collaboration between these two firms was, as described, very intense. Strands was responsible for parts of the software development of the underlying software basis for the new online banking solution.

Yet, besides this, BBVA granted Strands the permission, to take the very same service platform and to market it in the US-market with a distinct business model. Different from BBVA, where Tucuentas became integrated in the main online banking presence, Strands took the service concept and launched it as a personal finance manager without direct linkage to a real retail bank. Rather, it offered its US-based clients to link their different bank account information to their platform in order to obtain a holistic overview on all financial activities and not only of one single bank account. While the use of this service was free of charge for the clients, cross-selling offers, based on the spending behaviour of the users, were envisaged by Strands to generate sufficient value in order to make this new service profitable.

BBVA permitted this “co-exploitation” of the novel service by Strands, as management expected additional learning gains due to the alternative usage of the same service concept. In particular, as BBVA owned a 24% stake in Strands, long term collaboration was, from the perspective of management, assured, which created the foundation for this long-term expectation of the bank. Hence, no direct royalty fees via licensing, or other monetary revenue streams were applied in order to benefit from this externalization. While in the long term, due to the equity stake in Strands, financial rewards via dividends or an increase of the market value of Strands.com were additional potential benefits potentially underlying this decision, interviewees rather stressed the learning output as the most relevant benefit for the bank.

Also in the eConta Premium development, both the internalization and externalization processes were present. Here, however, the launch of the new service was performed direct from the beginning outside the boundaries of BBVA. As had been described further above, BBVA had purchased a 70% stake in eConta, an online accounting service provider, and the development of eConta Premium was grounded in the expectation that an improvement of the service portfolio of eConta would positively influence the future market position and, consequently, profitability of the

small firm. Hence, while the innovation was developed in-house within BBVA, due to the larger expertise and internal availability and expertise in developing new services, the final service was handed over to eConta, after last beta-tests had been performed under the supervision of BBVA innovation managers. Hence, different from the externalization pattern observed in the tucuentas projects, here no dual exploitation of the novel service was observed.

Overall, as only two projects within a single case study firm involved the “externalization” dimension of open innovation, cross-case comparison is limited to these two examples. Yet, what appeared important was that the decision to opening up innovation in both the Outside-In and Inside-Out dimension was rather an organizational phenomenon, rather than a decision taken on a “case by case” basis. This became evident in two observations. First, such “complete” open innovation was observed only in one organization where all observed projects were managed in an open approach. In the other two cases, also open innovation was present, yet exclusively the Outside-In dimension. Second, the degree of newness of the underlying project seemed not to be highly relevant for choosing a complete open innovation approach, as tucuentas and eConta premium differed greatly in their degree of radicalness.

Hence, in conclusion, open innovation was performed either by focussing on the Outside-In dimension, or by including both dimensions. If one organization adopted this innovation management approach, it was applied to projects which greatly differed in their degree of newness, lending support to the proposition that open innovation does not depend on the radicalness of single innovation projects, but rather constitutes a general approach for a firm’s innovation management. The following exhibit provides a graphical scetch of these different approaches to open innovation management.

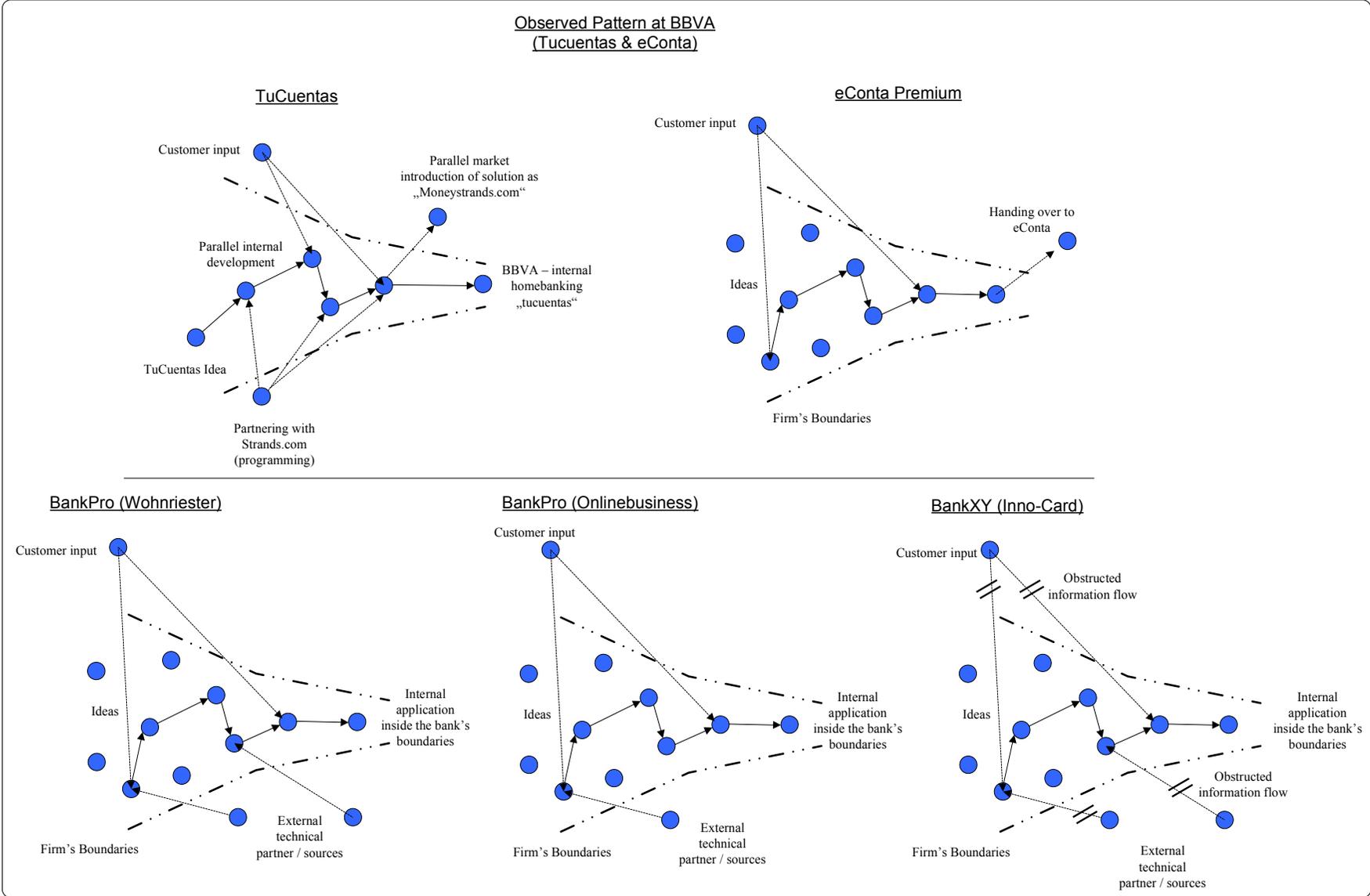


Exhibit 79: Open Innovation Approaches

8 Theoretical Contribution

In this section the different findings from the single- and cross-case analyses are to be compared and discussed in the light of existing literature on innovation, services, and absorptive capacity. The principal relevance of this research was to provide, as one of the first studies, an in-depth understanding of the absorption process within radical and incremental service innovation.

With the answers to the raised research questions presented here, findings on how the ACAP concept has been applied within concrete service innovation projects extend literature on absorptive capacity to an - up to now rather neglected - empirical setting (Lane et al., 2006). In fact, authors have started to note that certain industries, such as biotechnology or pharmaceutical companies, have already been studied extensively, whereas insights into how firms in service industries learn from external sources has remained under-researched (Santoro, Bierly & Gopalakrishnan, 2007; Lane et al., 2006).

In addition, due to the fact that many of the existing process models have remained conceptual without subsequent empirical analysis, the identification of several ACAP process phases within the observed service development projects may allow for a first empirical insight into the nature of the ACAP process over time. Also the identified patterns regarding the flow of the ACAP process when compared against the flow of the general innovation process adds further insights to current research.

Further, while current ACAP research has focused predominantly on the absorption of technical information (Easterby-Smith et al., 2008), the dual focus on both market and technical knowledge chosen here adds new insight to current ACAP understanding. Due to the interrelation and beneficial interaction of the absorption of technical and market knowledge, a new driver for successful absorption and, in consequence, for successful innovation has been presented. The study of the absorption process over time also adds to the currently mostly static perspectives a dynamic process model which takes into consideration the multiple iterations and parallel pursuit of the single absorption phases. In so doing, the beneficial effect of such a parallel and iterative design of the ACAP process constitutes an important contribution to current research.

Moreover, in literature to date, only few studies have embarked upon investigating innovation management in radical and incremental service development contexts (Oke, 2007; Droege et al.,

2009). By having added an in-depth analysis of the similarities and differences in the absorption activities during radical and incremental service innovation, additional insights have become available. In particular, this research provides insights that the treatment of a radical innovation like an incremental innovation led to a reduced level of information absorption which subsequently hampered overall innovation success. Generally speaking, major differences in the absorption activities were observed to be present in the degree of iteration and parallelism of the absorption process stages.

In addition, several facilitators and inhibitors, such as the importance of a mindset for change, the importance of cross-boundary expertise and knowledge sharing across departments, as well as the general size of the firm showed different relationships to information absorption during radical and incremental innovation.

Besides the contributions made to ACAP literature, this research adds further evidence to the general phenomenon of innovation in service industries. Little research has been done related to the innovation activities inherent in the development of new services (Nijssen et al., 2006; Drejer, 2004; Adams et al., 2006), which has resulted in the fact that “current theory and understanding of the strategies and tactics for developing new services is inadequate.” (Menor and Roth, 2007: 825) Although in recent years advancements have been made in service innovation literature, in many areas inconsistent findings have been presented which have created several fields of academic debate (Droege et al., 2009). Among others, evidence has been provided to the debate on whether service and product innovation have to be managed in different ways (Droege et al., 2009; Tether, 2005). As the emerged process model showed similarities with the conceptual and not yet validated process model of Todorova & Durisin (2007), first evidence has been provided that the absorption process may be similar during product and service innovation. Hence, with this research the “demarcation” school of thought, i.e. the perspective that service innovation has to be treated differently than product innovation, has not been supported.

Finally, in the analyses of the cross-case, findings emerged which add to our understanding of the recent growth in interest in the concepts of “ambidexterity”, i.e. the simultaneous management of incremental and radical innovation, and “Open Innovation”, i.e. the management of the processes for the internationalisation of external innovation and the externalisation of internal innovation (Chesbrough, 2006). Regarding the former, various strategies for balancing incremental and radical innovation inside one organization could be identified. I contribute to the literature on open

innovation with insights as to how service organizations have been capable of externalising their internally developed innovation notwithstanding the sector-inherent difficulty of the non-protection of service ideas due to the lack of intellectual property rights.

The above specified contributions are discussed in more detail in the following. Firstly, the findings relating to the process of absorptive capacity are discussed. Secondly, the results of the study of the facilitators and inhibitors for ACAP are juxtaposed to current insights from literature. Thirdly, additional insights which emerged from the cross-case analysis are discussed. These include contributions regarding the relationship between ACAP and ambidexterity, differences between service and product innovation, and finally insights regarding open innovation approaches. This is followed by a section on managerial implications and the presentation of future research opportunities.

8.1 The Process of ACAP for Radical and Incremental Service Innovation

8.1.1 The Process Phases

In the analysis of the case data, different process phase combinations for radical and incremental innovation were identified.¹⁵ In the radical innovation projects, the absorption process comprised - for technical information - five phases. These were the recognition of the value, the acquisition, the transformation of the internal knowledge base, the transformation of the externally sourced information, and its application in the wider development activities. Diverging from this, the absorption of market information in the observed cases did not necessitate the phase “transformation of internal knowledge base”. Consequently, market information was sourced via a fourfold process of recognition, acquisition, transformation of external information, and application. Similar to the absorption of market information in the radical projects, the same four process phases were observed in incremental innovations.

In more detail, in both successful radical innovations at BankPro and BBVA, a transformation of the internal knowledge base via training and adaptation as well as a transformation of the external knowledge by translating the highly sophisticated information into more general product

¹⁵ Parts of this discussion section have already been presented in conference papers for EURAM 2009 (Best Paper Award Winner in the Track for Innovation Research), Academy of Management 2009, EGOS 2009, and Frontiers in Service 2009.

management information was observed. At the struggling BankXY, in contrast, neither sufficient transformation of the internal knowledge base nor the transformation of external information was observed, leading to considerable difficulties in later phases of the service development project. In recent conceptualisations, transformation of the internal knowledge base and transformation of external knowledge have been identified separately from each other. For example, Zahra & George (2002) indicate transformation activities focused on external knowledge in their model. In their synthesis of current literature, Lane et al. (2006) also present a process phase in which external knowledge is made available to the absorbing organization through transformative learning. In contrast, Todorova and Durisin (2007) present a different perspective and propose either transforming the internal knowledge base or the external information.

Cohen & Levinthal (1990) discuss internal transformation by way of an evolutionary perspective and hence do not identify a prompt internal transformation due to a concrete external knowledge influx. In more detail, these early researchers of absorptive capacity argue that the internal knowledge base increases through the absorption of external information, and hence the organization improves its absorption capacity for the future. However, the authors are not focusing on the purposeful adaption of the internal knowledge base in order to prepare the organization for an upcoming absorption of novel external information. By identifying a **transformation of both the internal and the external knowledge**, a more complete picture of the ACAP process has been presented which may help to integrate these different perspectives. In particular, Todorova & Durisin's (2007) either/or definition of internally or externally oriented knowledge transformation has been extended by the findings presented here, because in the course of these case studies, both needed to be done in order to absorb external knowledge.

Indeed, for BankPro and for BBVA it was vital to perform transformation into both directions in order to fully absorb the externally available technical information. On the one hand, the immediate adaptation of internal knowledge by the training of and learning by internal experts was necessary in order to become capable of obtaining a detailed understanding of the novel information. In this case, the argument raised by Todorova and Durisin (2007) goes in line with the findings presented here, as “transformation enables organizations to perceive new knowledge to some extent incompatible with prior knowledge, to build new cognitive structures, and to cope with path dependency” (Todorova & Durisin, 2007: 778), by referring to prior studies on the reframing of internal schemas and knowledge bases (e.g. Bartunek, 1984; Labianca, Gray, & Brass, 2000).

On the other hand, transformation of the external knowledge was necessary since, without the active translation of the technical information through the internal experts (Cohen & Levinthal, 1990, Easterby-Smith et al., 2008), an application of the external knowledge in the development activities would have been more difficult. In this case, the boundary spanners' individual agency (Jones, 2006) also helped the banks to reduce the overall training load because, by way of individual experts taking over the task of translation, the general development staff could perform its work properly without becoming experts on these novel domains. Hence, the double focus of BankPro's and BBVA's transformation activity allowed for an appropriate, yet not too excessive, adaptation of the internal knowledge base to the new external information.

Consequently, by taking these findings into consideration, ACAP process models should rather include a double focus than the - to date - rather unidirectional conceptualisation of the transformation stage (e.g. Lane et al., 2006; Zahra & George, 2002). These findings also indicate that transformation of the internal knowledge bases is not necessarily only performed in the long term in an evolutionary, path-dependent manner. In fact, the observed organizations could adapt quite readily to the new information influx via actively training the relevant expertise of the boundary spanners involved.

In addition, my findings support Todorova & Durisin's (2007) conceptual caveat, that Zahra & George's (2002) omission of the **recognition phase** may distract attention from the important role continuous awareness of the value of external information may play in the development project. In fact, while at BankPro and BBVA the recognition phase was highly present, at BankXY a lack of appropriate levels of awareness of the importance of external knowledge led to an insufficient recognition of the value of external technical information which subsequently hampered the overall development of the radical innovation. This finding supports the ACAP conceptualisations which take **recognition of the value as a distinct phase** (e.g. Todorova & Durisin, 2007) into account, since the initial awareness of the importance and nature of the required information greatly influenced the later depth and breadth of acquiring and exploiting the external information.

Finally, empirical support for the existence of a **distinct acquisition phase** during which boundary-spanning experts actively search for and acquire externally available knowledge was identified as well. As the process models of Cohen & Levinthal (1990) and Lane et al. (2006) did not consider this stage, in contrast to the models presented by Todorova & Durisin (2007) and Zahra & George (2002), this observation may be useful in order to synthesise the differing views on this ACAP

phase. All in all, ACAP models for absorbing technical information in radical innovation may be more concise when considering these observations.

The above stated observation of a five-fold process for absorbing technical information was, however, only valid for the radical innovation projects observed here. In the incremental innovation projects, a less sophisticated process structure was identified. To date, however, the literature on absorptive capacity contains a relative void of ACAP conceptualisations for different innovation types (Lane et al., 2006). In more detail, a fourfold process was observed in the incremental innovations which contained the phases recognition, acquisition, transformation of external information, and application. Unlike the observed radical innovations, in this case no transformation of the internal knowledge base preceded the transformation of the acquired external information. Reasons for this were found in the appropriateness of the existing knowledge base of the technical experts to understand and translate the novel information to the other project members.

In other words, the external information was closer to the already existing know-how and existing information bases of the observed organizations. This finding supports the conceptual argument put forward by Todorova and Durisin (2007) who argue that the transformation of the internal knowledge base could only be necessary in such absorption contexts in which the distance between external and internal knowledge is high. This greater distance between externally sourced information and the existing knowledge base during radical innovation is also reflected in March's (1991) argument on the different nature of exploration and exploitation. March (1991) notes that the "essence of exploitation is the refinement and extension of existing competences, technologies, and paradigms. Its returns are positive, proximate, and predictable. Exploitative learning is variance-decreasing and efficiency-oriented; that includes things such as refinement, choice, production, efficiency selection, implementation." (March, 1991:71) The essence of exploration is the experimentation with new alternatives. Its returns are uncertain, distant, and often negative." (March, 1991: 85) It involves "things captured by terms such as search, variation, risk taking, experimenting, play, discovery." (March, 1991:71) He follows on to argue that "the distance in time and space between the locus of learning and the locus of the realisation of returns is generally greater in the case of exploration than in the case of exploitation, as is the uncertainty." (March, 1991: 85)

Hence, March's (1991) and others' arguments on the distance of needed information for exploratory (radical) projects and the relative proximity of search for exploitative or incremental innovations are supported by my findings.

In the cross-case analysis it was further identified that in successful radical and incremental innovation the absorption process for market information was less sophisticated than the process for technical information absorption. In more detail, the third phase "transformation of internal knowledge" was not observed to have taken place in either radical or incremental innovation. Both at BankPro and at BBVA, market information, mostly in the form of competitor or customer analyses, could be sourced even for radical innovations without the need to adapt the internal knowledge base. On the contrary, transformation was only needed to translate the research findings into statements understandable by market research non-experts. Reasons for this could have been the fact that market information does not differ as much across different projects and thus that existing knowledge bases of the firm tended to suffice in the observed cases in order to understand the new information. For example, customer feedback and customers' evaluation of initial concepts of new service ideas were gathered in similar ways, resulting in similar expertise sets in order to understand the output of these market research activities. In fact, what differed across projects were the questions the customers were asked and the responses received.

Such differences could, however, be dealt with on the basis of the existing expertise of the market research experts and did not necessitate any comprehensive training and adaptation of the knowledge of the market experts inside the banks. Hence, in line with Kogut & Zander (1992), it can be argued that market knowledge differed across projects according to its "information" character and not where its "know-how" dimension was concerned. Due to this, the distance of the sourced information was relatively close to the existing expertise sets and did not necessitate a transformation of the market research knowledge base (Todorova & Durisin, 2007). The following table presents the ACAP processes for technical and market information during radical and incremental innovation, putting it into perspective to the other existing, though mostly only conceptually proposed, process models in the ACAP literature.

Process Phases in Literature				Process Phases from Cross Case Findings		
Cohen Levinthal (1990)	Zahra & George (2002)	Lane et al. (2006)	Todorava & Durisin (2007)	ACAP process for <u>technical</u> information & <u>radical</u> innovation:	ACAP process for <u>technical</u> information & <u>incremental</u> innovation:	ACAP process for <u>market</u> information in <u>incremental</u> & <u>radical</u> innovation:
Recognition of the value		Recognition and understanding (exploratory learning)	Recognition of the value	Recognition of the value	Recognition of the value	Recognition of the value
	Acquisition		Acquisition	Acquisition	Acquisition	Acquisition
Assimilation	Assimilation	Assimilation (transformative learning)	<i>either</i> assimilation (of external KL) <i>or</i> transformation (of internal KL)	Transformation of internal KL		
	Transformation of external KL			Transformation of external KL	Transformation of external KL	Transformation of external KL
Application	Exploitation	Application (of exploitative learning)	Exploitation	Application	Application	Application

Table 17: The Identified Absorption Phases Compared to the Literature

All in all, when comparing these findings for absorbing technical or market information in radical and incremental projects, it crystallises that in particular the technically oriented absorption activities necessitated utmost attention, as the activities needed to successfully absorb such information were of a more sophisticated nature. This is also buttressed by the findings of the struggling radical innovation mentioned earlier. In that case, in particular the failure to follow all the important phases of the absorption process led to considerable difficulties.

Whilst in the struggling case neither the market related information was absorbed in a flawless manner, nevertheless, the quality of such absorption activities was higher than was identified for the technical absorption. In general, data supports the insight that the studied service firms were more familiar with the absorption of market information than with learning about technical aspects for their new services. In the firms analysed here, market information absorption was more institutionalised and common than was the case with the technical absorption activities. In some cases, even longstanding, repeatedly conducted market and customer studies were used, while such standardised reports did not exist for the scanning and monitoring or the technical environment of the banks. It can be derived from these findings that the analysed service firms needed to concentrate especially on the absorption of technical information in order not to harm the development progress of their incremental and radical innovation projects.

While the above finding on the critical nature of correctly absorbing especially technical information is limited to the three case organizations observed, research on larger numbers of service firms supports this finding. Nijssen et al. (2006) argue that service firms which showed strong positions in technical areas because of investments made in internal R&D showed higher numbers of radical service innovation than service organizations which did not focus on investing in internal resources useful for absorbing technical information. In other words, the results of Nijssen et al. (2006) support the presented finding, as a professional approach towards technical information was identified as being crucial for increasing the innovativeness of service organizations.

Notwithstanding the necessity for the here studied firms to concentrate in particular on technical absorption as that process had been identified as being more prone to incomplete absorption due to its more sophisticated process, both activities were of high relevance to the successful development of radical innovation. As became evident in the cross-case analysis, in four of five analysed innovation projects, both market and technical information absorption was present. In fact, in particular during the radical innovation projects, both information types complemented each other

and built on each other in specific ways. While in the Wohnriester project (BankPro), the absorbed technical information on the upcoming change in the regulatory environment triggered the search for potential market opportunities via customer enquiries and competitor analyses, at several points in time during the Tucuentas project at BBVA, customer feedback received on the envisaged service concept led to new technical absorption. Hence, both absorption activities were interrelated and the information from either absorption process served, at times, as important input for the other process.

While in the literature on absorptive capacity the complementary relationship of these two information types has only been mentioned conceptually (Lichtenthaler, 2009), in other fields, the positive interaction between technical and market knowledge has been shown in recent studies (Song et al., 2005). In Service Innovation literature, the importance of maintaining high degrees of market acuity and IT competence in order to be innovative has already been shown (Menor & Roth, 2007), yet the finding connecting these two absorption activities closely to each other in order to support the innovation development has not been mentioned in recent literature. Although the findings identified here call for an interconnected absorption of technical and market information, prior literature only refers to the need to interconnect previously existing market and technical knowledge inside the organization to improve the firm's capacity to absorb new technical knowledge, as Lichtenthaler (2009) argues: "Industrial firms need both complements of prior [market and technical] knowledge to successfully coordinate the learning processes of absorptive capacity." (Lichtenthaler, 2009: 824)

Surprisingly, in the reviewed studies on absorptive capacity, exclusively technical information absorption was studied. Having identified this interplay and the importance of these two absorption processes for successfully developing radical new services broadens the focus on absorptive capacity in current literature. In addition, this finding allows for first insights into the critical success factors for radical service development. As the close interaction between these two absorption activities was highly relevant in the two observed radical projects, a lack of such interaction may cause a less than optimal absorption of information which, in turn, may harm overall development activities, as was observed at BankXY. Hence, such interaction between technical and market information is regarded as an additional success factor for achieving a high absorptive capacity and should be included in future studies.

A related contribution of the here presented findings has been identified in relation to the perception found in literature that market information is especially necessary after new technological options have been identified in order to ascertain how such a new technology could be applied in the market place. “Thus, market knowledge provides a firm with insights into the functions that technological knowledge may fulfil. For example, a firm identifies new applications of a technology in additional markets.” (Lichtenthaler, 2009: 823)

In service innovation literature, such perception on the innovation-initiating role of technological options in service industries is also present (Barras, 1990), yet not without considerable discussion on this matter (Droege et al., 2009; Leiponen, 2005). The analysis of the data for the observed absorption activities revealed that new technical options indeed triggered innovation and market information about its application was mostly sourced after new technical options had been learnt. In the case of BankPro, regulatory changes influenced the technical realisation of the offered services and demanded the development of a new set of services comprising the algorithms and calculus embodied in the regulatory change. Once such technical information was available, customer enquiries and competitor analyses were performed.

In a similar vein, at BBVA during the Tucuentas project, the absorption of technical information for the realisation of the novel online financial manager was followed by customer enquiries in order to reveal how the new technical feature would be accepted by customers. Hence, in services too, knowledge about new technical opportunities was identified as an important trigger for engaging in subsequent searches as to how such new opportunities could be exploited in the market place. But this pattern was not observed in all projects. For example, at BBVA during the incremental innovation of eConta Premium, insights relating to the need to adapt the existing eConta service was revealed “by chance” during a general exploratory market research performed by the customer insight department of the bank. The adaption of the service concept only took place after the customer’s perception and need for the existing service had been disclosed. Consequently, technology was not sought after first in all instances; at least in one incremental innovation observed, novel market information was the source of inspiration for subsequent development activities.

As these findings concerning the sequence of market and technical information absorption indicate, in the radical innovations, technical information was the trigger for the service development and market information and served to ascertain how such new technical insights could best be applied to the market. This finding contributes to the general importance of market and technical information

in new service development (Menor & Roth, 2007), yet it also sheds some light on Christensen's (2000) caveat that customers' own statements about their potential future needs should be used with caution, as customers cannot know in advance what they may need in the future.

8.1.2 The Process Dynamics

Besides the importance of the various absorption phases identified for market and technical absorption in radical and incremental service innovation, the dynamics emerging in the data while absorbing external information can also support future research into the absorptive capacity of a firm. While existing research has to date mostly focused on the factors influencing the successful absorption of external information or, mostly conceptually, discussed the needed absorption process phases for doing so effectively (e.g. Lane et al., 2006; Todorova & Durisin, 2007), the analysis of the different innovation projects adds insights as to how the process unfolded over time and revealed various patterns of the dynamic interplay of the different absorption phases. In radical innovation, the absorption process generally iterated several times, whereas in incremental innovation more punctual absorption at the beginning of the project was observed.

Additionally, in the radical innovation projects, besides the several iterations of the absorption process, an overlap of the various absorption phases was also observed. In detail, while novel information was sourced, prior sourced information was applied to the service development in parallel to the search activities. On the one hand, this meant that the application of the previously sourced information needed to be kept open for potential future changes, and on the other hand, novel information had to be sourced by taking insights from the concurrent application of prior sourced information into consideration for subsequent search activities. While additional effort was observed to have been invested in order to perform this concurrent search for, and acquisition and application of external information, it allowed for a more timely response to emerging changes in the environment of the respective firm. Moreover, this improved the search for external information as, due to the concurrent application of externally sourced information, knowledge gaps and areas where insufficient knowledge existed could be identified and closed more promptly. Since current literature is rather silent about how the absorption activities are performed in detail (Lane et al., 2006), this study presents different patterns of how the absorption process is operated during innovation projects. Depending on the degree of newness of the project, the absorption process was performed either iteratively or punctual. Similarly, an overlap of different absorption phases was

observed in radical innovation projects, whilst a more sequential design was identified for the incremental innovations.

Models of absorptive capacity should therefore comprise a more fine-grained description of the design of the absorption process needed for different degrees of innovativeness. As a non-iterative process with no overlaps of individual stages was observed in the poorly performing radical project, it can in theory be derived that iteration and parallelism of stages may constitute an important design element for successful absorption during radical innovation. As current models have so far not discussed the conduct of the process, this finding adds a new dimension to the identification of the optimal approach to absorbing external information. This contribution, namely to add iterations and phase-overlaps to the definition of a process-model for absorptive capacity, is reinforced by insights gained in wider research on organizational learning. Crossan et al. (1999) already proposed iterations between the individual stages of the organizational learning process, which have been confirmed in subsequent empirical research (Crossan & Berdrow, 2003; Stevens & Dimitriadis, 2004). The above finding hence calls for a more comprehensive inclusion of research findings from the wider organizational learning literature in the field of absorptive capacity.

A further dynamic interaction has been identified as being present between the technical and market absorption process, namely that recently sourced market information supported the more focused absorption of technical information and vice versa. By learning about new opportunities for developing new services based on new externally identified technical options, for example, first conceptual thoughts of potential new services were created which were subsequently added by sourcing market information in order to confirm the viability of these ideas in the market place. Only as a result of the combination of these two absorption foci could a successful development of new services that were not known to the market beforehand become possible. This is, in part, supported by Atuahene-Gima's (2005) finding about the general benevolence of market and technical information for both radical and incremental innovations.

Hence, while existing research on absorptive capacity has focused to date on the importance of being capable of absorbing technical information (Cohen & Levinthal, 1990), the here presented findings indicate that a dual absorption of market and technical information was highly present in the successful innovation projects and increased the quality of the absorbed information as well as increasing the market fit of the subsequently developed new service. Such positive interaction between market and technical absorption processes was also observed to be present during

incremental innovation, although the magnitude of interaction was lower than during radical innovation.

All in all, dynamic interplays have been identified both *within* the market and technical absorption processes as well as *between* these two external learning activities. Organizations have to take into consideration that they need to embed a holistic external learning approach in their innovation projects which allows for a flexible handling of each phase of these two absorption processes as well as ensuring that market and technical absorption are being conducted at the same time in order to allow for the here identified beneficial “inter-process” information exchange. The following exhibits juxtapose the market and technical absorption processes during radical and incremental innovation:

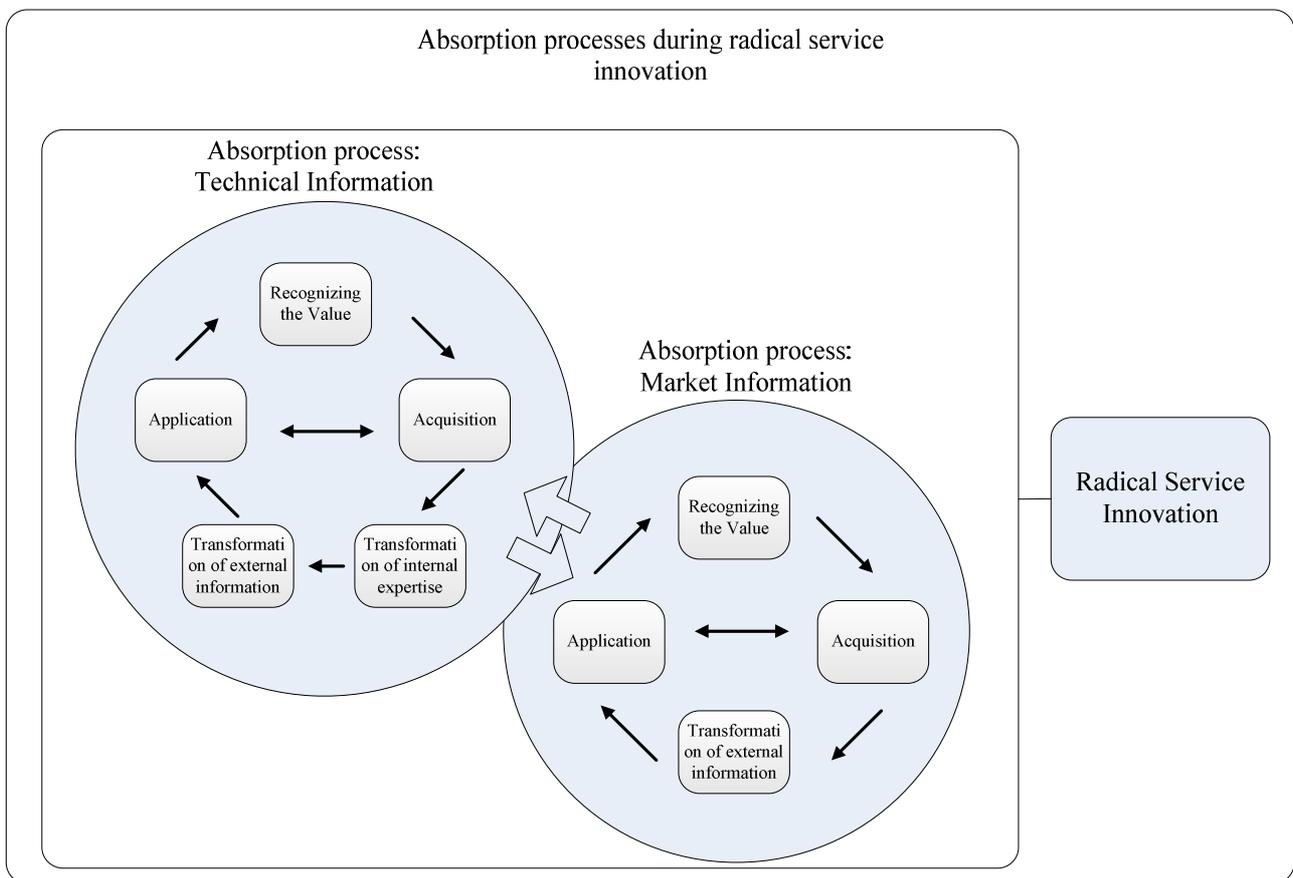


Exhibit 80: Absorption Process Dynamics for Radical Innovation

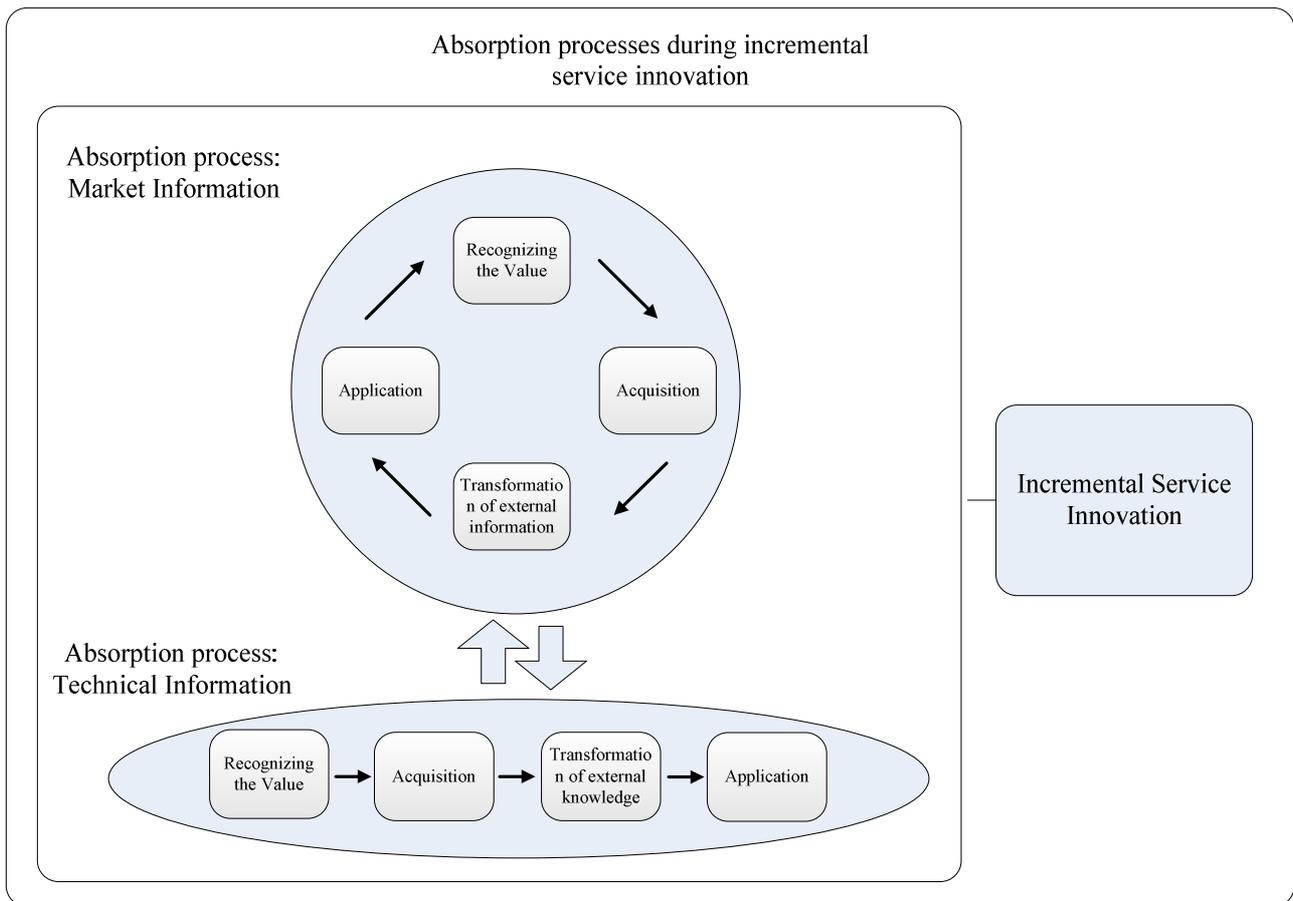


Exhibit 81: Absorption Process Dynamics for Incremental Innovation

8.1.3 ACAP and the Innovation Process

In this section the innovation process and its relationship with the general pattern of the observed ACAP process shall be discussed based on the five innovation projects reported in the single- and cross-case analyses. As the relationship between the overall absorption activities and its integration in the general innovation process is of interest here, no detailed differentiation between market and technical absorption has been performed in order to provide a general pattern. First the general innovation process shall be discussed, in order to set the stage for the discussion of its relationship with the already presented ACAP processes.

Regarding the innovation process itself, data revealed that for radical and incremental development projects, the innovation process differed most regarding the iterations and dynamics observed. In fact, while in the incremental innovation the development was done in a linear fashion, in the observed radical projects, a different picture emerged. Changes in the environment of the two observed banks necessitated a constant updating of the underlying service concept. This led to a

very late “freezing” of the concept. In consequence, the development processes could be better described as innovation cycles as the different phases were performed mostly more than once during the radical projects. This dynamic nature of the development activities during radical innovation confirms Van De Ven et al.’s (2008) findings on the dynamic and at times chaotic nature of innovation processes.

Notwithstanding the different dynamics observed, when comparing the processes of the different projects similar development phases were performed. In more detail, in all projects, regardless whether being of incremental or radical nature, activities such as idea generation, evaluation, customer inquiries, definition of objectives, concept writing, realization, training, and commercialization activities could be observed. The difference in the single projects pertained more to the way how the process was formally designed, but rather not regarding the types of activities pursuit. Hence, when comparing these activities to the existing process models in literature, substantial degrees of conformity can be identified. Due to this, the different processes observed in the case studies can become grouped together by means of applying Froehle & Roth’s (2007) process model. These authors review the literature and test a process model which incorporates prior research on the process of innovation in services. Their model comprises four phases, i.e. design, analysis, development and launch stage (Froehle & Roth, 2007).

As was identified in the literature review on the innovation processes already, different activities are comprised within each of these four phases. Data analysis revealed that these activities identified by Froehle & Roth (2007) resemble those which were observed in the different innovation processes of the case study firms. Due to this fit of the observations with the process model by Froehle & Roth (2007), this model serves as a unifying framework for all observed innovation projects. The only difference observed in my cases pertains to their visualization of the process model as an innovation cycle. As was identified here, a cycling process pattern was observed only during the radical innovation projects, yet not regarding the incremental projects. Hence Froehle & Roth’s (2007) argument on constant feedback and feed-forward loops did not match with the incremental innovations studied here. These differences are portrayed in the following exhibit.

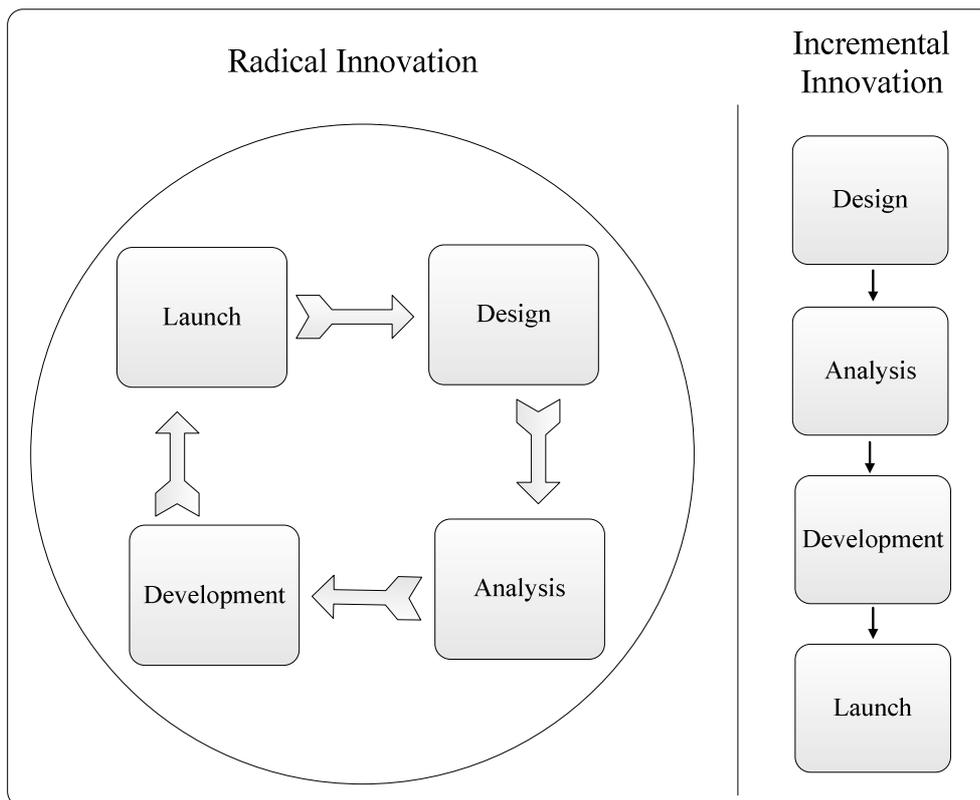


Exhibit 82: Observed Innovation Processes

With these findings on the differentiated nature of the innovation process depending on the degree of newness of the underlying innovation, further refinement of existing innovation process models in literature become possible. To date, many process models have been presented which do not take into consideration their potential differentiated nature when applied to either radical or incremental innovation. In fact, process models such as the ones by Alam & Perry (2002) or Froehle & Roth (2007) do not discuss their models with respect to radical or incremental innovation. While Froehle & Roth's (2007) model fitted both incremental and radical projects in terms of the process-inherent activities, its cycling pattern could only be observed during the radical projects. During the incremental projects, a rather linear process was observed. This differing pattern of the innovation process hence has to be taken into consideration when applying Froehle & Roth's (2007) process model to service innovations which differ in their respective degree of newness.

Regarding the relationship of ACAP with the innovation process, findings suggest that the innovation output was highest when the innovation process and the ACAP process were synchronized. This was observed to be the case in the successful cases while a lagging ACAP process was observed in the struggling radical project. Thereby it was not important as to whether incremental or radical project were observed. In both innovation categories it was important that

during the early stages of the innovation process also the initial stages of the ACAP process were conducted and so forth. Yet, what differentiated radical from incremental projects was the number of iterations of the ACAP and innovation process. In both successful radical projects, ACAP and innovation processes iterated several times in parallel in order to respond to novel insights and changes in the respective environments.

This was not observed in the incremental projects to the same extent. Some iterations of the ACAP process were observed, too, yet these were not accompanied by iterations of the innovation process itself. Reasons for this lay in the lack of novelty of the absorbed information during the later phases of the innovation projects. For example, during late phases of the innovation projects, again customer feedback was acquired in order to assure that the service concept would fit the customers' needs. These iterations did, however not result in the need to iterate the general innovation process. Reasons could be found in the fact that the information which was obtained during these later phases of the project did not contain information which would have necessitated making changes to the already defined service concept. For example, during the OnlineBusiness project, constantly customer needs were monitored. These, however, did not change over the course of the innovation project, and hence did not cause changes to the innovation project. Hence, while iterations of the ACAP process can trigger iterations of the whole innovation project, as was observed in the radical projects where novel market trends made repeated changes to the service design necessary, ACAP iterations may also result in information which does not have consequences for the general innovation process.

These findings offer several novel insights as to how the relationship between the ACAP and the general innovation process functions and hence illuminates the process of ACAP as was called for by Lane et al. (2006). Most prevalent was the observation that the ACAP process in general paralleled the innovation process. Any lagging behind of the ACAP process did result in errors and necessary re-work at the level of the general innovation outcome. In addition, however, the ACAP process iterated sometimes more often than the general innovation process. This meant that not always the absorption results influenced the conduct of the innovation project, but were rather performed in order to assure that the innovation process was on the right track. Such iterations during incremental innovation were – however – only observed for the absorption of market information. The absorption of technical information was not repeated in the observed cases. Hence overall, while for radical projects both the innovation and the ACAP processes iterated several times both regarding market and technical information, during the incremental projects, a linear

development process was observed which was accompanied by mostly linear ACAP processes which – for market information – were iterated again towards the end of the process, yet without resulting in any consequences for the general conduct of the innovation process. Hence, during radical innovation the via the ACAP process absorbed external technical and market information was highly novel and hence necessitated changes made to the basic service concept. In incremental innovation, in turn, repeatedly new market information was absorbed, the content of remained however relatively stable and hence did not cause any iterations to be made to the general development process. This insight fits with the general differences between radical and incremental innovation as was identified e.g. by DeBrentani (2001) or Avlonitis et al. (2001). De Brentani (2001) argues that “a well-planned NSD process can provide important benefits, particularly when developing incremental new service offerings” (DeBrentani, 2001: 182). This supports the here identified notion of the more stable and linear nature of both the general innovation process and the lower frequency of ACAP-iterations during incremental innovations. The following exhibit visualizes the synchronized innovation and absorption processes for both incremental and radical innovation, as was observed in the successful cases.

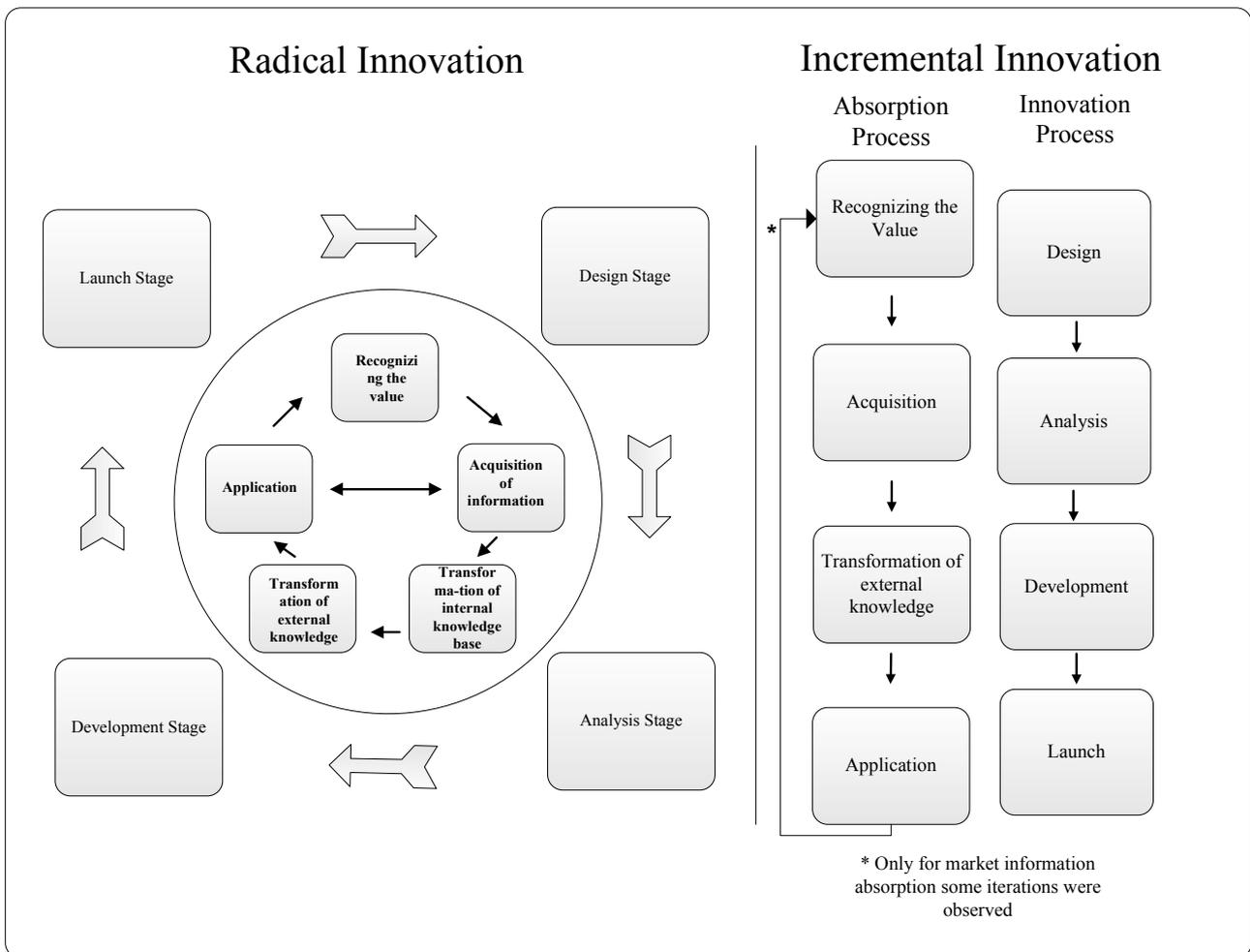


Exhibit 83: ACAP and Innovation Process Relationship

8.2 Facilitators and Inhibitors of the Absorption Process for Radical and Incremental Service Innovation

In the data analysis, several factors were investigated which were either found to influence absorptive capacity in earlier empirical studies, or which emerged from the data as having influenced the external learning activities in the different innovation projects.

Power relations to internal and external actors were identified in the data as having played an important role in freeing up internal resources for absorbing novel technical and market knowledge. In addition, these also supported the decision on which trend outside the firm to focus on in order to direct the external learning activities in the direction required for the development activities. In this case, mostly internal actors, such as the head of innovation management at BBVA, or the board of directors at BankPro, engaged in decision making activities in order to ensure that internal resources in the form of personal and financial resources were committed to the innovation projects. This did not differ across successful radical and incremental innovation projects, supporting the conceptual argument put forward by Todorova & Durisin (2007). These authors conceptualised that powerful actors influenced a firm's ability to absorb external information by either granting or denying resources for these activities based on their preferred goals, in line with the work published by Easterby-Smith et al. (2008). Furthermore, they argue that in particular the transformation or assimilation of external information was influenced by these actors. In the data, a more general influence was observed, as internal power was used to influence the focus of recognition and acquisition as well as the resources for subsequent phases of the absorption process.

In addition, Todorova & Durisin (2007) argue that external power relations are particularly present in the form of powerful customers influencing the development activities of the absorbing firm in order to fit their needs. In our data, however, external power relations were only observed to be present at BankPro where an overarching association of retail banks affiliated to BankPro used their position in order to make their members aware of the importance and opportunities lying in the envisaged regulatory changes. Hence, this association influenced the absorption activities for the radical Wohnriester project. However, powerful business customers influenced the absorption of external information in BankPro's incremental project. In this case, major customers demanded that BankPro develop new features for their online banking which the business customers of BankPro would subsequently integrate into their respective online banking applications. Due to this, BankPro engaged with its internal experts to search for, acquire and apply relevant external information in

order to respond to the need issued by its business clients. Consequently, with these findings Todorova & Durisin's (2007) conceptual propositions about the influence of customers on the absorption process did not apply in every case and were, in part, moderated by the degree of newness of the underlying innovation for which information was absorbed.

Further, the **mindset** of the organization members involved in the absorption and development activities was identified as an important facilitator for absorption during radical innovations. Organization members needed to be open to external information and to be aware of the novel and radical nature of the underlying innovation in order to accept that new external information was required which would be different from their existing expertise sets. Serious external learning only took place with this openness and was observed to be obstructed when such an awareness of the novelty of the project did not exist. In incremental innovations this was not observed to be necessary, as less distant information needed to be absorbed.

Evidence from the case studies presented here is supported by Todorova & Durisin's (2007) conceptual argument that such change in the mindsets of organization members is necessary in order to become capable of transforming external information which is distant to the existing knowledge base of the organization. Indeed, data revealed that, due to a lack of such change in the mindsets of the organization members, no need was identified to adapt the organization in order to make it capable of exploiting the novel information inside the organization. In contrast, due to the awareness of the distance and the corresponding need to learn about new technical options, the two successful organizations managed to transform themselves in order to better understand and apply the novel information needed for their radical innovation projects. Thus, with the identification of the facilitating or inhibiting role of the organization members' mindsets, Todorova & Durisin's (2007) conceptual work is buttressed with first empirical insights into absorption during radical innovation projects.

Further, Cohen & Levinthal's (1990) argument concerning the problematic effect of resistance to new external information by organization members is also further detailed, as data suggests that in order to accept external information, the degree of newness and the resulting distance of the envisaged radical innovation to existing services first had to be made clear to internal staff. Once this awareness had been created, new external information was valued and staff were willing to adapt themselves to the new input.

In addition to the emergence of the important role of the above discussed factors, the findings on the partial overlap of the internal expertise areas, i.e. **cross-boundary expertise**, as well as the need to provide experts with the opportunity of sharing newly gained insights via **social integration mechanisms** was identified as supporting existing findings in absorptive capacity literature. Zahra & George (2002) argue that formal and informal possibilities to share knowledge among organization members supported the absorption activities of a firm. Cross-boundary expertise was also identified in the cases studied here as having facilitated the absorption of external information in radical innovations. In incremental innovations, acquired information was also shared among organization members, yet the frequency and intensity of sharing was reduced which made formal and informal ways of sharing the reduced amount of external information less relevant to the overall absorption and subsequent innovation activities. In a similar vein, the findings about the importance of internal experts in maintaining a general understanding of related expertise areas in order to improve collaboration and increase awareness of the relevance of certain information for other internal organization members, was identified to be important to absorption in both radical and incremental projects.

It is, however, important to consider that a potential overlap of expertise areas may also be harmful. As Cohen & Levinthal (1990) already mentioned, too much overlap may lead to an overly inward looking organization as internal experts share the same language and feel more comfortable when dealing with the internally available knowledge. On the other hand, too much overlap may impede the openness towards externally available information. “In the limit, an internal language, coding scheme, or, more generally, any particular body of expertise could become sufficiently overlapping and specialized that it impedes the incorporation of outside knowledge and results in the pathology of the not-invented-here (NIH) syndrome.” (Cohen & Levinthal, 1990:133) One way to deal with this potential trade-off, according to these authors, is to maintain a high degree of variety of internal expertise areas as, in this case, overlaps may not impede but even support overall absorptive capacity, since novel linkages across diverse knowledge domains are possible. At the different organizations, knowledge overlaps, especially between general project management staff and legal, technical and marketing domains, was observed. In addition, experts from law, technology, or marketing had some basic understanding of the other mentioned areas and could thus interact more easily with these key players in the absorption process. During the radical projects, the degree of overlap remained at a basic level at which it sufficed to understand each other and identify the need to involve the other areas, where needed. Cohen & Levinthal’s (1990) conceptualisation of the relationship between too high degrees of overlap of expertise areas inside

the firm and the potential consequence of internal staff resisting externally available information (not-invented-here syndrome) is hence also supported. During the incremental projects, however, the overlap of expertise areas was increased, resulting from the fact that similar project members had already collaborated in similar projects in the past, supporting March's (1990) argument on the proximity and routine nature of learning during incremental or exploitative innovations.

In the data, in addition to the other presented factors facilitating or inhibiting the absorption process for service innovation, the existing **prior knowledge base** of the case study organizations constituted a substantial element in the absorption of both market and technical information. As several authors argued in the field of knowledge management and organizational learning, important knowledge types constituted the know-how existing in the firm, and knowing about it (Jensen et al., 2007; Bierly et al., 2000; Grant, 1996). Know how thereby tends to be more implicit and is reflected in the organization members' expertise (Starbuck, 1992), while knowing about something is regarded as being of a more explicit nature (Grant, 1996), such as benefitting from previously collected technical, customer or market data.

It crystallised during the cross-case analysis of incremental and radical innovation projects that the nature of relevant prior knowledge differed across these projects: Absorption of external information benefitted differently from different prior knowledge inside the same organization. More specifically, during radical innovation, it was observed that the innovation project expertise of the organization members who were involved in prior innovation projects in the past supported the absorption of new external information, as employees were aware of the information needs of other involved departments or could anticipate future information needs more easily due to their knowledge about next steps in the development process. In the incremental projects, a reliance on concrete information stored in the company's databases was rather observed to be highly present. In the incremental projects, customer databases or prior technical expertise were used in order to interpret new information influx about customer needs, or new technical options.

However, data also showed that explicit information was also needed in radical innovation, whereas in incremental innovations, similarly, absorption also benefitted from the implicit expertise of the involved organization members. In the data analysis, however, the relevance of experiential knowledge to radical innovation was identified as higher than for incremental innovation, and vice versa, in incremental innovations more use of concrete stored information was used for absorbing new information than was the case in the absorption during radical innovation.

While Cohen & Levinthal (1990) already mentioned that not only codified prior knowledge is important to absorb new information, Jensen et al. (2007) present findings on the beneficial role of both codified and experiential knowledge in innovation, without taking the degree of newness into consideration. Although one type of information may be more important depending on the innovation context in which new information is absorbed, both types of prior knowledge need to be present in the organization in order to facilitate external learning. Hence, data from these case studies adds further insights into how organizations should balance various sets of prior knowledge for absorption during radical or incremental innovation projects.

Besides the gained insights concerning the various types of prior knowledge needed for absorption in different innovation contexts, the breadth of the knowledge base also has to be considered (Lichtenthaler, 2009). As crystallised in the analyses of the “Cross-Boundary Expertise” and “Social Integration Mechanisms” factors, the observed organizations incorporated a relatively large breadth of internal expertise areas, yet in one case, these areas were not properly interconnected, leading to reduced absorption of external technical information. Hence, while the breadth of internal expertise existed in all organizations, what differentiated the successful cases from the struggling case was how well these broad areas were connected among each other and to the absorption activities. Yet, while Lichtenthaler (2009) argued in favour of a general benevolence of broad prior knowledge bases of absorbing firms, the facilitating effect of such breadth was particularly visible in the radical projects. For example, during the *tucentas* project, the absorption of technical information benefitted from the broad expertise in technology scouting and consulting departments, as BBVA supported experimentation with novel technologies within specialised departments of their innovation centre.

Related to the facilitating role of different types of prior knowledge for the absorption process, the **firm size** of the case study organizations impacted on the absorption activities, too. “Absorptive capacity is positively related to innovation and performance, and it has significant and positive correlations with firm size...” (Lichtenthaler, 2009: 835), as “larger firms usually have larger knowledge bases” (Lichtenthaler, 2009: 831). Indeed, it was observed that the larger firms in the cross-case analysis had more internal expertise and maintained broader expertise areas than the medium sized organization. This facilitated the first phases of the absorption process during radical and incremental innovation projects. Yet, interestingly, at least during the later phases of the absorption process during radical innovation, the large firm size no longer acted as a facilitator,

with increasing firm size more effort had to be placed in implementing the gained insights in the development activities. Reasons for this could be found in high degrees of formalisation (Tushman & O'Reilly, 1996) found in large organizations. In fact, notwithstanding the struggling characteristics of the Inno-Card innovation at BankXY, this firm was considerably smaller than the other two organizations and showed lower degrees of formalisation of the work routines and decisions making procedures which supported the implementation of the gained insights in the organization.

While Lichtenthaler (2009) found that firm size is positively related to all process phases of absorptive capacity, his measurement of the application phase of absorptive capacity contains eight survey items, of which only one enquires about the ease with which newly acquired information is applied in product development. Hence, future research needs to clarify the impact of organization size on the different phases of absorptive capacity. Furthermore, Lichtenthaler's (2009) finding on the generally beneficial role of firm size on absorption may have been caused by the lack of consideration of differentiating between absorption during incremental and radical innovation. Due to this omission, no direct comparison of these findings with the here presented insights is possible.

Likewise, as the absorption process was influenced by the nature of the prior knowledge in the firm, the **nature of the external information** was also identified as having influenced the ease with which its absorption could be conducted. At the same time the ambiguity of the externally sourced information necessitated extra internal time and personnel resources to be invested in the acquisition, transformation and application of such information. As Van de Ven et al., (2008) argued, ambiguity is a commonly found characteristic during innovation. The authors continue by arguing that due to ambiguity and the uncertainty regarding the innovation tasks resulting, in part, from this, dynamic and nonlinear approaches may be more appropriate than following a linear, stage-gate process of innovation. This was also observed in the case organizations where high degrees of ambiguity existed. In these situations observed in the radical innovation projects, absorption was performed with an increased number of iterations as well as overlaps between the individual absorption phases.

This nonlinear and dynamic approach was necessary in order to become capable of using the ambiguous and uncertain information for the development activities. Through this approach, the ambiguity could be partly reduced, as more and more relevant information could be acquired and transformed which facilitated understanding and reduced the uncertain character of the external

information. The overlaps also helped to make sense of the ambiguous information through ongoing discussions and exchange of interpretations among the experts searching for new information and those applying it in the development of the new service.

This sensemaking activity (Weick, 1993) was consequently the result of high degrees of ambiguity in the externally sourced information and, due to the extra effort necessary to understand such information, high degrees of ambiguity inhibited efficient absorption. Ambiguity was, however, only high in radical projects, consistent with main stream theory on organizational learning (e.g. March, 1991). In incremental projects, information did not pose as many challenges regarding correct interpretation as was the case in the radical projects. This was due to the lower level of novelty of the external information. In the observed cases, the information needed had either already been established in practice or, in the case of customer feedback, did not leave much space for different interpretation.

Further, while the ease of learning should decrease with high levels of complexity, (Lane et al., 2006), case study data indicates that relatively high levels of complexity were not observed as having inhibited absorption. The case analyses revealed that in all innovation projects the sourced information was characterised as having similarly high degrees of complexity. The technical information comprised complex algorithms or software technology, whereas market information contained many characteristics which needed to be analysed together in order to arrive at an interpretation of its meaning. It seemed that the organization members were used to dealing with such levels of complexity. As a result, no inhibiting influence of high degrees of complexity was identified in the data. This may, however, be due to the fact that absorption activities were only observed in the retail banking sector.

Finally, besides the complexity and ambiguity of the externally sourced information, its implicit or explicit character (Starbuck, 1992) was observed to influence the ease with which the absorption process could be conducted. In more detail, in radical projects, information was frequently sourced from other partner organizations which possessed expert knowledge about specific, mostly technical, domains. Such knowledge could not be easily transferred, as it was not codified in documents or databases, but rather resided within the expertise areas of the employees of the partner firm, which is in line with the arguments put forward by Lane & Lubatkin (1998). Such an implicit character demanded a more interactive (Lane & Lubatkin, 1998) learning approach, which

increased the overall effort to learn this new knowledge. In contrast, explicit, codified knowledge was absorbed with more ease, assuming similar degrees of complexity and ambiguity involved.

The degree of explicitness of information varied in radical and incremental projects. In the radical projects, it tended to be more implicit, while in incremental projects a rather explicit nature of the external information was identified.

Interestingly, the information sourced from customers showed relatively high degrees of implicitness. In both incremental and radical projects, market information was frequently sourced by asking customers directly for their feedback and underlying needs. As the case study firms were searching for underlying needs and more sophisticated feedback on their service concepts at later points in time, collection of this information was conducted by way of open questions, focus groups, and, in part, observations, as customers could not deliver the information needed by the case study firms at once. Instead, market research experts within the case organizations analysed the responses and observations and translated them into codified information to be used for the innovation activities. Hence, in all projects implicit information needed to be made explicit which demanded a similar work load in the incremental and radical innovation projects. As argued by von Hippel (1994) and continued by von Hippel and Oliveira (2009) in current research: “First, novel functionality involves a significant amount of need information, and users generally understand their needs better than do producers. After all, need information originates with users, and there is often a significant cost involved in transferring that information to producers – the information is often ‘sticky’” (Von Hippel & Oliveira, 2009: 18)

As regards the identified facilitating role of the **network** of the observed organizations to external partner firms, especially the quality of the relationship to the information donators and partial overlap of their knowledge bases with the knowledge residing within the case organizations was observed to be important in order to tap into information residing within these organizations. These characteristics of the network partners were identified as having facilitated both radical and incremental projects. Literature on interorganizational learning and absorptive capacity supports these insights, yet without looking at the influence of these factors on absorption during radical and incremental innovation. Lane & Lubatkin (1998) found support for their hypothesis that “the relevance of the student’s basic knowledge to the teacher firm’s knowledge base will be positively associated with interorganizational learning.” (Lane & Lubatkin, 1998: 464) In their data set consisting of R&D alliances in pharmaceutical and biotechnology firms, the authors revealed that some overlap of the knowledge base of two collaborating organizations was necessary in order to

allow an understanding of the new information available at the partner firm. In the data presented here, some overlap likewise existed between the focal firm and the information donator, as exemplified in the case of BBVA, where prior to the acquisition of relevant information for the *tucuentas* project, an internal technical department was established which had the primary role of experimenting with novel technologies. This investment in distant yet related knowledge domains within the bank facilitated the absorption of information from the technology partner of the *tucuentas* project, i.e. *Strands.com*.

Likewise, at *BankPro*, several internal legal experts shared a basic understanding of legal domains in order to be able to understand the information influx from the German regulatory institution in relation to the *Wohnriester* project. Such a partial overlap of information was also observed in the here presented cases, not only in the incremental but also in the radical innovation projects. Due to this finding, it may be argued that even if distant knowledge is needed, e.g. for radical innovation, at least a minimal overlap between the information available at the partner organization or other information source is required in order to take advantage of this information. This is in concordance with overlaps identified between internal expertise areas of the case study firms (Cohen & Levinthal, 1990). There too, a basic knowledge of other domains helped experts to better understand the knowledge available inside the other expertise areas.

The identified facilitating role of the high quality of relationships between the absorbing and the donating network partners is a well known factor in current absorptive capacity literature (Lane et al., 2006). Yet debate has emerged regarding its facilitating role, as the insignificance of trust for learning has recently been identified (Lane et al., 2001). While this study is limited in terms of the number of cases studied, data has confirmed that the observed “expectation that the partner will act in good faith” (Lane et al., 2001: 1157) facilitated the absorbing firms’ access to the available information residing in the partner firm. Hence, at least in the cases studied here, such positive future expectations of the partner’s plans (i.e. trust) supports the learning effort of the absorbing firm and hence provides some further evidence to the debate which has emerged.

Finally, the existence of several sources for the absorption of, in particular, technical information was observed to further facilitate absorption of technical information. In all cases, several sources were used in the firms’ attempts to understand new technical information. In literature, the positive effect of investing in increased technological networking has been identified as a facilitator for external learning (Pennings & Harianto, 1992). Indeed, in the case data, inputs from various

network sources were used to find answers to different areas of the same information need, hence facilitating the absorption of more complete information. At BankPro, for example, large amounts of information concerning the regulatory change were sourced from the regulatory bodies, yet information on how to apply such information was, in part, being sourced from affiliated organizations to which internal experts had personal relationships. Sourcing information for the same purpose from different sources thus increased external learning. This was, however, only possible due to the high connectedness of the studied organizations. Without such linkages, gaps in the sourced information would have hampered the timely transformation and application which could have delayed the whole innovation project. Hence, besides the quality of relations and the basic overlap among the different knowledge sources, the breadth of connections also facilitated the absorption of external information (Pennings & Harianto, 1992).

Regarding the differences in these facilitating characteristics of the network dimensions of absorptive capacity between radical and incremental innovation, it was observed that the quality of the relationship to the external information donator facilitated absorption during both radical and incremental innovation, yet was of less relevance to incremental innovation as less information was sourced from external networking partners. In particular, the breadth of the network was not observed to have facilitated absorption during incremental innovation projects. Most of the external information needed was readily available in the market and did not have to be combined with different “bits of information” from multiple sources. In addition, the overlap of the external information and the internal knowledge base was larger with the incremental innovations, as the topics dealt with were more familiar to the internal experts. This concurs with the general notion of rather exploitative learning activities during incremental innovation, involving knowledge areas which are usually relatively close to the existing experience of the focal firm (He & Wong, 2004).

Finally, as data on the absorption activities was collected in a sector rarely studied in previous absorptive capacity literature, the potential influence of the distinct context for protecting services developed in the banking industry was studied. As already pointed out in service innovation literature, one relevant difference between product and service innovation constitutes the lack of **intellectual property** protection options for novel services (Miles, 2006). In more detail, while for technological innovations patents can be used to protect, at least in part, the costly development of a new product against direct imitation, in the case of services, such copying of newly developed services cannot be avoided by means of intellectual property rights mechanisms. As identified in the data, the reactions of the studied banks to this idiosyncratic challenge differed depending on

whether the innovation was based on general change in the industry's characteristics, or whether the innovation was idiosyncratic to a single firm. In the case of BankPro, where a general change in the bank's environment triggered the development of a new service, similar responses were expected by other industries' incumbents, whereas in the case of BBVA, an idiosyncratic investment in technology reduced the likelihood of early imitation by BBVA's competitors. Due to this difference, BBVA already opened its service development prior to the market launch in order to obtain concrete feedback from its top customers, while BankPro refrained from doing this, and waived the opportunity of obtaining pre-market launch feedback.

These different behaviours may be explained by the fact that BankPro invested heavily in identifying the optimal logic for responding to the legal change with an optimally designed financial offering, while BBVA invested in technology which needed to be implemented in the organization in order to make the novel service work. This led to the fact that, although investments were high and idiosyncratic to both organizations, the identification of the optimum logic for the new service could easily be imitated by competitors, while the design and implementation of technology by BBVA could not be as easily imitated by competitors. The latter pertains to the fact that the competitors would also need to implement the necessary technology in their organizations, whereas this would not have been necessary in order to imitate BankPro's service. Hence, the degree to which the absorbed technical information was embedded in a context-specific way (Polanyi, 1966) increased the difficulty with which the newly developed service could be easily imitated by the bank's competitors, which goes in line with the arguments raised by Prahalad & Hamel (1990). The more the tacitness regarding the technical elements of the newly developed service increased, the more relevant market knowledge was absorbed. This was due to the fact that the threat of losing first mover advantages as a result of a premature leak of valuable information about the characteristics of the new service was reduced by exposing the service concept to customer's feedback.

Overall, the processes for absorbing market and technical information, as well as several factors influencing the absorption activities have been identified and discussed in the above. The following exhibits summarize these findings and provide an overview of the main findings.

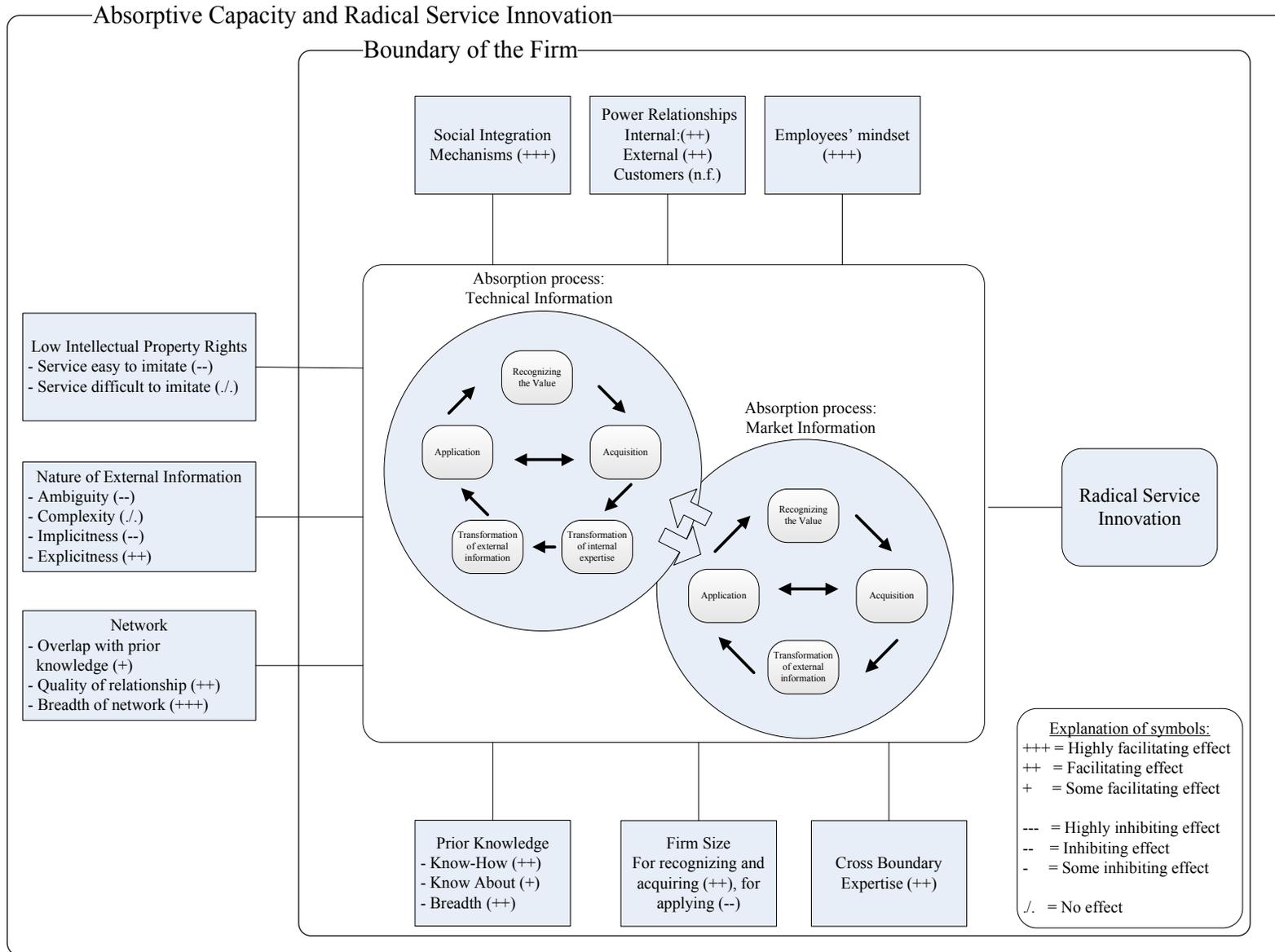


Exhibit 84: Absorptive Capacity Framework for Radical Service Innovation

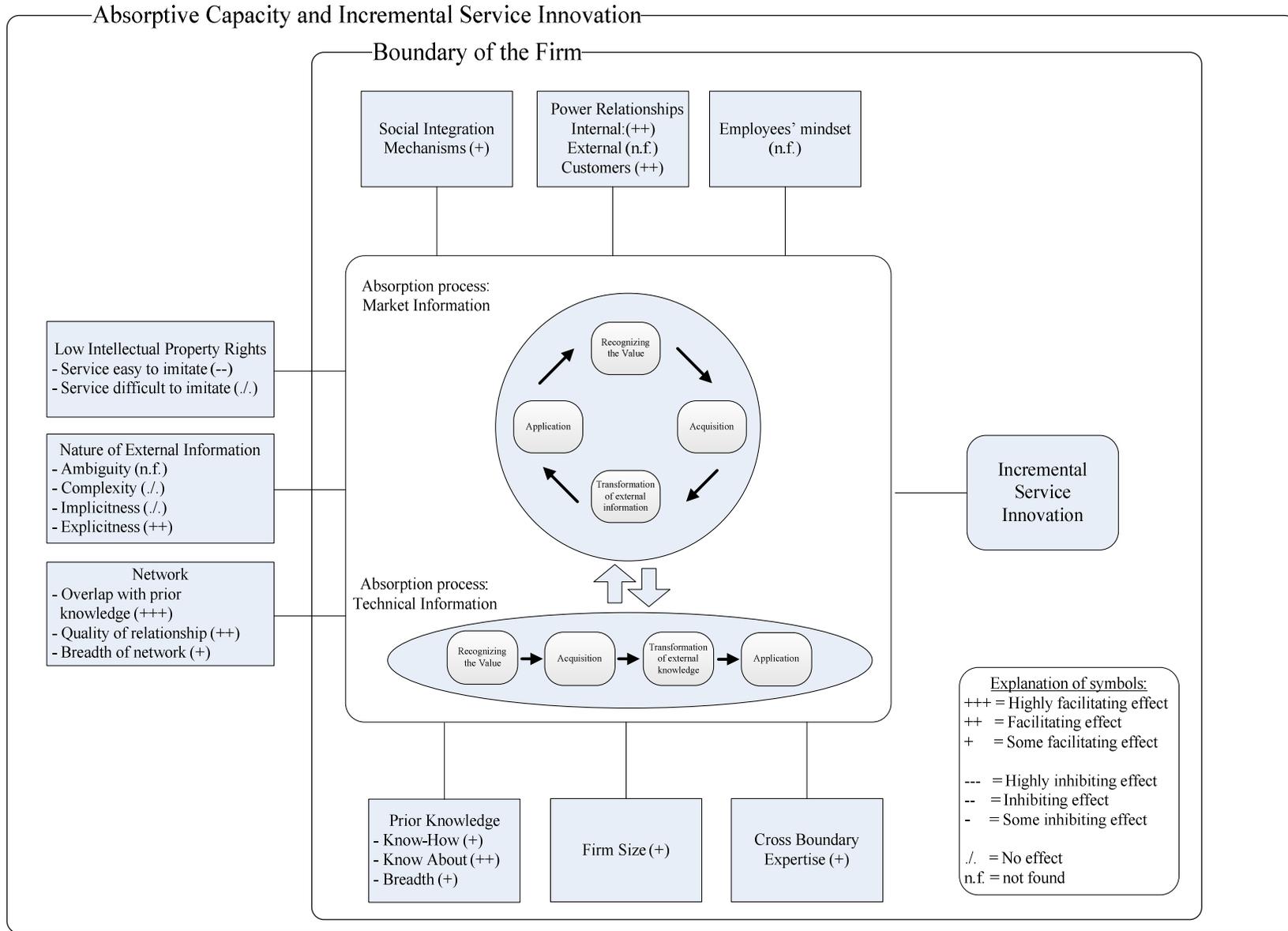


Exhibit 85: Absorptive Capacity Framework for Incremental Service Innovation

8.3 Emerging Insights into Related Fields of Innovation Research

8.3.1 Ambidexterity and the Role of ACAP

In addition to the contribution of the findings presented here regarding the process and enablers of absorbing external information, an additional insight gained in this study concerns the wider management of innovation in organizations. As already argued in the review of the literature, it is important for firms to develop both radical and incremental innovation (i.e. being ambidextrous) in order to excel in the market place (Tushman & O'Reilly, 1996; He & Wong, 2004). However, firms have difficulties achieving this goal as the mechanisms needed for both differ considerably (March, 1991). On the other hand, becoming capable of developing both incremental and radical innovation has been shown to be possible (Bierly & Daly, 2007). How these firms achieve this, however, remains a question open to debate, as different strategies have been proposed in literature, i.a. spatial, timely, or simultaneous approaches (O'Reilly and Tushman, 1996; Adler et al., 1999; Gibson and Birkinshaw (2004).

In the organizations presented in this case study, two developed both radical and incremental new services, while one organization failed to do so and struggled with a single development activity. From the three identified strategies for achieving ambidexterity, both successful organizations differed in their approaches of ambidexterity.

Firstly, BankPro separated the radical from the incremental development at an early stage. As identified in the data, and as already anticipated by March (1991), limited resources played an important role as to why in particular the radical projects did not permit other development activities to be present. This was due to the fact that the radical innovation in question affected the whole organization and demanded the dedication of considerable available resources. Affected by this, other development activities tended not to receive sufficient resources, necessitating their development at a later time, after the radical innovation had been launched in the market. In fact, as existing research showed, service development is not restricted to the pure design of the service offering, but rather spans many parts of an organization, as the process of delivering the new service product tends to be affected by each service product development (Gallowj, 1998), which in turn supports the limiting role of the firm's available resources.

Secondly, BBVA succeeded in simultaneously developing radical and incremental innovation, as identified in the cross-case analysis. Reasons for achieving such ambidexterity were rooted in the availability of considerable resources due to the funding of innovation projects by the general innovation plan of BBVA. This plan resulted in the creation of a separate Innovation Centre staffed with experienced project managers and linked to financial funds dedicated to the exploration of new ideas. Hence, innovation at BBVA could be pursued without constraints posed through the bank's daily operations. Thus, in comparison to BankPro where different resource availability was present, BBVA could, for example, employ specific full time project managers for each innovation project, and had the resources to invest in external start-up firms in order to obtain the necessary expertise for the development of new services. Hence two strategies for ambidexterity were observed, which are shown in the following exhibit.

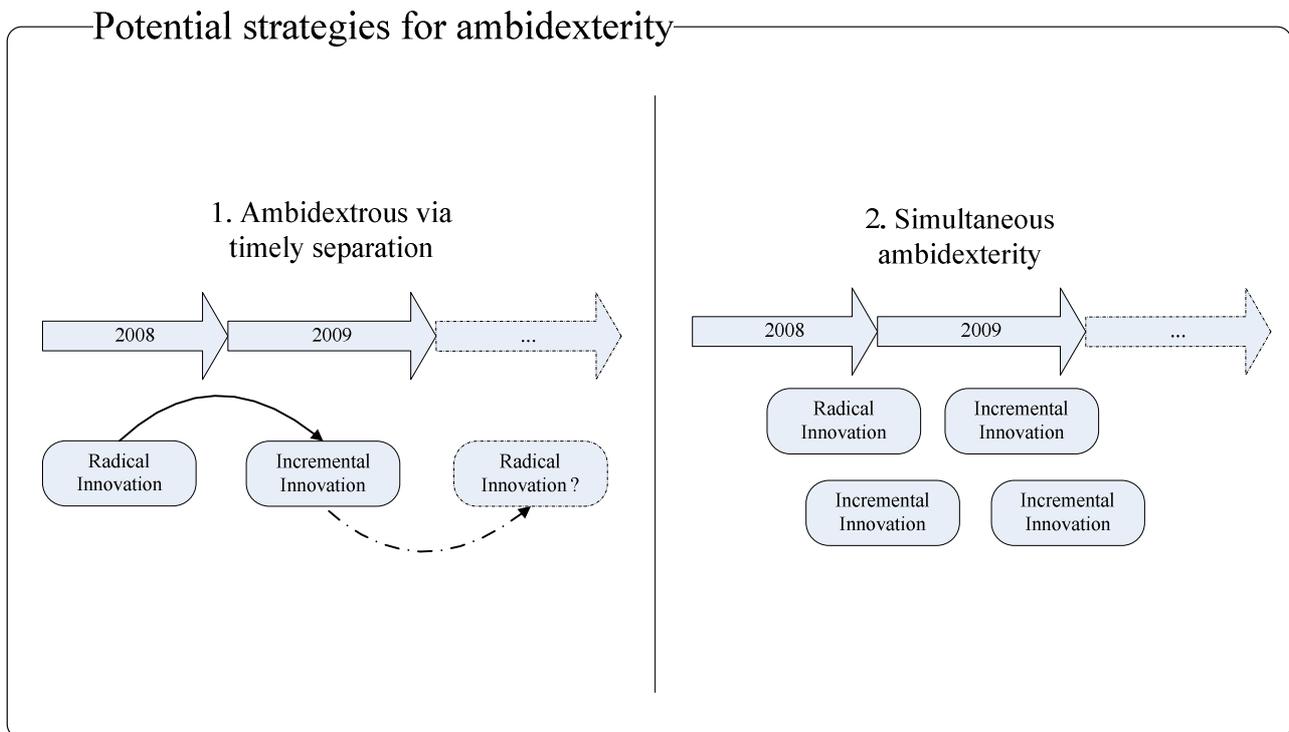


Exhibit 86: Potential Strategies for Ambidexterity

As a result, although the patterns for ambidexterity differed between BBVA and BankPro, in general resource availability was crucial to both organizations in their decision to either parallel or iterate radical and incremental service development. Hence, March's (1991) general caveat about the limiting role of resource scarcity in achieving a balance between exploration and exploitation has also been found here. In addition, this finding contributes to the general debate as to how the resource situation of an organization influences its learning capability. Hence, as both incremental

and radical innovation are widely regarded as outcomes of either exploratory or exploitative learning (He & Wong, 2004), the findings here indicate that a stronger resource position of an organization also led to higher capability to learn, thereby supporting Fichman and Kemerer's (1997) findings, and contradicting Kraatz & Zajac's (2001) results from a study of large universities.

Another contribution to the literature on ambidexterity was made regarding its measurement in current literature. Existing studies on ambidexterity, which investigate the "simultaneous" achievement of radical and incremental innovations, assess ambidexterity in their mostly survey-based instruments by asking respondents to indicate whether their organizations had succeeded in developing radical and incremental innovations within the last three years (e.g. Athuahene-Gima, 2005; Bierly & Daly, 2007; He & Wong, 2004). The iteration between radical and incremental innovation observed at BankPro, however, took place within a period of 1.5-2 years. From a theoretical perspective, the observed ambidexterity would thus fall into the assessment criteria for "simultaneous ambidexterity". With this gained insight, future studies should engage in more longitudinal studies of ambidexterity rather than finding out with the aid of retrospective survey instruments. By doing so, iterations in relatively short periods of time could be observed which would otherwise be assessed as simultaneous ambidexterity.

Notwithstanding their differences regarding the simultaneous or iterative approach to developing incremental and radical innovations, both organizations were very successful in absorbing external information. As Bapuji and Crossan (2004) argue "...research suggests that external learning complements a firm's internal learning and helps to avoid learning traps." (Bapuji and Crossan, 2004: 409). The high degree of absorptive capacity in these firms was identified as having facilitated their achieving the development of both incremental and radical innovation. In more detail, the existing knowledge and expertise inside the organizations helped to develop the incremental innovations, whilst the established learning process to look for external information served to explore new opportunities outside the existing competences and domains of the two organizations. The development of both radical and incremental innovations was supported in this way by maintaining procedures in order to benefit from exploratory ideas and concepts outside the boundaries of the firm. In this fashion the internally existing expertise sets and knowledge useful for incremental innovations yet harmful to radical innovations (Athuahene-Gima, 2005), did not interfere with the exploration activities needed for radical innovations (Gupta et al., 2006). This was

due to the fact that exploratory ideas were obtained from distant sources outside the firm and consequently ideas were less influenced by existing convictions based on prior internal experience.

This finding adds further to current debates on ambidextrous organizations. As already pointed out in the discussion on ambidexterity, a debate emerged as to whether the simultaneous development of radical and incremental innovations constituted two opposing ends on a continuum, or whether these two innovation activities complemented each other (Knott, 2002, Gupta et al., 2006). The pattern found here, namely that one organization struggled even when only developing a radical innovation, and the fact that at BankPro, several resource constraints were active, necessitating the timely separate development of radical and incremental innovations, reveals the challenge posed if both types of innovation need to be developed inside one organization. Consequently, the perspective taken by Knott (2002), who argued that exploratory and exploitative innovation would complement and thus not oppose each other, could not be supported in all cases. On the contrary, March's (1991) basic notion of the difficulty in achieving such duality in innovation was confirmed, which also opposes recent publications arguing that the difficulties in achieving ambidexterity have been overrated, as Bierly III and Daly (2007) stated: "...our finding of high correlation between exploration and exploitation suggests that firms can simultaneously pursue exploration and exploitation and the organizational barriers discussed in the literature appear to be exaggerated." (Bierly III, Daly, 2007: 508).

8.3.2 ACAP in Service Innovation vs. Product Innovation

So far, the ACAP process and its enablers and inhibitors have been reviewed by looking closely at radical and incremental service innovations. However, as already mentioned in the literature review section, service innovation research comprises a debate as to how service innovation practices differ when compared to their product innovation counterparts in industries such as manufacturing (Tether, 2005; Droege et al., 2009).

While ACAP has only been investigated here with regard to service innovation contexts, a comparison to existing research from the manufacturing domain may shed some further light on this debate. To start with, the negative influence of the lack of innovation protection mechanisms, such as patents, on absorption activities for those service innovations which are relatively easy to imitate constitutes a difference to absorption activities in product innovation. In manufacturing, firms seem to be less likely to refrain from external learning at the end of the development process in order to

protect their innovation from premature imitation. Reasons for this are grounded particularly in the more effective presence of intellectual property rights in the manufacturing domain, allowing product innovators to effectively prevent their innovation from being imitated. “Formal appropriability by and large depends on intellectual property (IP) laws, and certain types of open innovation are only possible through such IP protection.” (West, 2006: 109) Hence, one sector-specific difference constitutes the reduced opportunities for service firms to learn from the market at late phases of the innovation process, as due to the lack of “hard” protection mechanisms, secrecy seemed to constitute a highly important protection mechanism, especially for service innovations which are easy to imitate.

Furthermore, the interconnectedness of technical and market-oriented absorption has, to date, not been reported in manufacturing-oriented ACAP research (cf. Lichtenthaler, 2009). Rather than a potential non-significance for ACAP in manufacturing, this lack of consideration may be due to the fact that it could have been less apparent than in service innovation. In new service development, many researchers have identified that the interrelatedness of multiple parts of the organization is more present than would be the case for product development in manufacturing (Hipp & Grupp, 2005). Reasons for this may be grounded in the difficult distinction between process and product innovation (Droege et al., 2009; Gallouj & Weinstein, 1997). In services, it is argued that innovations comprise both changes to the process and to the product and that these two elements were tightly interrelated and occurred together in service innovation (Uchupalanan, 2000). Due to this aspect, namely that service innovation spans multiple parts of the organization, the interrelatedness of market and technical absorption processes is highly apparent. However, this higher visibility in service innovation may not mean that market and technical absorption do not need to be interrelated in manufacturing. Further research is necessary in order to illuminate such an interconnection in other domains than service innovation.

Innovation cycles constitute a final distinction between product innovation research and the innovation patterns identified here. In general, service innovation needs less time than product innovation, no matter whether incremental or radical innovation is concerned (Griffin, 1997). Reasons for this are grounded in the less complex prototyping phase and the reduced need to prepare production facilities for the new offering. In consequence, iteration between radical and incremental innovation took place within 1.5 to 2 years in the observed cases. In existing product innovation literature, longer cycles have been reported (Adler et al., 1999), which also adds a further distinction between product and service innovation research.

Yet, while such differences were identified, in general the absorption process and its enablers and inhibitors also showed a considerable resemblance. The absorption process consisted of similar phases to those identified in recent conceptual studies on the absorption process in manufacturing. Additionally, many enablers were identified which had also been identified during absorption for product innovation (cf. Lane et al., 2006).

Hence, both similarities and differences between service and product innovation have been identified in this research. As a result of this, the synthesis stream (DeVries, 2006; Froehle & Roth, 2007; Hollenstein, 2003) of service innovation literature is supported by these insights. Researchers adopting a synthesis perspective argue that although differences may exist, product and service innovation research should be built on a unified conceptual foundation, as similarities between these two domains were higher than their differences (Droege et al., 2009). In future research, the differences identified here are to be studied in depth for absorption activities related to product innovation in order to illuminate whether they may also be partially applicable to the manufacturing domains. For example, the identified interconnectedness of market and technical absorption may, as already indicated, be present in product innovation as well, but may have not been identified.

8.3.3 Open Innovation

While the main focus of this study has been to investigate activities that relate to learning from external sources, and hence adopted an outside-in perspective, literature on open innovation has recently started to discuss firms' potential benefits of externalising internal information. Chesbrough (2006), in particular, argued that firms should not forego the opportunities of accessing information and knowledge residing outside the firm. In addition, he argues that organizations may benefit from externalising their internally developed innovations via an inside-out, or "out-licensing" approach. Hence, two major information flows form the foundation for an "open innovation" approach: an outside-in process in which external knowledge is internalised, and an inside-out process in which internally developed innovations are licensed out to third parties.

In the work of Chesbrough (2006), and also in other publications (Chesbrough et al., 2006), open innovation can be pursued by applying one or both of these two "opening-up" strategies. In the data, different strategies for opening up the innovation process were likewise observed. The outside-in process of open innovation was clearly visible in all three organizations, whether they were

successful or not. As a result, internal innovation benefitted from the external knowledge of customers, as well as from the expertise of external specialist organizations. However, an “inside-out” approach to innovation was only observed at BBVA where both the radical and the incremental innovation were developed in-house, even if they were afterwards handed over, to different degrees, to external partners.

In more detail, the *tucentas* project was developed in-house with the help of Strands.com, a technology expert company. After purchasing a stake in this organization, this company supported BBVA’s internal development team in programming the novel web service. After the online platform was complete, BBVA gave Strands.com permission to exploit the new service in the US-American market, where BBVA was not represented. This permission was given without any financial costs for Strands.com. Instead, BBVA’s goal was to benefit in the long term from the insights and further improvements made to the *tucentas* service concept by Strands.com’s experiences in offering this service in the market place. Where the *eConta Premium* incremental project was concerned, in this case internal development was performed in order to apply it outside BBVA’s boundaries. In particular, BBVA aimed at using this development to provide additional business opportunities for “*eConta*”, which was wholly-owned by BBVA, yet was operating autonomously. In this case, however, the development of the service was performed in-house, and the final service was then handed over to the managers of *eConta*.

Hence overall, with the here identified differentiated patterns of how firms approach “open innovation” strategies, I contribute to current knowledge about open innovation practices. At present, literature frequently refers to optimal open innovation strategies which involve both the internalization of external knowledge and the externalization of internal knowledge (e.g. Chesbrough, 2006). Yet, as this research has shown, different degrees of maturity of the scope of an open innovation strategy existed. While some organizations had implemented only the first dimension of open innovation, i.e. the internalization of external knowledge, other organizations embodied already both dimensions, including the externalization of internally developed innovation to third party organizations. Hence, future research can take these observations into account when studying the open innovation framework, as these observations call for a more finegrained assessment of a firms open innovation management. The following exhibit visualizes the different degrees of open innovation.

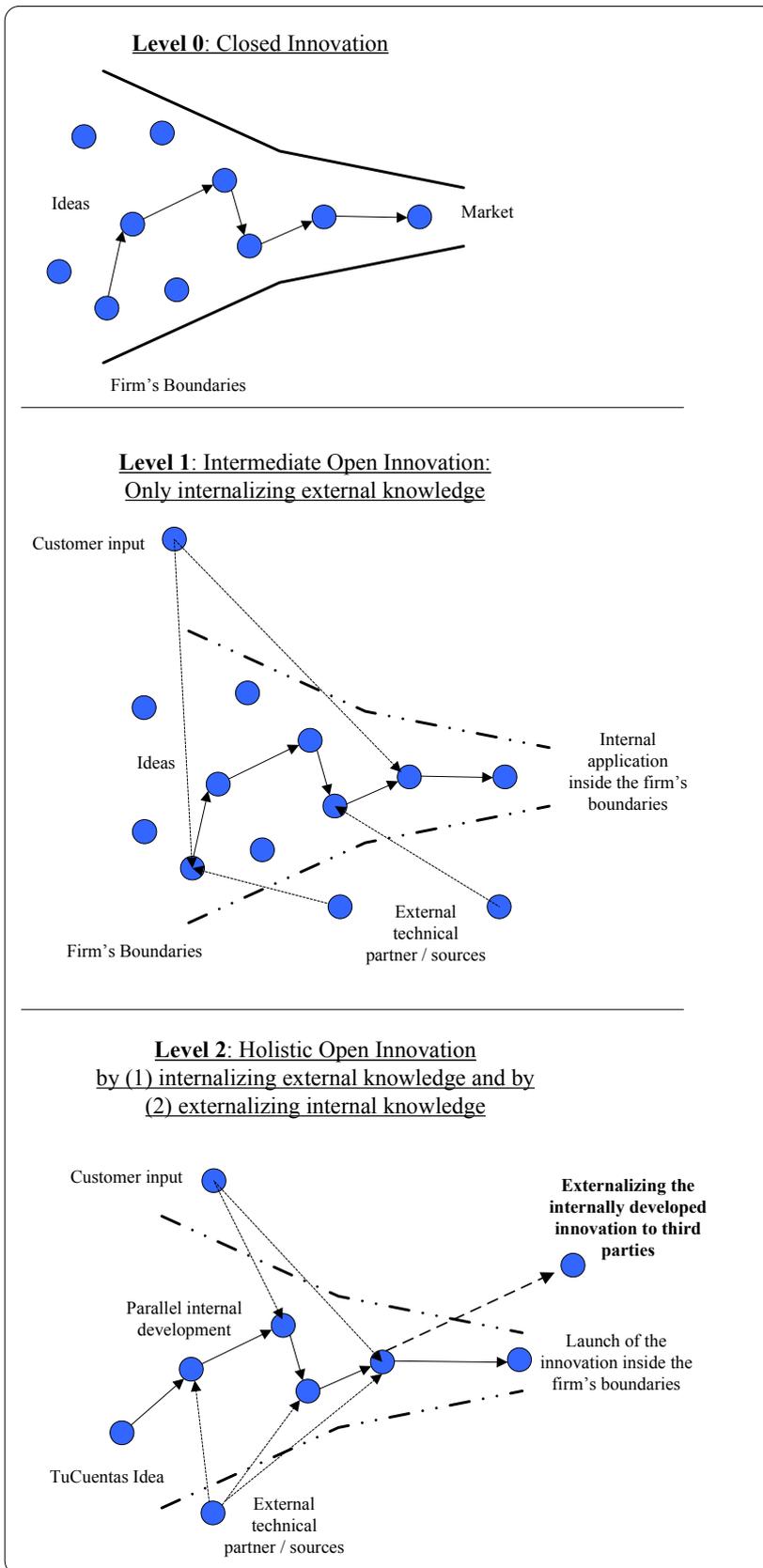


Exhibit 87: Levels of Maturity of Open Innovation

Further, due to the fact that the concept of open innovation was created on the basis of innovations developed in high-tech sectors (cf. Chesbrough, 2006), where strong intellectual property mechanisms protect innovators in their aim to externalise their internally developed innovation, the open innovation patterns identified here provide additional rich insights to open innovation literature. As shown particularly in the case of BBVA, in service industries, in which no patent-based licence agreements are available, internally developed innovations are also externalised to third parties. Yet, due to the limited trade opportunities for intellectual property in service contexts, the strategies for externalizing internal knowledge frequently mentioned in literature (cf. Chesbrough et al., 2006) were not observed. In literature, strategies such as participatory licensing, royalty fees generating patent pools, or the royalty-free “give-away” of licences in order to create industry standards (Simcoe, 2006) were not applicable to innovation in the observed service organizations. Instead, one-by-one relationships were created which were buttressed by considerable equity stake purchases on the part of the “information donator” in order to ensure that the externalised information was not handed to a potential future competitor.

Consequently, in the observed service innovation projects, the outside-in process constituted a firmly institutionalised procedure of which all organizations took advantage. On the other hand, the inside-out process of open innovation was only practised in one organization, and there only following the acquisition of equity stakes in those companies to which the internally developed innovations were transferred. As the open innovation conceptualisations are, to a large degree, based upon the “tradability” of intellectual property (cf. Chesbrough, 2006), the strategies for externalizing internal ideas proposed in this stream of literature apply only to a limited extent. The lack of intellectual property rights in services in the cases studied here allowed only such externalisations which were highly protected by means of direct investment in the recipient companies. Other, more open and flexible, approaches reported by open innovation researchers did not seem to be applicable in this specific context. Hence, findings suggest that research on open innovation should start incorporating the idiosyncratic characteristics of the service industries, as existing theory is overly focused on the opportunities available to organizations in the industries that are protected by effective intellectual property rights.

Moreover, insights from the “complete” open innovation approaches observed at BBVA allow for initial propositions concerning the influence of the degree of newness and project-based decisions on pursuing open innovation. As far as BBVA is concerned, data suggests that a holistic open

innovation approach, including both inside-out and outside-in information flows was present in both incremental and radical innovation projects. While Colarelli O'Connor (2006) argued that open innovation may be especially important to radical innovation in the context of large organizations (due to the incrementalism of internal development inside large organizations), BBVA also conducted open innovation in incremental innovation. Thus, while the usefulness of open innovation for radical innovation was also evident in the cases analysed here, the choice to open up the development process for incremental innovation as well contributes to the general applicability of open innovation approaches during service development. At the same time, however, complete open innovation was only observed to have taken place in one organization. Only the outside-in dimension of open innovation was present in the other organizations. This finding indicates that a firm may or may not choose to completely open up its innovation management, and no project by project decision was observed in the observed cases. This finding supports the general perception in literature that open innovation constitutes an organizational innovation management approach (Chesbrough, 2006) which is present in the overarching innovation strategy of a firm

9 Practical Implications

Besides the contribution of this work to research, practical implications are also suggested to practitioners. In general, insights from this study indicate that if organizations want to benefit from externally available information, this cannot be achieved solely by acquiring this information. On the contrary, organizations need to invest in their own abilities inside the organization in order to become capable of understanding and transforming the acquired information in the course of incremental or radical innovation projects. Investments in the internal knowledge base and in the different activities of the absorption process have to be made for this purpose. Hence, while information is being sourced from outside the organization, this does not mean that no idiosyncratic investments are required for this opening up of the internal organization.

As regards the actual absorption process of external information, several aspects of such activities also have to be considered. In particular during radical projects, both market and technical information needs to be sourced on an ongoing basis. While management may consider this as a threat to a quick “lock-in” of the desired service concept, iterations of both market and technical absorption are vital to the success of the radical projects since novel insights may influence the characteristics of the envisaged service. Hence, internal staff needs to have the necessary time and resources to identify and transform novel insights even when the development of the service concept and underlying infrastructure has already started. Management may react to this recommendation by developing alternative paths for certain elements of the new service. For example, BankPro developed alternative marketing plans in parallel, because reliable information about the possible clients of the service did not become available until late in the project. Due to this, more flexible responses to “late news” became possible. One caveat of such a strategy is certainly the fact that such strategies for remaining open to “new, late insights” demand considerable resource investments.

This ongoing focus on ACAP is also reflected in the finding that the absorption process needs to parallel the general innovation process. As observations of successful and struggling projects revealed, allowing the ACAP process to lag behind the general innovation activities may cause increased amounts of errors and extra work, due to corrections of such errors. Hence managers need to put utmost care in warranting that the needed information is acquired, transformed and applied at the time when it is needed in the respective innovation phase.

While such parallelism of the absorption process and the general innovation process is also needed in incremental new service development, management does not need to put similar emphasis on a dynamic design of the absorption process, as was observed during the radical project. Indeed, absorption of technical information may take place only at the beginning of the project, as the used technology may be present already since a longer period of time and hence does not change and evolve with the same speed as novel technologies may. During incremental innovation it is nevertheless crucial, that the absorption process is being performed according the identified stages, notwithstanding the fact that the absorption process for incremental innovation showed a less sophisticated pattern, as in the radical innovation projects. Management should also take advantage of already existing inhouse expertise on given market / technology trends, even more than for radical innovation. As this research revealed, for incremental innovations, the innovating firms already had considerable internal expertise at hand, due to the proximity of the incremental innovation to the firm’s core business. The following exhibit summarizes important “to do’s” which managers should keep in mind regarding the absorption of external information for service innovation.

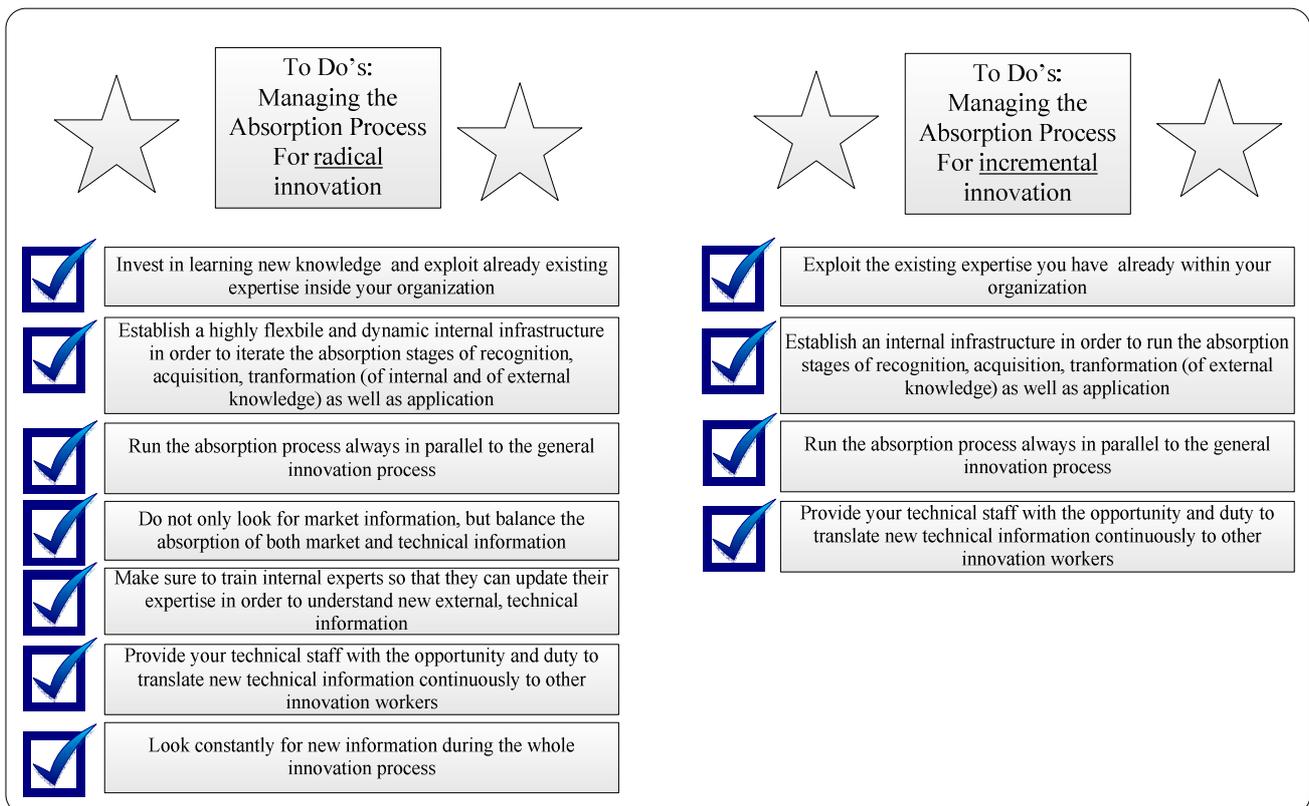


Exhibit 88: Managing the Absorption Process: To do's

Besides the fact that managers have to proactively manage the process activities for absorbing external information, they also have to be aware of the management of a series of facilitating and inhibiting factors, inside and outside the firm:

Managers need to consider that a capacity to absorb external information depends on the domain from which external information stems. In this study, especially the technical domain incorporating regulatory and technological information, and the market domain incorporating customer and competitor information, have been identified as the two most frequently observed domains. Yet, as revealed in this research, organizations were more familiar with acquiring market information than with absorbing technical information. In this field, management needs to put specific emphasis on raising internal awareness of potential difficulties in understanding and applying externally acquired information. Managers should prepare their staff for such absorption activities by means of specific training mechanisms, in particular in technical domains during radical innovation. These training mechanisms should, however, encompass several aspects:

For absorption during radical innovation, employees may need to be trained in new knowledge domains that are unfamiliar to them. As the necessary training would be project-specific, managers should identify the novel technical domains that will be needed for their innovation project as early as possible. Depending on whether only a slightly altered or a completely new type of service is being developed, more distant expertise will be necessary. In addition, during radical innovation projects it has been revealed that training internal experts who were already knowledgeable in related domains was highly important in order to make these experts capable of subsequently transferring this new knowledge to the other project members. Accordingly, such employees who already have expertise in related areas should be given the opportunity to learn about these new domains.

In addition, for radical innovation, training may be necessary to facilitate acceptance and, in turn, reduce potential reluctance or resistance towards novel external information. Research has shown that employees often appreciate external information influx, but at times may also over-appreciate internally developed information, resulting in what has been coined the “Not-Invented-Here” syndrome (Menon and Pfeffer, 2003). Managers should be especially cautious regarding planned radical projects, and whether the envisaged project members and the supporting departments are aware of the degree of newness of the upcoming project. As prior research has already shown, organization members will be more willing to accept change if they know about the importance of

the project to the whole organization (Reger et al., 1994). Hence, managers have to make sure that all organization members involved are aware of the novelty of the upcoming project and the resulting change in certain domains of their work. During incremental innovation such need for an open mindset was not observed to be necessary. Reasons for this lay in the proximity of the needed external information to the expertise areas of the internal staff.

Powerful external actors can also help to create awareness of the need to introduce a service which is radically different from the existing service portfolio. As indicated here, external associations can make claims about the need for a whole industry to respond to an external change which could affect all firms in the respective industry. These external evaluations can raise internal acceptance to adapt to future changes. During incremental innovation, in addition managers should take advantage of the ideas lead-customers could contribute. With their help, the absorption processes can become more focused and hence may be managed more efficiently.

Further, development staff should update each other on a frequent basis, even if they are responsible for very different elements of the service development. Not only did the intensity of knowledge sharing and the “cross-boundary expertise” of project members support the understanding and application of newly gathered external insights; the facilitating role of intertwined technical and market absorption was likewise crucial to optimal external learning. Through feedback from the marketers to the technicians, and vice versa, interesting insights can emerge which may result in searching for and finding highly relevant information and knowledge which has not been identified beforehand. Hence, based on the findings regarding the process and the facilitators of external learning, managers need to ensure that information is frequently shared among project members.

Implications also apply to the management of these service innovations as regards which essential parts could be prematurely imitated by competitors. This held true for both, incremental and radical innovation projects. As the findings revealed, the lower involvement of customers in later phases of the service development projects was observed because vital elements could easily have been copied by rival firms. The identified rationales were that, by involving customers prior to market introduction, competitors would learn about the innovation sooner, reducing the benefits that the innovator could subsequently derive from the new development. While such threats cannot be eliminated, managers could take into consideration that pre-market tests can be conducted in confidential ways, reducing the “leaking” of information to competitors. The term “Lead Users” introduced by von Hippel (1994) in business-to-business contexts can be applied here, with selected

“best practice” customers serving as a rich source of feedback in later stages of development. As these lead users may be only limited in number, it may be possible to keep the testing of a novel service confidential. Whenever new services are developed that aim at end customers, one of the strategies to avoid this threat, at least partially, could be to limit testing to “family and friends”, or to make the test version of the new service only available to a limited number of selected users.

In addition, in particular where technical information absorption is concerned, managers should take into consideration the type of relationship maintained to external technology partners or knowledge donors. In the observed cases of sourcing technical information, connections to these technology expert firms were based on either long term relationships or by having acquired a minority or majority stake in the company. Hence, in all technical absorption activities, no mere contracting of an identified expert organization was observed. This indicates that managers should consider these findings and look for long term relationships with promising technology expert organizations. This can facilitate overall trust and may lead to information being transferred more effectively, as both parties have developed experience in working together due to the long term collaboration.

This long term focus of potential relationships with technology partners may also help manage the absorption of technical information in relation to arising difficulties if the needed knowledge can not be easily shared. This may be the case if specific expertise and know-how is necessary which cannot be transferred by means of codified documents or databases. In such cases, absorption will be even more challenging, demanding close collaboration and exchange between the external expert company and the absorbing organization. The required intensity of knowledge transfer due to the implicit aspects of the information needed may be facilitated if long term relationships exist between the knowledge exchange partners. These long term relationships need to be managed with care also during incremental innovation, as also here it was observed that the bulk of external information was sourced from other firms, rather than from freely available sources. The following exhibit summarizes important “to do’s” which manager should bear regarding the facilitating and inhibiting factors for absorbing external information during incremental or radical service innovation.

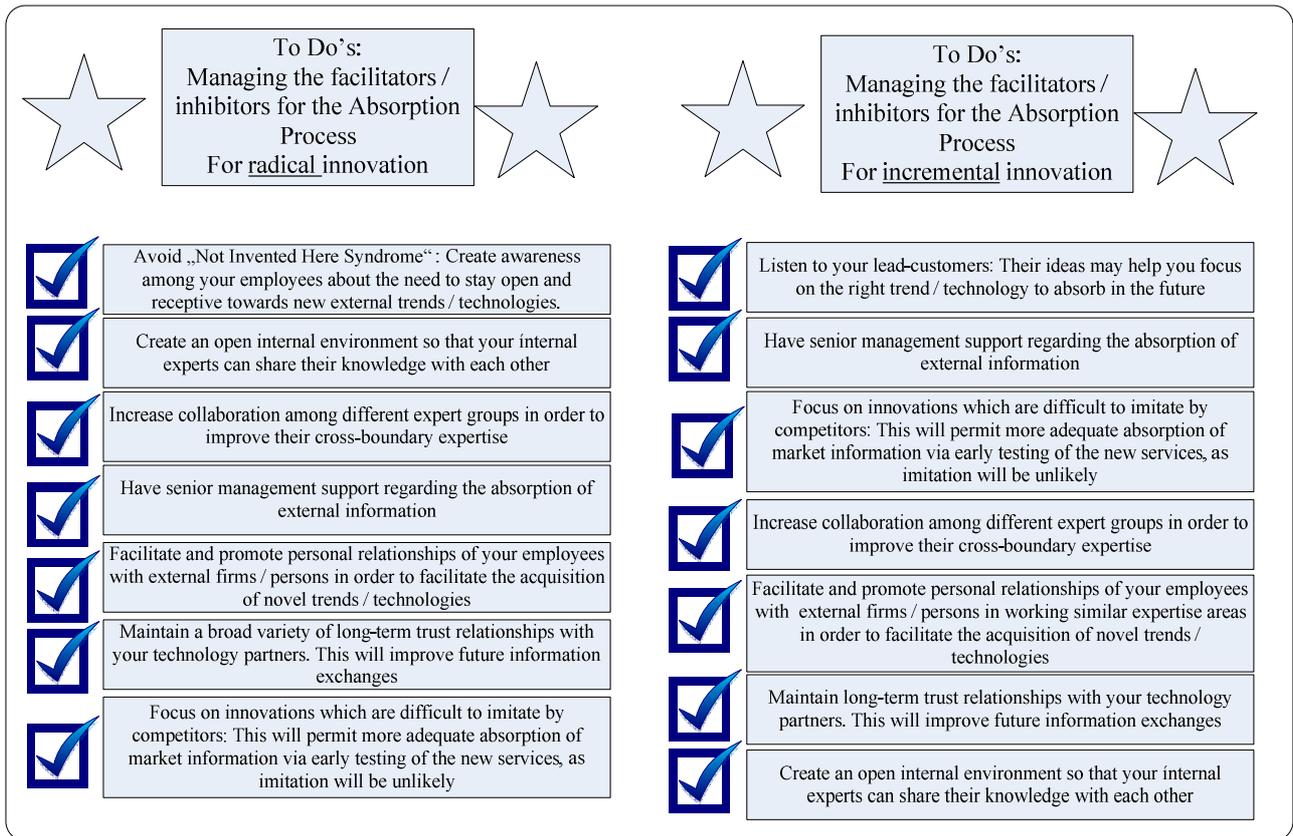


Exhibit 89: Managing the Facilitators / Inhibitors for Successful Absorption: To do's

If practitioners consider the practical implications of the research discussed here, absorption of external information may be improved which can subsequently have a positive influence on the success of incremental and, in particular, radical service innovation projects.

10 Future Research & Concluding Remarks

The research presented here has provided in-depth insights into how organizations absorb external information whilst innovating in services, and several identified aspects merit future research.

The findings provided here are based on qualitative research, limiting its generalisability to organizations other than those investigated (Yin, 2003), although several findings have been identified in all organizations and projects observed in this study. Future research could embark upon testing the presented findings with the aid of quantitative methodologies. In particular, these studies should involve not only service organizations, but should include a variegated assortment of organizations from multiple sectors. By introducing more variety, the here presented theoretical contributions could be tested concerning their applicability both outside financial services as well as outside the service sector.

In addition, future studies could compare whether the absorption process and its facilitators and inhibitors differ across cultures. Whilst in this study no explicit comparison of national cultures has been conducted, the similarities in absorption identified via pattern matching across the Spanish and German retail banks studied here indicates that the differences may only be limited, although further studies are needed.

Furthermore, future research opportunities emerge concerning the findings of the absorption process. First, more studies should investigate the identified differences in the absorption phases for technical information during incremental and radical innovation. As revealed, no internal transformation was present in incremental innovation, contrary to the absorption process for radical innovation. In addition, future studies need to look into the differences in the dynamic pursuit of the processes, particularly during radical innovation. Future research could quantitatively investigate whether a parallel or a consecutive pursuit of ACAP process stages contributes most towards learning and subsequent radical innovation success. Additionally, it is important to learn more about the double focus (internal and external transformation) within the transformation stage of ACAP.

The here studied absorption of both technical and market information also merits further investigation. Especially the lack of internal transformation during market information absorption as well as the beneficial role of constant interaction between market and technical absorption call for further attention, as current studies have been overly focussed on purely technical information

absorption. Hence, by including the market information dimension of a firm's absorptive capacity in future investigations, this may add further to a more holistic understanding of the firm's ability to learn from external sources.

Additionally, future studies are required to advance our understanding of the enablers for absorptive capacity. Particularly Todorova and Durisin (2007), and more recently Easterby-Smith et al., (2008), have started to illuminate the role of power during absorption processes. Further evidence for its importance has been presented in the form of the support for the important role of power relations during absorption identified in this study. Notwithstanding these insights, we still need to know more about how the concept of power influences the adaptation of the internal knowledge base, the translation of the external information, as well as the parallel pursuit of the absorption phases in organizations.

In addition, the relevance of other emerged factors to a wider array of organizations necessitates further investigation. For example, the identified role of an open mindset of the innovation project members has not yet been further investigated empirically in relation with a firm's ability to absorb external market and technical information. Yet, the successful radical and, in particular, the struggling case revealed that project members need to be open to new information influx and aware of the underlying newness of the innovation project. Without such a mindset, the absorption of external information was hampered. However, as this relationship emerged in the different cases in this research and has, to the researchers' knowledge, not been empirically investigated in relation to ACAP, further insights are necessary in order to corroborate this emerged relationship.

Moreover, the emerging factors on open innovation and ambidexterity call for more attention in future research. To start with the findings on ambidexterity, as discussed earlier, one case study firm developed both radical and incremental innovations by timely iterating between incremental and radical innovation projects. While similar findings exist in literature (Adler et al., 1999), the identified time window for one iteration seems worth investigating in more detail. As already described elsewhere in this paper, existing research on ambidexterity has defined simultaneous ambidexterity, i.e. the parallel development of both incremental and radical innovation by granting a three-year period to firms in which they could develop these two innovation types (e.g. He & Wong, 2004). However, this does not mean that firms could not still timely iterate between incremental and radical innovation within this three-year period. As the insights provided in this thesis show, at least the here studied retail bank was able to iterate between incremental and radical

within a two-year period. Hence, previous definitions of “simultaneous” ambidexterity may be flawed, necessitating more research into the question of how fast firms can iterate between radical and incremental innovation. Future studies could therefore reveal whether the frequently applied “three-year” time window for assessing simultaneous ambidexterity is appropriate, or whether it should be shortened. In fact, as service innovations are being developed in a shorter time than product innovations (Griffin, 1997), the study of ambidextrous innovators could benefit from a more fine-grained analysis of the potential differences between product and service innovations.

Further, research into topics related to the widely discussed “open innovation” approach (Chesbrough, 2006) may help to advance our understanding of innovation. As identified by Chesbrough (2006), firms not only absorb external information, but they can also externalise internally held information via licensing, spin-outs or other kinds of inter-firm collaborations. While in this research such externalisation of internal information has only been identified in one case study organization, no sufficient evidence could be presented which would have allowed for in-depth analyses of the second process of open innovation (the externalisation of internally held information). Future studies could shed more light on this process. Reasons for this need are grounded in the fact that open innovation literature, like ACAP literature, has itself been conducted with a patent-oriented R&D context in mind. This becomes evident in the high presence of R&D and patent-oriented elements in the open innovation concept (cf. Chesbrough et al., 2006).

In particular because open innovation has strong intellectual property rights as one of its conceptual foundations (cf. West, 2006), in order to allow for a free trade of knowledge and innovations across organizations, the weakness of the intellectual property rights in service industries may constitute a rich opportunity for future research. As the externalisation of internal ideas at BBVA was always performed by purchasing a significant equity stake in the receiving company, the “free market for ideas” proclaimed by open innovation may be a difficult goal to achieve in services, considering the lack of protection possibilities for the costly development of service concepts (Miles, 2006). Future research would therefore need to consider what other externalisation strategies could look like.

In conclusion, based on the identified need for more insight into the external learning process in services, the aim of this thesis was to enhance understanding of the factors and procedures needed to successfully absorb external knowledge during radical and incremental service innovations. In order to achieve this, not only a thorough presentation of the theoretical foundations of already existing research has been presented, but also rich insight in each observed innovation project has

been provided. By means of the subsequent analysis, cross-case patterns were identified which permitted relevant and novel contributions to literature on service innovation and absorptive capacity.

The primary contribution of this thesis constituted the identification of an ACAP process model which takes into consideration the idiosyncracies of radical and incremental service innovation. Further the identified ACAP process was analysed regarding its relation to the general innovation process, where the importance of a parallel, aligned flow of both the innovation and the absorption process was identified. Finally, it crystallized that this identified process model is influenced by a number of internal and external facilitators and inhibitors. In consequence, with this thesis a holistic account of successful external learning activities in radical and incremental service innovation was provided.

Due to the fact of having presented a study on absorptive capacity in services which was based upon qualitative data, this allowed for the identification of a much richer understanding of the phenomenon than was available before. The in-depth study of single innovation projects allowed for the identification of a much more dynamic model of absorbing external information than was reflected in current research. Also, the inclusion of both successful and struggling case examples strengthened overall findings. In addition it crystallized that absorbing external information during innovation projects can fail and may negatively affect the overall innovation outcome. Hence, absorbing external information during service innovation needs utmost managerial attention.

Thereby, the research also allowed for novel insights as to how theory which originally stemmed from research in sectors such as biotechnology and manufacturing can be transferred to a service context. Among others, the identified differences regarding the role of intellectual property rights for absorbing external information and its impact on open innovation management in services may develop into promising future research opportunities. Reasons for this are grounded in the fact that mechanisms for the protection of innovations occupy center stage in the research strands on absorptive capacity and open innovation management. Yet, besides such differences in the management of innovation in manufacturing or service industries, the here identified absorption process showed several parallels to models on absorptive capacity from manufacturing. Further, the identified differences may also be present outside the service domain, if being included for scrutiny in future research. Hence, research on innovation may benefit from being studied in a synthesized

rather than – as to present – a separate fashion. Idiosyncracies identified in the service innovation domain may sparkle new insights in product innovation, and vice versa.

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12 ANNEX

12.1 Scientific Output of the PhD thesis:

12.1.1 Scientific Conferences:

Dröge, H. and Ramis-Pujol, J. 2009.: Innovation in services: A comparative study of external learning processes in incremental and radical service innovation. *18th Frontiers in Service Conference*, Honolulu, USA

Dröge, H., Ramis-Pujol, J. and Hildebrand, D. 2009. Absorptive capacity in service innovation. *25th EGOS Colloquium*, Barcelona, Spain.

Dröge, H. and Hildebrand, D. 2009. Exploring patterns of absorptive capacity in ambidextrous organizations. *Academy of Management Meeting*, Chicago, USA

Dröge, H. and Hildebrand, D. 2009. Exploring patterns of external learning in ambidextrous organizations. *9th EURAM Conference*, Liverpool, UK.

Dröge, H. and Bou, E. 2008. The exploration and exploitation dilemma revisited: How does it apply to innovation in professional service firms? *24th EGOS Conference*, Amsterdam, Netherlands.

Dröge, H., Hildebrand, D. and Heras, M. 2008. Innovation in services. Present findings and future pathways. *SERVSIG International Research Conference*, University of Liverpool, Liverpool. UK. "Best Conference Paper"

Dröge, H. and Hildebrand, D. 2007. The use of conversational strategies for overcoming change barriers in the transition to process orientation. *Second Conference on Rhetoric and Narratives in Management Research 2007 (RNMR07)*, Barcelona, Spain.

Dröge, H. 2007. The exploration & exploitation dilemma revisited: How does it apply to Service Innovation? Presented at the *EUDOKMA Doctoral Seminar* at Copenhagen Business School, Copenhagen, Denmark.

Dröge, H. 2007. Innovation in service – Explored in the manufacturing industry. Presented at the *17th EIASM European Doctoral Summer School on Technology Management: Innovation Interfaces*, University of Twente, Enschede, The Netherlands.

12.1.2 Journal and Book Chapter Publications:

Dröge, H., Hildebrand, D. and Heras, M. 2009. Innovation in services. Present findings, and future pathways. *International Journal of Service Industry Management*, 20: 131-155. (ISI IF: 0.8).

Dröge, H. und Hildebrand, D. (2009): Book review: Services science: Fundamentals, challenges and future developments. *International Journal of Operations and Production Management*, 29: 317-318. (ISI IF: 1.00).

Hildebrand, D. and Dröge, H. 2008. Knowledge performance measurement. In.: W. Jaspers and G. Fischer (Eds.) *Wissensmanagement heute*. 35-63. München. Oldenbourg Verlag.

12.1.3 Awards:

- | | |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 05 / 2010 | Emerald Highly Commented Paper Award: Awarded for article: „Innovation in Services“ |
| 10 / 2009 | Best Conference Paper, Track Innovation. European Academy of Management Conference, Liverpool, England |
| 02 / 2009: | IBM PhD Award granted (2 nd time in row) by IBM Corporation (USA) for my studies of Service Innovation for the 2009-2010 period. |

- 06 / 2008: “The Christopher Lovelock Prize” granted by the International Journal of Service Industry Management (ISI IF: 0.8) for the Best Conference Paper at SERVSIG International Research Conference, University of Liverpool, UK. Name of the Paper: “Dröge, H., Hildebrand, D. and Heras, M.: Innovation in Services: Present Findings and Future Pathways”.
- 02 / 2008: IBM PhD Award granted by IBM Corporation (USA) for my studies of Service Innovation for the 2008-2009 period.

12.1.4 Scholarships & Fellowships:

- 09 / 2009 – 12 / 2009: BE Grant of the Catalan Government for Visiting Period at Cambridge University, Cambridge
- 02 / 2008 – 08 / 2010: IBM PhD Fellowship, awarded by IBM University Relations Programme, Phoenix, USA.
- 12 / 2007 – 12 / 2010: Full Scholarship of the European Union Social Fund and Catalan Government granted for the 2008-2010 PhD period.
- 08 / 2007: RADMA Grant awarded by “R&D Management Journal” for presenting a paper at the „17th European Doctoral Summer School on Technology Management (EIASM)“, University of Twente, The Netherlands
- 04 / 2007 – ongoing: Scholarship (access to databases) for my studies at the PhD level, granted by E-fellows.net (a consortium of McKinsey, Deutsche Telekom, and Bosch) (re-newed in April 2008)
- 06 / 2002 – 02 / 2005: Scholarship granted by A.F. Dornbracht GmbH & Co. KG, Iserlohn, including the university fees for 5 semesters.

12.2 Data Analysis:

12.2.1 Interviewpartner:

BankPro	Position	Number of Interviews
	Divisional Head Marketing / Sales	1
	Head of Product Management (former)	2
	Head of Product Management (current)	2
	Head of controlling	1
	Team leader product development	2
	Wohnriester Project Manager	2
	Wohnriester project member, marketing department	2
	Wohnriester project member, legal department	1
	Wohnriester project member, financial mathematics department	2
	Wohnriester project member, controlling department	1
	Online Business Project Manager	1
	Online Business project member, marketing department	1
	Online Business project member, legal department	1
	Online Business project member, financial mathematics	1

	department	
	Sales representative	1

BankXY	Position	Number of Interviews
	Divisional Head Marketing / Sales	1
	Head of Product Management	3
	Inno-Card Project Manager	3
	Inno-Card project member, marketing department	2
	Inno-Card project member, legal department	1
	Wohnriester project member, controlling department	1

BBVA	Position	Number of Interviews
	Divisional Head Centre of Innovation	3
	Centre for Innovation marketing expert	4
	Head of Digital Business Department	1
	Head of Customer Intelligence Department	1
	Head of Business Partner Department	1
	Team members innovation development “Digital Business” – development experts (also involved in Tucuentas / eConta Premium)	5

	Team leader Tucuentas	1
	Team leader eConta Premium	1
	Team member “Consumer Insight” Department	1

12.2.2 Exemplary Primary Document with coding scheme

Date: 11.09.2010

P 2: Interview_Hr Hohn_BSH.doc

Page: 1/36

001 Interview Bausparkasse Schwaebisch Hall Hr. Hohn

002

003 H.: I would like to ask you to explain to me what your position in the company is, what your department is doing, just a brief insight, so that I get an overview.

004

005 R.: So, I am at Schwaebisch Hall responsible for the Product Management. We have three business segments: "Home Purchase Savings", "Construction Loans", and further financial security. Home Purchase Savings (HPS) is the bread and butter business of this company. We generate out of this more than 90 percent of our revenues. Construction Loans these are quasi combined products, so called Deferment of Amortization Loans, and there exists a Ahead-Loan, and at the same time a HPS is being used to put money on. With this HPS then the Ahead Loan is being displaced and this more or less generates 25% of the HPS business. And the third business "Further Financial Security" that are complementary products which we buy in from outside from other network-partners, insurances, fonds, we also mediate bank-products and this is simply necessary for the sales process that our sales people have a sufficient number of products they can sell and possible pull-in business, whereas the company does not earn so much. This has other strategic aims.

Product Lines of BSH

Product Lines of BSH

006

007 In my department work ca. 30 employees, who are organized according to these three business segments, and again within these product management teams, they are divided into product developer, which are not so much involved in the daily operative business, and market-manager. Product Developer are overall 10, and the others are marketers. The marketers are responsible for the definition of Target groups, for the customer response, steer the other marketing departments. In marketing there exist overall 120 employees. And the market manager brief the other departments about what goes into advertisement, online marketing, communication to sales force and banks, client mailings, prospects. The product developer work according to a defined product development process. Thus it is precisely defined who may introduce a product idea, how to evaluate it, and under what circumstances is this product idea followed on. Everything is settled, there also exists a decision board in which always at least one of the executive board members participates. Often, however, all members of the executive board. Further, it is defined, what legal requirements after analysis by the financial institute have to be considered with regard to Basel II, or European

Department Characteristics

Product Manager Role

Role of Product Developer

Formalization

Institutionalization- Form

Strategic Relevance of Innovati

Formalization

Legal Constraints

guidelines, so that also for the accountants there is a certain kind of transparency on what kind of basis for decision this product was developed and a new product execution process implemented. These are the main tasks of our department.

008

009 H.: So you have different task areas in your department. Finally, it is a classic product management combined with product development.

010

011 R.: Yes.

012

013 H.: Ok, and when we now start at the very beginning. At the defined development process. What are typical sources for the ideas?

014

015 R.: Typical sources are business administrative, namely information that we have to get better somewhere, to earn more money, there are ideas from our sales distribution-partners, that is sales force or banks, or those are just good ideas also from the competitors. It is also possible that adequate things emerge out of the market research or politics. One example of ideas out of politics was, I think we once talked about this, education safings.

016

017 H.: I would like to go into detail concerning this later also. Sure, the ideas you get from these areas, but how exactly does this work? Is it that way that the controlling department contacts you and says, look we have this nuance in this service, which leads to these and those complications, or this would be better if we do it like that, how does it work in this first phase, so that geth sight of these new ideas or the knowledge which is submitted to you. Do you go to the people or come the people to you? And how does it work?

018

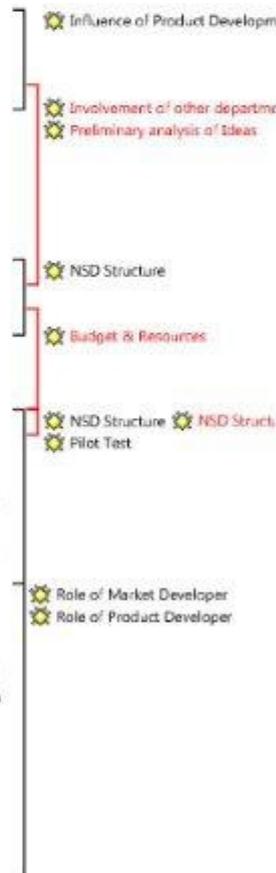
019 R: This is a multichanel process. We have due to the defined NPD process a decision board, this is called Product Development Committee, we abbreviate this "PQ". This is this board where at least one member of the executive board is always present. Here different discussions exist, and tasks. "Did you ever analyze if this would be done in that way?" is one possibility, or a competitor has a new tariff we look at it and say this is not bad, but does not exactly fit to us, let us see what we can do out of this. Or a sales man says "I have a good idea". Then we check this idea at first in my department. Then a proposition is made either discard or proceed with analysis. If this was not an official assignment of the executive board or out of an official committee like the PQ, then this works relatively easy, otherwise this

 Sources of New Ideas

decision has to be justified in the respective committee so either executive board or PQ. If it was an official assignment or we think it is a good idea...

020
021 H.: This means if you and your department want by yourself to follow on with something, ok...

022
023 R. Exactly, then we make, then we let the PQ authorize a preliminary-analysis. Because we basically, start the production apparatus, and we cannot do this autarkic, we need the controller, the loan-maths and similar, lawyers, and in order that these resources are not unnecessarily wasted, we defined in this product development process, it has to be made a clear decision even for a preliminary analysis in which other areas are involved. So if we are convinced that one idea makes sense, then we let in the product development committee approve a pre-examination for this idea. The preliminary analysis is on an electronic, standardised basis. We fill out this electronic document and we ask each affected department for their statement and amendments. Then it flows back to us, and we do an analysis, briefly summarize and we formulate out of this a recommendation, again for the product development committee, which we again make available to all affected departments. And this either means, follow on with the analysis, or discard. If to further analyse the idea, we again let authorize the needed analysis by the PQ, meaning bigger market research costing around 100.000€, further days of analysis, everything which costs money, what exceeds a certain boundary of what can be decided just by that. And then it goes accordingly. The NPD has five steps. If all steps are followed, then there happens a pilot in practice. However, this often is not possible, because then we make public out product innovation to our competitors. If we put a new HPS-tariff, then we never do a pilot, this simply does not work, because then all in the market know what we have in mind doing. So it has to be introduced with a drumbeat. This process mainly operates with the product developers, until that moment in which it is being decided, yes we bring this product to the market. Then the project leader role switches from the product developer to the marketers. Still it has to be developed something, the technical systems have to become implanted, this still does the product development, they generated the product, developed the product with regard to the details, and give hints how to programme this, they assign the creation of the functional Design and the execution of the programming, and they have to approve the final product at the end. But until this point in time, the



marketing took over the project leader role, when it is the focus how to advertise, how do we inform our sales force, banks, and so forth.

024 H.: If I could go into detail into this last point, the interplay
025 between the marketers and the product developers. How
does this work? Do they work together, or do they work in
parallel?

026 R.: They work in parallel, this means, as long as the product
027 developer have the project leader role, quite early starting
from phase two, "yes market entry is probable", there
already exists a sub-project, "marketing". And the respective
project leader calls all sub-project leaders to periodical
meetings, and there this course of action is being discussed,
so that in the phase where the product developer has the
project leadership, the marketer already knows about the
whole project activities, not in details, but he is always
informed through the meetings and the protocols, which he
is receiving to his disposition. And when the project
leadership switches he is fully in the same boat, does not
have to become newly informed, but he is involved from the
early beginning, and the product developer is a leader of a
subproject, takes part in the subproject leader meetings, and
thus he is accessible as knowledge database for the marketer.
In addition they sit in the same unit in product management
"HPS", or constructions financing, or further financial
security. They are colleagues under one unified
teamleadership (16:00).



028 H.: If I imagine now, that the developer possibly have
029 different contextual conditions...or as a question. Is it the
case that these have to coordinate different goals...is it
unproblematic to let these two areas flow together, or do
there exists tensions in conceptual or practical direction, that
these two quite different activities are lead within one
department.

030 R.: No, conflicts or something like that do not exist, but
031 indeed the modes of operations are different. The product
developer have to be kept off the daily business. This means
influences suchas "is good" "super" or "not at all" has to be
kept away from them. They have to be able to consequently
work on one topic. They, because we have a state-supported
product, are being influenced by the daily politics. Law
drafts, or similar play a relatively important role for us. As
soon as governmental aid is involved, they have to consider
everything, they also have to know the "Bausparkassen" law,



legal conditions, we have a lawyer involved. But there it can actually happen, that they are being influenced by the politics, which sometimes involved rapid changes. Especially when we still have the possibility of influencing, through lobbying we try to steer that a bit, the product developer thinks ahead (vordenken) how there could be proceeded. In so far it is a different work. The product developer maybe work a little bit in a more calm environment and the marketer of course are fully involved in the daily market business, in the whole up and down, informations which occur in the real business, have to respond to questions from our distribution partners and so forth. They have different activities, they also have to be creative on the spot, have to put into words or images what the product developer as such has not to do. But they are not arguing in person (-:-), but of course there is a certain kind of of tension. But this up to now did not interfere. Soemtimes the product developer are being asked by the marketers, don't you have an idea what we could do and hence are being used as think tanks.



032 H.: I understand. Thus they work together very good and at
 033 times they help each other, and sometimes it is of help that
 these two areas, although they have a different focus, are
 located together. Very interesting. If I now... you just
 mentioned that the law is very important... also for the idea
 generation? Like, let's see what room this law allows... or is
 this more a way of checking in that way as ok now we have
 this idea now we look if this could work, or is this
 formalized law-aparatus also an opportunity to discover new
 ideas.

034 R.: The law makes quite rigid specifications. We have this
 035 Bausparkassen law, with this the possibilities for House loan
 financial institutes are relatively limited. House loan
 financial institutes own one exception from the so called
 "Zwecksparverbot". All other financial institutes have to
 obey to the Zwecksparverbot. What we do is, "If you give
 me today one Euro, and I give you this interest rate, they you
 get from me a loan with a pre-specified interest rate. This
 only House loan financial institutes are allowed to do in
 Germany. In this way no other financial service provider is
 allowed to work. But through the fact that we life of an
 exception in the law, we of course a relative strongly limited
 regulated. We are allowed to do only certain things which
 are legitimized in this Bausparkassengesetz. Further we are
 not allowed to invest the money which we get from our
 customers in every possible way on the money market, there



exist clear laws in which ways we are allowed to invest our money. This is a tight frame, this means that the product which are offered by the House loan financial institutes seem to be exchangeable when looked at in the very first moment. Because all have to obey the same laws. The task of the product developer is then, yet to find a differentiation to our competitor, which however still fulfils our expectations concerning the revenue.

036 (21:50)

037 And this is here for us a very high priority. In principle we can do within this legal frame everything what we want to do - on behalf of our executive board, but we have at least to generate a return of equity of 15%. If we generate more, good, but it could well be, that if you want to earn too much, then there come others and say I do this for less, I do the same but cheaper. And such a product development always costs us a lot of money. It is always around an amounts of one-digit millions. Normally in the lower area of the one-digit million area, this is ok but then there comes in the expenses for training, technical expenses. For technical expenses two-three millions, then training expenses, we have around 40.000 sales people in the "genossenschaftlichen" banks, when all of these have to be trained, one day, Two days, or three days, depending on how expensive our product is, then this costs money. If 40.000 people and one day work-drop out then this accordingly costs a lot of money.

038

039 H. Of course.

040

041 R.: Therefore, with these product developments and market entries, one has to be very cautious, because always money could be burned. And on the other hand we have to see that we still find an opportunity how we can slightly modify our products also in that direction that this modification is marketable afterwards. If you look at our present advertisements what we do in the whole country now for already about two years we clearly put most emphasis on, did you see this somewhen by yourself? (No), 1,95 Interest rate. Wir waren die erste große Bausparkasse, die die Darlehenszinsen ziemlich weit abgesenkt hat.

042

043 H.: Wann war das?

044

045 R.: Vor 2,5 Jahren. Und seitdem werben wir...unser Fuchs rennt immer durch die Gegend und sagt: Jetzt Bausparen mit Darlehenszins von 1,95%. In verschiedenen Varianten. Aber das erzählt er immer. Und so versuchen wir dann, über Produktgestaltung, die wir bewusst so gemacht haben. Wir

Differentiation

Strategic Relevance of Innov

Freedom (Pattern, Jazz)

Budget & Resources

Risk of NSD

Risk of NSD

New Ideas Characteristics

Exemple Innovation: New Tariff

Exemple Innovation: New Tariff

haben Guthabenzins und Darlehenszins abgesenkt, und eine besondere Variante, wo der besonders tief ist, aber diese Tatsache dann fest mit Schwäbisch Hall zu verbinden. Deshalb rennt da immer unser Fuchs, und nur wir haben einen Fuchs. Und wir gehen über lange Zeit dann hinweg in der Werbung immer mit diesem Thema. Da gibt's verschiedene Varianten, aber wir haben jetzt eine Variante „modernisieren und Energie sparen“, also das heißt dann, Bausparen und Energie sparen ab 1,95% Darlehenszins, die Grundaussage, die wir aufgebaut haben, niedriger Darlehenszins mit Schwäbisch Hall, mit dem Fuchs können wir auch erweitern auf ein Spezialthema Energiesparen. Aber was gehört zur Produktentwicklung dazu, also am Anfang, schon in der Produktentwicklung muss man sich überlegen, wie könnte ich dieses Produkt dann vermarkten. Ich brauche positive, starke Argumente, die einem eine Alleinstellung ermöglichen und eine feste Verknüpfung zur Marke, Schwäbisch Hall dann bei entsprechender Penetration durch die Werbung ermöglichen.

 New Idea Characteristics

046

047 H.: Was denken Sie, wie lange dauert es, bis dann andere Anbieter oder ihre Wettbewerber in diesem Bereich sich dieser Aktion anzugleichen?

048

049 R.: Die haben natürlich, die müssen versuchen, wir sind Marktführer, uns anzugreifen. Müssen sie sich was neues einfallen lassen. Und die versuchen teilweise, über noch niedrigere Darlehenszinsen, das zu tun. Nur schaffen die es in der Regel nicht, das auch mit der Werbung zu verbinden. Also wenn das kleinere Bausparkassen sind, die haben nicht die Werbekraft, nicht das Geld, das Werbebudget um entsprechend dann auch in der Werbung aufzuschlagen. Das ist die eine Seite. Es macht kaum eine andere Bausparkasse so konsequent wie wir. Die Landesbausparkassen, aber die bekommen dies bundesweit nicht hin, weil die keinen einheitlichen Tarif haben, das sind 13 verschiedene Institute. Auch mit unterschiedlichen Tarifen. Die können das bundesweit gar nicht bewerben. Und andere Bausparkassen, Wüstenrot oder BHW, die das auch versuchen, die haben aber eine ganz andere werbliche Ausrichtung. Die haben mehr Image-Werbung und nicht diese zwei Teile. Wir haben Image plus Fuchs, also Produkt immer. Und da haben wir schon ne relativ gute Darstellung. Wüstenrot kann es momentan mit der aktuellen Werbelinie gar nicht machen, BHW versucht es, sind aber zu sprunghaft. Und wir sind da eben konsequent, wir haben von der Produktentwicklung überlegt, was können wir herausstellen wenn wir unseren neuen Tarif haben und sind da konsequent, klar hatten wir

 Competitive Situation BSH
 Market position of BankPro

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- Glück am Kapitalmarkt. Wenn die Zinsen hoch gehen, ja?, verdienen wir noch mehr, gehen sie runter, wir sind relativ tief eingestiegen, tuts uns auch nicht so arg weh.
- 050
051 H. Verstehe
- 052
053 R.: Insofern haben wir vor zweieinhalb Jahren fast den idealen Tarif für die jetztzeitige Situation entwickelt. Prima zu vermarkten, und sehr ertragsstark.
- 054
055 H.: Und kontinuierlich, so dass Kunden dies auch kontinuierlich wahrnehmen können, über eine langen Zeitraum hinweg. Verstehe. Wenn ich mir anschau, Sie haben das Bauspargesez, oder einen festen Rahmen, in dem Sie entwickeln können. Was würden Sie denn als eine Veränderung wahrnehmen, die schon signifikant ist, und was ist für Sie Veränderungen, die zu einer Effizienzsteigerung führen, wie Sie es eben ausgedrückt haben, oder die...machen Sie da eine Unterscheidung in dem Grad der Veränderung, ich will keine Schlagwörter nennen, aber in dem Grad der...ab wann würden Sie sagen, ja das ist jetzt was neues, oder das ist was womit wir etwas bestehendes verbessern. Haben Sie...Denken Sie in diesen Spähren, oder ist das für Sie nicht relevant.
- 056
057 R. Doch. Wir denken in diesen Spähren, das ist prüfungsrelevant für die Wirtschaftsprüfer nachher. Auch Risikomanagement. Also im Bausparen müsste es schon eine wesentliche Veränderung sein. (29:04) Da wäre zum Beispiel eine Produktabwandlung in Richtung Bildungssparen, dass wäre eindeutig ein neues Produkt. Da muss auch alles untersucht werden, und sauber belegt werden, was dort gemacht wird, welche Risiken eingegangen werden. Ansonsten, wenn wir nur eine Anpassung machen, also wir machen ja Marktbeobachtung, wenn ein Mitbewerber von uns, Wüstenrot, hat einen neuen Tarif gebracht, mit sechs Varianten, wie unser Tarif, in fünf sind wir besser, und die haben eine Schaufenstertarif, wo die besser sind, und da sagen die, in dieser Variante, bestimmte Dinge sind gar nicht so blöd gemacht, Achtung vor unserem Wettbewerb, und dann sagen wir, wenn wir jetzt heute einen neuen Tarif einführen würden, würden wir eventuell Elemente daraus nehmen. Aber das ist immer noch klassischen Bausparen. Das sind einfach Varianten, da muss man prüfen was verdient man noch dran, wie werbewirksam ist diese Variante, können wir es entsprechend kommunizieren, oder nicht.
- 058
- Example Innovation: New Tariff
 - Institutionalization~
 - Characteristics NEW SERVICE
 - Example Innovation: Bildungsp
 - Characteristics Incremental New!
 - Example Incremental NEw Service

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059 H.: Machen das denn die Entwickler beides, sowohl diese Veränderungen, als auch Dinge, die mehr Aufwand erfordern? Oder werden bei diesen kleinen Veränderungen, die Entwickler nicht herangezogen, sondern dass machen dann direkt die Markmanager.

060

061 R.: Nein. Also das sind immer die Entwickler, die am Produkt arbeiten. Und die Entwickler sind ja nicht allein. Das ist ja immer ne Projektgruppe. Also das ist immer ein Netzwerk mit Controllern, mit Finanzmathematikern, Juristen.

- ☀ Collaboration
- ☀ Involvement of Product Develop
- ☀ Needed Expertise
- ☀ PEople involved in NSD

062

063 H.: Auch ein Projekt...

064

065 R.: Immer. Bei jeder Idee, wird immer die Projektgruppe zusammengetrommelt. Und das sind auch zum größten Teil relativ erfahren Leute, also die schon wissen, wo sind die gesetzlichen Grenzen. Das weiß auch der Mathematiker oder die Mathematikerin, in dem Fall ist das eine Frau die dabei ist. Sie kennt sich juristisch auch schon soweit aus dass sie schon die Restriktionen die uns vorgegeben sind entsprechend einhält. Und wir haben, wenn wir einen neuen Tarif haben, haben wir eine Prüfungsinstanz. Das ist das, ähm wie hieß es früher, Aufsichtsamt für das Finanzwesen, heißt jetzt Bundesagentur für Finanzwesen oder so ähnlich, die BaFin, abgekürzt, und bei der müssen wir unsere Tarife zur Genehmigung einreichen.

- ☀ Institutionalization~
- ☀ Cross-Knowledge needed also
- ☀ Experience
- ☀ Formalization

066

067 H.: Auch jede Veränderung. Also alles was Sie...

068

069 R.: Alles was wir an den Tarifmodellen verändern. Wir müssen gewährleisten, und da guckt diese BaFin drauf, also die ist für das gesamte Finanzwesen in Deutschland zuständig, und guckt ob wir diesen Gleichbehandlungsgrundsatz, weil wir ein sogenanntes Kollektiv haben, kein Bausparer darf besser oder schlechter gestellt werden als der andere, alle müssen im Prinzip gleichbehandelt werden. Vielleicht haben Sie mal das Stichwort Bewertungszahl gehört, und jede Variante von uns hat eine andere Bewertungszahl, aber jeder muss gleichbehandelt werden, vom Grundsatz her. Das niemand von dieser Gemeinschaft, von diesem Kollektiv, mehr herausnimmt, herausnehmen kann, als jemand anderes, der genauso viel einbezahlt hat. Deshalb auch Zuteilungen und alles mögliche...das ist noch ein zusätzliches Prüfsystem, dass wir haben, als Bausparkassen. Wir müssen zwar alles selber ausrechnen, rechnen tun dies das nicht aus, aber die prüfen dann trotzdem, haben die richtig gerechnet, haben

- ☀ Legal Constraints

die, stimmt das alles was die sagen. Insofern gibt es noch weitere Restriktionen, deshalb, auch kleinste Veränderungen am Produkt müssen immer rechtlich korrekt sein, finanzmathematisch korrekt sein, Prüfungsfähig sein, und deshalb müssen das Leute machen, die sich wirklich darauf spezialisieren.

070 33:05

071

072

073 Und das sind die Produktentwickler bei uns. Man hat mehr Freiheitsgrade, wenn es um die anderen Geschäftsfelder geht. Bei Baufinanzierung, aber dort ist es auch so, wir haben jetzt einige neue Finanzierungsprodukte eingeführt, weil wir in unserem Konzern, DZ-Bank Konzern, beauftragt wurden, dass wir jetzt künftig für die private Baufinanzierung allein zuständig sind in diesem Konzern. Früher gab es dann noch ne DG-Hyp - Hypothekenbank, die hat auch einen Teil von diesem Baufinanzierungsprogramm gemacht. Das wurde denen quasi weggenommen von unserer Konzernmutter, DZ-Bank, und wurde Schwäebisch Hall zugeschlagen. Wir hatten das bisher nicht im Produktangebot, zumindest viele Teile nicht, um die gegenseitige Kanibalisierung möglichst gering zu halten. Und jetzt müssen wir ganz schnell neue Produkte entwickeln. Und was da wirklich neue Teile waren, die sind dann auch so deklariert, im gesamten Prozess dann im Haus, auch Prüfungsrelevant wieder aufbereitet, dass es Produktneuentwicklungen sind.

074

075 H.: Klar, das muss dann auch vorgelegt werden und überprüft werden.

076

077 R.: Das müssen wir nicht, weil das nur den Bausparvertrag angeht und das ist eine Sonderregelung, welche Geschäfte dürfen Bausparkassen noch machen. Wir dürfen auch Zwischen- und Vorausfinanzierungen im bestimmten Rahmen auch sonstige Hypothekenfinanzierungen anbieten, Annuitätendarlehen durchführen.

078

079 H.: Und das ist ausserhalb des Bau...

080

081 R.: Das berührt das Bausparen nur am Rande. Da gibt's Kontingente was man machen darf und was nicht. Aber ist kein Eingriff in die Bauspartarife.

082

083 H.: Wir haben jetzt bisher über Produktneuentwicklungen gesprochen. Wenn ich mir jetzt anschau wie ein Vertriebler arbeitet, oder wie Dienstleistungen an den Kunden

- ☼ Experience
- ☼ Role of Product Developer

- ☼ Characteristics of Non-Core Bu
- ☼ Flexibility
- ☼ Differences between Product D
- ☼ New Business through Merger

- ☼ New Business through Merger
- ☼ Characteristics NEW SERVICE
- ☼ Example Innovation: DG Hyp II
- ☼ Formalization

- ☼ Differences between Product Div
- ☼ Flexibility

herangetragen werden, gibt es von Ihrer Seite aus, oder Schwabisch Hall im Allgemeinen auch, das Bestreben, diese Prozesse, Abläufe der Dienstleistungserbringung anzufassen.

084

085 R.: Ja. Also wir haben vor vielen Jahren schon definiert, wir möchten dass unser Beratungsprozess und unser Produktabschluss bzw. Beantragungsprozess elektronisch läuft. Deshalb haben unsere Außendienstmitarbeiter alle Notebooks und dort ein System drauf das nennt sich BSH-Top, mit dem Sie beraten können und Produkte abschließen können, das kann alles am PC ausgefüllt werden, dann muss leider rein rechtlich noch ein Ausdruck gemacht werden. Der Kunde muss noch auf dem Papier unterschreiben. Die Beantragung des Geschäfts läuft aber sofort elektronisch und kann somit auch automatisch bei uns erfasst werden. Dies geht rein elektronisch in die Bearbeitungsprozesse... ins Kreditwerk, das ist eine Tochter von uns. Beim Aussendienst laufen und 90 Prozent aller Anträge über dieses System. Bei den Banken sind es wesentlich weniger, da sind es knapp 40 Prozent und diese Quote wollen wir natürlich steigern und deshalb haben wir auch zugestimmt dass wir, dass nicht mehr unser eigenes Beratungssystem vor Ort in den Banken ist, sondern dass unser Beratungssystem praktisch integriert wird in die Bankenberatungssysteme. Die haben umgestellt mit unserer Unterstützung (37:13) und Unterstützung von anderen Verbundunternehmen, dass es nur noch eine Oberfläche gibt, keine verschiedenen Programme mehr, das nennt sich dann Bank 21, oder Bankarbeitsplatz agree. Es gibt zwei Rechenzentren, noch, und der Bankbearbeiter schaltet sich nur einmal ein in dieses System und er kann ein Bankprodukt beraten, Versicherungsprodukt beraten, nen Fond, oder ein Bausparvertrag, alles im gleichen Produkt und alles nach der gleichen Systematik

 Example Innovation: Delivery

086

087 H.: Also muss ich mir das so vorstellen, dass der Bankmitarbeiter an die Hand genommen wird und auch die Beratungsinhalte in Teilen mitgegeben wird, oder? Oder wie muss ich mir den Prozess an dem Computer vorstellen?

088

089 R.: Also dass ist denn dieser Bankterminal, iss ne Eingabe. Die Productschulung ist ein anderes Thema. Also damit er sein Bankterminal bedienen kann, dafür ist das Rechenzentrum zuständig. Einfach Funktionalitäten, wie man eben nen PC Kurs vor einigen Jahren gemacht hat. Das ist also Thema vom Rechenzentrum. Produktinformation und Produktverkauf ist Thema von jedem Produkthanbieter.

 Institutionalization-
 NSD Structure

Und wir haben da eine zweigleisige Vorgehensweise. Einmal sind es unsere Aussendienstmitarbeiter, die die Bankmitarbeiter entsprechend informieren. Oder es ist direkt unsere Schulungsgesellschaft. Wir haben eine „Schwaebisch Hall Training“ Tochter, die die Banker informieren kann. Diese Schwaebisch Hall Training, wenn es Produktinnovationen gibt, schult auch die Aussendienstmitarbeiter. Da gibt es verschiedene Abstufungen. Erst einmal machen das die Führungskräfte direkt. Die kriegen einen Trainerleitfaden. Oder wir haben ein Web based Training, wenn das einfache Inhalte sind. Wenn es kompliziertere Inhalte sind, nutzen wir unsere eigene Trainingsgesellschaft, um auch in der ersten Stufe unsere Aussendienstmitarbeiter zu informieren, die dann entweder persönlich die Bankmitarbeiter informieren, oder wir lassen wieder durch die Schwaebisch Hall Training die Bankmitarbeiter schulen. Das hängt von den Inhalten von der Komplexität ab. Wenn ich mir den Zusammenhang zwischen der Produktentwicklung und dem Erbringungsprozess, ich nenn das mal so, anschau. Geht das dann immer einher dass, wenn ich ein neues Produkt habe...Wahrscheinlich ändern sich nur die Inhalte und der Prozess bleibt der gleiche, ja?

090
091 R.: Der Prozess bleibt oft der gleiche, muss nicht unbedingt der gleiche bleiben, kann auch sein das es hier Veränderungen gibt. Aber das ist auf jeden Fall ein Thema der Produktentwickler. Er ist noch zuständig für das Fachkonzept das für die Großrechner gemacht werden, macht er nicht selber sondern gibt er in Auftrag, und Fachkonzepte für unser Beratungssystem BSH Top bzw. Bankenberatungssystem Bank 21 oder Bank agree. Das steuert noch der Produktentwickler.

092
093 H.: Der kümmert sich nicht nur um die Inhalte, sondern auch um die Art und Weise der Erbringung, ich nenn das immer so, da die englische Version service delivery process heißt. Also so muss ich mir das vorstellen. Der Entwickler kümmert sich tatsächlich auch um die Dinge wie der neue Tarif dann auch an den Kunden herangetragen wird.

094
095 R.: Äh, technisch ja. Da spielt natürlich auch der Vermarkter mit, wenn es darum geht wie stellen wir irgend etwas dar, welches Wording wird genutzt.

096
097 H.: Klar der kennt sich aus ,der weiß welche Vokabel oder Schlagwörter gebraucht werden und wie man es abgrenzen kann am besten.

-  Institutionalization-
-  NSD Structure
-  Role of Product Developer

-  Collaboration
-  Role of Market Developer
-  Role of Product Developer

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098

099 R.: Der Vermarkter gibt dann auch in Auftrag wie muss die Schulung aussehen. Also das macht nicht mehr der Produktentwickler, also welche Elemente und Argumente bringt der in der Schulung. Der nutzt natürlich das Wissen des Produktentwicklers, aber der Vermarkter brieft die Schulungsgesellschaft oder die Leute die die Trainer Leitfäden vorbereiten.

 Role of Market Developer

 Collaboration

 Knowledge Transfer

100

101 H.: Also da gibt's die Arbeitsteilung weil das ist ja auch in einem späteren Stadium. Verstehe, Alles klar, das hab ich verstanden. Ich würde jetzt gerne noch einmal auf ein Beispiel eingehen. Wir hatten damals telefonisch über das Bildungssparen gesprochen. Den hatten Sie mir damals kurz ausgeführt. Trotzdem würde ich Sie gerne bitten, mir noch einmal diese Story, ja diese Entwicklung, dieses Projekt vielleicht noch einmal vom Anfang bis zum Ende oder wo es sich momentan befindet, noch einmal beschreiben könnten. Wie das angefangen hat, was Sie getan haben bisher, welche Schritte Sie gegangen sind

102

103 R.: Ich hatte Ihnen vorher schon gesagt dass unsere Innovationsmöglichkeiten sehr begrenzt sind durch die gesetzlichen Vorgaben. Dann überprüfen wir natürlich ständig in Strategieprojekten alle paar Jahre mal „gibt es nicht doch noch ne andere Möglichkeit wie wir diesen Bauspargedanken erweitern oder durch weitere Produkte breiter verkaufen können. Und im Rahmen eines solchen Brainstormings hat man sich mal überlegt, wir könnten dies eigentlich für Konsumentenkredite nehmen, also Konsumentensparen und Konsumentenkredit, zum Beispiel für Autokauf gab es schon mal solche Überlegungen, gab auch schon mal nen Angebot, und einfach rumgesponnen, und gesagt, ja wo sind eigentlich in Deutschland Defizite. Und damals war aktuell PISA Studie, ja, Deutschland liegt danieder

 Legal Constraints

 Example Innovation: Bildungsop

 Sending

 Sources of New Ideas

104

105 H: Wann war das?

106

107 R.: 4-5 Jahre etwa. Vielleicht auch nur drei-vier. Da hat es angefangen. Und wir machen auch ständig Marktbefragungen, was ist unseren Kunden oder den Deutschen allgemein überhaupt wichtig (*BROAD SCANNING*, Anmk H.). Und da kommt raus, die haben Angst dass sie nicht entsprechend abgesichert sind im Alter, dass sie nicht genügend Geld haben und da kam raus, genauso sehr machen sie sich Sorgen, ob Ihre Kinder und Enkel, auch die entsprechende Ausbildung bekommen

 Example Innovation: Bild

 Sources of New Ideas

können, die eben wichtig ist, damit sie sich selbständig mal im Leben zurecht finden. Und das ist gleichberechtigt, also Sorge um die eigene Altersversorgung, wie um die Ausbildung der Kinder. Und da haben wir gesagt, Mensch, da müssten wir doch irgendwie was hinbekommen. Altersvorsorge machen wir schon. Können wir auch was für die Ausbildung machen. Und dann haben wir gesagt, eigentlich ist das ja so, das machen ja nicht diejenigen, die jetzt selber in der Ausbildung stecken, die kommen entweder von der Schule oder müssen mal ne Fortbildung machen, wenn sie arbeitslos werden, oder wenn sich abzeichnet das in dem Berufszweig die Perspektiven begrenzt sind. Sondern das machen ja in der Regel die Eltern oder Großeltern. Und wenn ein Kind geboren wird, wäre es doch eigentlich ideal, jedes Kind kriegt praktisch zur Geburt von Eltern oder Großeltern, einen Bildungssparvertrag, der wird angespart, bis das Kind Abitur gemacht hat, oder Mittlere Reife gemacht hat, und wenn man dann Geld braucht, damit man, man weiß es nicht, auf die Privatuni gehen kann, der Staat hat immer weniger Geld, also man muss selber immer mehr Geld zuschießen. Wie auch immer, oder ob ne Studentenbude mal davon gekauft werden soll. Da müssten wir doch irgend etwas machen. Die Idee war naheliegend, wir haben da nen relativ langen Sparprozess, und dann braucht man das Geld während des Studiums. Jetzt haben wir im Bausparvertrag nur die Besonderheit, die Sparphase ist ok., aber wir zahlen das Guthaben in einem Betrag aus. Ist immer so beim Bausparvertrag. Jetzt müssen wir halt ändern, gucken, dürfen wir das rechtlich, geht das technisch, dass wir nicht in einem Betrag auszahlen, denn dann sagen uns Eltern und Großeltern, dann hauen dies das auf den Kopf, ja. Gehen ein Jahr nach Amerika und dann ist das Geld weg. Und gelernt haben se doch nichts. Sondern wir müssten eine monatliche ratierte Zahlung ermöglichen können. Über drei-fünf Jahre, je nach dem. Kann man entscheiden, wenn dieser Sparvertrag dann in die Zuteilung, heisst es bei uns, also in die Darlehensphase dann übergeht, dass dann dieses Geld monatlich genommen werden kann. OK?

108

109 Dann brauchen wir ne monatliche Auszahlung, und wir müssen auch gucken, es muss ja auch wieder zurückgezahlt werden. Dann ist immer die Schwierigkeit, wenn jemand Geld verleiht, kriegt er das auch wieder zurück, also Besicherung des ausgeliehenen Geldes. Da haben uns dann in der Kundenbefragung Eltern und Großeltern gesagt, kein Problem das übernehmen dann wir im Notfall. Schön wäre natürlich wenn das Kind das selber zurückzahlen würde. Hat

 Sensemaking-

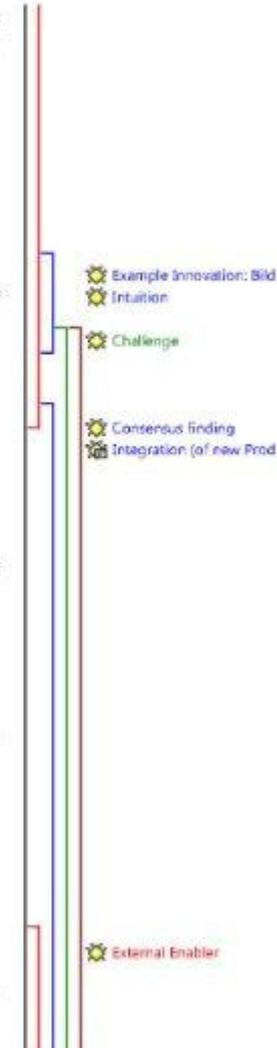
 Sensemaking-

ja jetzt eine gute Ausbildung, kann Geld verdienen und dann kann es auch die Raten selbst wieder zurückzahlen. Aber zur Not würden wir das auch machen. Kein Problem weil wir sind ja als Bausparkasse wir nehmen immer Gebäude zur Besicherung. Und das ist abweichend von unserem bisherigen Prozess. Wir haben keine Gebäude die wir besichern können, sondern brauchen die Bonität von Menschen. Oder, wenn es eben Eltern, Großeltern sind, die vielleicht unsere Kunden sind und haben ein Häuschen, ja, dann sagen wir zur Not können wir das immer noch absichern auf dem Häuschen. Und in sofern war das eigentlich naheliegend, es ist bloss bis dahin niemand auf die Idee gekommen, dass Bausparkassen sowas machen könnten. Und es ist bisher ein nicht zulässiges Geschäft für Bausparkassen weil wir ja nur Gebäude beleihen dürfen und nicht Menschen Geld für ein Studium, Auto oder sonst irgend etwas geben können. Deshalb brauchen wir, ne Gesetzesänderung, und die Gesetzesänderung im Bausparkassengesetz, bekommen wir nicht weil wir die größte Bausparkasse in Deutschland sind, das ist nicht so einfach, wenn wir da in Berlin an die Tür anklopfen beim Finanzministerium, und dann sagen die, ja morgen kommt Wüstenrot, die wollen was anderes, sondern die sagen, einigt euch in der Branche, und dann sind wir in unsere Verbände gerannt, und die Branche die haben halt ein bisschen Sorge gehabt, wir als die Größten, haben schon alles durchdacht, wenn wir denen den Weg zu schnell ermöglichen, dann werden wir von denen an die Wand gedrückt. Und deshalb haben die zunächst einmal gesagt, ja wir haben andere Probleme, Wohnungsbauprämie, Riesterförderung für Wohneigentum, bis diese Punkte abgearbeitet sind, dann reden wir wieder über diesen Punkt. Und deshalb sind wir nicht weitergekommen, haben zwar schon mit unterschiedlichen Politikern geredet, Bildungsministerin, Frau Schafrahn, wir haben auch schon Steinbrück ne Botschaft entsprechend geschickt und noch anderen, aber es liegt auf Eis, die sagen einfach sobald euer Verband kommt, prüfen wir das wohlwollend. Wir haben auch mit Oettinger, Ministerpräsident Baden-Württemberg schon darüber geredet. Der findet das ganz toll. Bayern, Beckstein findet es auch toll. Aber wir kommen nicht weiter weil die Branche nicht mitspielt.

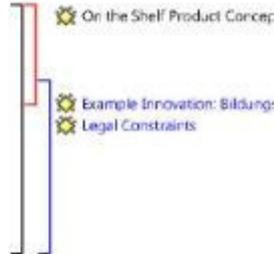
110

111

112 H.: Und da befindet es sich momentan. Da müssen Sie abwarten. Sind Sie denn da auch die klassischen Schritte durchlaufen? Bis zu welchem Schritt ist es denn gelangt in Ihrem Prozess? Diese Entwicklung des Bildungskredites?



113
 114 R.: Also wir haben ein formuliertes Produkt. Haben das
 abgeprüft auch durch die Marktforschung. Was wir noch
 nicht gemacht haben ist, ist eben der Auftrag, in die
 Programmierung zu geben. Weil wir noch kein Gesetz
 haben. Also die einzelnen Produktparameter sind ja noch
 nicht genau definierbar. Und wir haben auch schon einen
 Vorschlag wie könnte das Gesetz aussehen, was müsste da
 geändert werden, das ist alles schon gemacht.
 Produktkalkulation ist gelaufen, wir würden Geld dran
 verdienen.



115
 116 H.: Also dies würde Sie in den letzten Jahren bezeichnen als
 eine Entwicklung, die schon einen hohen Neuheitsgrad hätte,
 wenn sie denn klappen würde

117
 118 R.: Das wäre ein neues Produkt. Dieses gibt es so nicht in
 Deutschland am Markt. Gut also Zwecksparrverbot gilt ja für
 alles anderen bis auf Bausparkassen, somit haben wir da fast
 leichtes Spiel. Aber das wär wirklich ein neues Produkt.

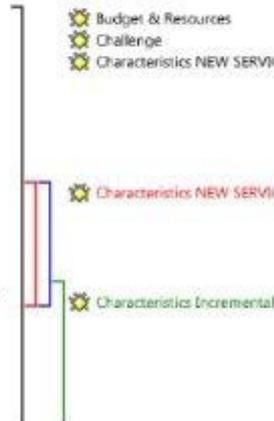


119
 120 H.: Und was wäre wenn wir so ne Art Strahl, also das würde
 ganz weit ausschlagen diese Produktentwicklung, was ist in
 Ihrem Haus, in Ihrer Abteilung, was sind Kriterien um zu
 sagen, das ist jetzt was neues, gibt es da ne Art Kriterium, ne
 Art...sobald es diese und diese Prüfungsmechanismen

121
 122 R.: Ja es ist auch definiert, was ist nur ne Produktvariante,
 und was ist ein neues Produkt,

123
 124 H.: und abhängig davon sind auch die Aufgaben und Ziele?

125
 126 R.: Aufgaben und Ziele? Na klar man muss ... wenn wir ein
 neues Produkt haben, dann wäre das ja auch ein neues
 Geschäftsfeld eventuell, muss man natürlich EDV mäßig
 ganze Controlling Systeme in Richtung Vertrieb muss man
 neu justieren, erweitern, entsprechend. Oder man muss es
 abbilden können in einem Altsystem. als Unterpunkt
 entsprechend aber klar abgrenzen. Aber der entscheidende
 Punkt ist das Risikomanagement. Also wenn wir ein neues
 Produkt haben, wo wir in ein neues Geschäftsfeld wo wir
 noch keine Erfahrung haben oder da reicht ein nur neues
 Produkt, es existieren noch keine Erfahrungswerte, dann
 müssen bestimmte Simulationen gemacht werden. Was wäre
 wenn. Und wenn wir ein vorhandenes Bausparprodukt
 haben, da gesteht man uns zu da sind wir Profis, wir müssen
 bei jedem neuen Tarif natürlich auch ne Simulation über 30
 Jahre machen, aber das ist trotzdem kein neues Produkt, das



- läuft in dem bekannten Rahmen.
- 127
128 Bei einem neuen Produkt können wir ja nicht sagen, wir haben schon eine gewisse Erfahrung, also liegen entsprechend höhere Risiken vor, die dann auch konsequenter und durch im Prinzip alle tangierten Bereiche, was heißt das Bilanztechnische, was bedeutet das Geldanlagepolitik und so weiter, viel gründlicher geprüft werden müssen. Und zumindest müssen bestimmte Dinge definiert werden. Und das ist quasi vorgegeben durch Prüfungsvorschriften, und Risikomanagement, auch auf europäischer Ebene. Und wir versuchen natürlich auch aus eigenem Interesse, diese Prüfungsvorgaben möglichst zu übertreffen, weil wir natürlich auch nicht blind in irgend ein Risiko reinlaufen wollen.
- 129
130 H.: Sie hatten mir mal berichtet, von eine Conjoint Analyse. Grundsätzlich solche Tools. Können Sie mir dazu noch etwas berichten? Können Sie mir vielleicht hierzu schildern, welche Mechanismen Sie nutzen, um in Ihrer Produktentwicklung zusätzliche Sicherheit, oder zusätzliche Dinge auszuschließen oder Potenziale zu erkennen, wie auch immer.
- 131
132 R.: Also wir gehen...ich nehm grad mal nen neuen Bauspartarif. ^
- 133
134 H.: Tarif kann man also betrachten als eine Weiterentwicklung von bestehenden Produkten.
- 135
136 R.: Genau. Wir wollen die Zinsvariablen, parameter ändern zum Beispiel davon und noch ein paar andere Parameter und davon hängen auch ab, wie viel Ertrag wir generieren können. Und wir gehen in der Regel so vor in der Marktforschung, dass wir immer ne zweistufige Marktforschung haben, dass wir erst einmal ne qualitative Marktforschung machen, also in Einzelinterviews, in Tiefeninterviews, teilweise in Gruppeninterviews, und zwar immer in drei Gruppen, oder drei Zielgruppen, Den Endkunden den Bausparer und da fragen wir immer Bausparer oder Kunden die schon Bausparer sind. (54:55) Kunden die vorhaben Bausparer zu werden. Und Kunden die sagen, sie wollen nicht Bausparer werden. Dann machen wir im Prinzip die gleiche Sache mit unseren Aussendienstmitarbeitern, ausgewählten natürlich, und mit Bankmitarbeitern verschiedenen Hierarchiestufen jeweils.
- 137
138 H.: zu welchem Zeitpunkt machen Sie diese im Prozess? Ist

- Analysis
- Characteristics NEW SERV
- Risk of NSD

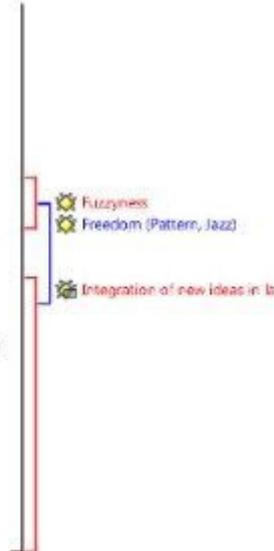
- Characteristics Incremental N
- Customer Perspective
- Example Innovation: New Tar
- Intuition
- NSD Structure
- Sensemaking-
- Sources of New Ideas

das quasi nachdem Sie evaluiert haben das ist erfolgsversprechend oder sogar noch davor.

139 R.: Noch davor.

141 H.: Aber Sie haben eine Idee bereits dann

143 R.: Wir haben eine Idee. Wissen aber noch nicht genau, auf welchem Punkt wir landen. Wir wissen wir würden gerne in eine bestimmte Range reingehen. Wir haben 20 verschiedene Produktvarianten gerechnet und haben Ertragsmäßig ne Lieblingsvariante. Und jetzt müssen wir gucken wird diese Lieblingsvariante von den Verkäufern einerseits und von unseren Endkunden andererseits auch akzeptiert. Und gelingt es uns vielleicht noch Kunden zu erschließen, die bisher dieses Produkt nicht gekauft haben, wenn wir dann irgendwelche Produktparameter verändern. Und hier in dieser qualitativen Tiefeninterviews oder Gruppendiskussionen nähern wir uns diesem Thema an. Da kriegen wir sehr viele Bauchmeinungen, zunächst einmal. Da fragen wir einzelne Produktparameter noch gar nicht so genau ab, sondern eher Grobschätzungen.

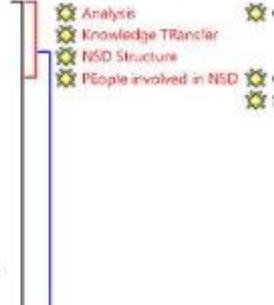


145 H.: Sie sprechen da mit Mitarbeitern oder mit Führungskräften oder Entscheidern von der Bank etwa.

147 R.: Unterschiedlich. Also mit Beratern und mit Entscheidern. Denn wir sind auf der einen Seite angewiesen auf die Berater, die Mitarbeiter in der Bank, die müssen das dem Kunden nahebringen, die haben die Erfahrung, die bekommen immer Feedback vom Kunden. Und auf der anderen Seite die Entscheider, wie können die sich das vorstellen. Das ist für die oft auch ne Ertragsfrage machen sie dass, meinen Sie sie können sich damit besser profilieren am Markt. Eigene Aussendienst genauso.



149 Dann auf dieser Grundlage wird, also das wird alles von einem Marktforschungsinstitut gemacht, entwickeln wir dann die Basis für die Einzelinterviews. Bei Kunden, also Bausparern, potenziellen Bausparern, wird immer ein persönliches Interview durchgeführt. Also keine Telefonbefragung. Manchmal machen wir noch Ergänzungen über Online-Befragung. Aber in der Regel, wenn es um einen neuen Tarif geht, weil das sehr komplex ist, wird ein persönliches Gespräch geführt, das PC gestützt dann abläuft. Und zwar weil wenn wir Conjoint Measurement einsetzen, ist es ja wichtig, der Kunde muss ja, oder der Proband insgesamt muss ja viele Paarungen



vergleichen. Und damit wir auch nachvollziehen können, unter den einzelnen Paarungen, wie sind die Bandbreiten, muss das über PC eigentlich immer sofort eingegeben werden, wie hat der Kunde entschieden. Das kann man mit einem Blatt Papier nicht mehr machen. Sonst hat man hinterher einen riesen Erfassungsaufwand Und würde vielleicht auch das Ergebnis verfälschen. Also gibt man das direkt am PC ein. Vorher gibt es natürlich ein paar Aufwärmfragen, wie schätzen Sie das grundsätzlich ein, Ist für Sie Bausparen attraktiver oder nicht attraktiver wie vor fünf Jahren, oder was auch immer.

151 Und wenn es halt um die einzelnen Produktparameter geht,
152 wir können immer vier Produktparameter darstellen, dann im Paarvergleich. Also wir haben Guthabenzins, Darlehenszins, einen Zinsbonus, und dann noch eine vierte Komponente, eventuell Zuteilungszeit oder ähnliches. Und da wird dann eben paarweise dargestellt diese Variante und wir können praktisch jeden Zins x-beliebig variieren. Also wir können Guthabenzins erniedrigen, oder erhöhen, bei gleichem Darlehenszins, und bekommen dann mit, wie die einzelnen Produktparameter eingeschätzt werden. Und wir können dann sehen insgesamt, welcher Produktparameter hat für Kunden die größte Bedeutung, und können sagen, was ist wichtig, Guthabenzins oder Darlehenszins, oder Zinsbonus, oder was auch immer, oder Abschlussgebühren, was da immer abgefragt werden kann. Bekommen also hier ne Klarheit, deshalb haben wir auch in der Werbung alles auf die Darlehenskomponente gesetzt, weil wir halt erfahren haben dass spielt für die Kunden die größte Rolle. Und nicht sosehr der Guthabenzins.

153 Also gehen wir dann wenn wir die Erkenntnis haben, auch in
154 der Werbung auf den Darlehenszins. Wir können auch jeden Konkurrenztarif abbilden in der Befragung, zu unseren Tarifen, Also wir können einfach sagen, so jetzt nehmen den Tarif der Wüstenrot oder LBS, Die Produktmerkmale kennen wir ja, und lassen den vergleichen mit unserem Tarif. Und dann kriegen wir hinterher ne wunderbare Kennung, und wissen, was ist dem Kunden am wichtigsten, und welchen Zins akzeptiert er noch. Also wenn wir zum Beispiel einen niedrigen Darlehenszins darstellen wollen, das ist ja immer ein Wechselspiel, Guthabenzins und Darlehenszins, und irgendwelche Laufzeiten, dann muss der Kunde, der Kunde muss gleichzeitig die Kombination Darlehenszins und ein bestimmter Guthabenzins akzeptieren und dann können wir noch unterscheiden, gibt es für den ne bestimmt Schwelle? Schmerzgrenze beim Guthabenzins unter

Tools for Sensemaking

Competitive Situation BSH
Sources of Feedback
Vicarious Learning

Characteristics Incremental N
Complex

<p>die man nicht gehen kann? Oder nicht? Grundsätzlich, ist es so, Guthabenzins so hoch wie möglich Darlehenszins so niedrig wie möglich. Aber die müssen das ja in der Kombination kaufen. Und dann können wir genau erkennen, wo ist die Schmerzgrenze. Und wir haben erkannt als wir diesen neuen Tarif eingeführt haben, unter einen Prozent können wir nicht gehen, beim Guthabenzins, bieten gleichzeitig einen Darlehenszins von 1,95%, kommt beim Kunden gut an, Wenn wir aber auf 0,5 Prozent Guthabenzins gehen würden, und dafür 1,45 Darlehenszins, kommt das beim Kunden nicht so gut an, obwohl der Darlehenszins niedriger ist. Also so können wir das sehr genau austarieren, und können dann im Prinzip fast die gleichen Fragen stellen, an Aussendienst und Banker, wie schätzt Ihr das ein? Und gleichen natürlich die Endergebnisse die wir unseren Endverbrauchern gestellt haben, oder die wir von denen bekommen haben und von unseren Verkäufern.</p>	<ul style="list-style-type: none">  Balancing of different knowle  Integration (of new Product i  Sensemaking-
<p>155 156 Und dann können wir sehen, ist das deckungsgleich, schätzen die das gleich ein, und je näher das zusammen ist, so wahrscheinlicher ist es das das stimmt.</p>	<ul style="list-style-type: none">  Balancing of different knowledge
<p>157 158 H.: Also diese Erkenntnisse nutzen Sie in relativ frühen Phase...</p>	
<p>159 160 R.: Bevor wir das produkt letztendlich verabschieden. Wir müssen ja noch Handlungsspielraum haben. Da darf noch nix programmiert sein, sonst muss die Programmierung wieder geändert werden, das muss also ganz schnell gehen, wir brauchen für diese Marktforschung minimum 6 Wochen. Und deshalb ist das ein ganz wichtiger Zeitraum den wir da haben, weil bevor wir die Ergebnisse haben, machen wir das Produkt nicht fertig.</p>	<ul style="list-style-type: none">  Flexibility  Integration (of new Product in la  NSD Structure  Uncertainty Reduction
<p>161 162 H.: Verstehe. Wenn Sie...Aber diese Ideen für die Tarifveränderungen oder auch die neuen Proukten in Anführungsstrichen, generieren Sie vornehmlich, wenn ich das richtig verstanden haben, in Gremien, oder in Arbeitsgruppen.</p>	
<p>163 164 R.: In Arbeitsgruppen. Das muss auch vorher so sein. Klar wir kriegen schon über die Marktforschung Ergebnisse, was wollen wir? Wie zum Beispiel, also wir sind einfach mal auf die Ergebnisse gestoßen, Ausbildung der Kinder oder Enkelkinder ist genauso wichtig wie die eigene Altersvorsorge. Also da müssen natürlich die Alarnglocken an gehen: Was heisst das für uns? Genauso wie Demographischer Wandel. Was heißt das für uns? Wenn wir</p>	<ul style="list-style-type: none">  Example Innovation: Bildungs  Fuzzyness  Sensemaking-  Sensing  Sources of New Ideas

immer mehr ältere haben, was heißt denn das für uns?
 Wollen die noch einen Bausparvertrag oder wollen die keinen Bausparvertrag mehr. Wie können wir das machen?
 Also das sind einfach, klar im Marketing essentielle Fragestellungen, die man da hat.

165
 166 H.: Und wer hat da die Augen auf um solche Strömungen zu erkennen?

167
 168 R.: Also das ist schon Marketing, Produktmanagement, die müssen das alles anstoßen. Die können ja sagen, beliebig, komm lass uns mal reden, lass uns mal spinne, lass uns mal brainstorming sitzung machen. Oder die Markforscher haben ne neue Studie gemacht, sichten, was steht denn da drin. Und da muss natürlich der Draht zwischen Produktentwicklern und Marktforscher gut sein, oder die Vermarktungskollegen erfahren wir kriegen da zunehmend Probleme, da muss einfach die Kommunikation offen sein.

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 170 H.: Fördern Sie solche Kommunikation?

171
 172 R.: Ja. Und deshalb sitzen wir auch im Marketing im Großraumbüro. Also wir sitzen nicht abgegrenzt in Einzelbüros oder Zweierbüros, sondern sind in Großraumbüros, Gruppenbüros, da sitzen ungefähr in jedem Gruppenraum 10 - 12 Mitarbeiter drin. Das ist aber alles offen. Alles. Das ist ein großes „U“, und man kann durch den gesamten Bereich durchgehen. Und das ist auch wichtig das die Kommunikation offen ist, und nicht nur über elektronische Tools die Kommunikation läuft, sondern dass man auch was mitkriegt. Also die Produktentwickler sitzen im gleichen Großraum wie die Vermarkter beim Bausparn. Und dann kriegen die mit wenn die Stress haben am Telefon, weil irgendwelche Banker sagen so ein Mist. Das kann ich ja nicht verkaufen. Das gibt Probleme. (65:50) So kriegen die das mit und so kommt eigentlich relativ leicht und schnell ne Diskussion zustande. Und dann können die Vermarkter sagen, Ihr blöden Produktentwickler warum gebt ihr mir so ein komische Produkt, das wird nicht akzeptiert. Oder Ihr müsst jetzt endlich mal was machen. Ihr lauft total am Markt vorbei. Die Diskussion entsteht.

173
 174 Das wird auch gefördert in Arbeitsgruppen.

175
 176 H.: Zu dem Thema zwei Anschlussfragen. Wenn ich mir anschau, die Leute haben in diesen Büros die Möglichkeit miteinander zu sprechen, werden diese dann in Einzelfällen auch eigenständig aktive und sagen so jetzt setzen wir uns

- ☒ Sensing
- ☒ Flexibility
- ☒ Ideation Activities
- ☒ Ideation Activities
- ☒ Collaboration
- ☒ Needed Expertise
- ☒ Open Kommunikation
- ☒ People involved in NSD
- ☒ Enablers for Free Flow of Inform
- ☒ Free Flow of Information
- ☒ Work Environment
- ☒ Collaboration
- ☒ Constructive Conflict
- ☒ Discussion
- ☒ Enablers for Free Flow of Inform
- ☒ Free Flow of Information
- ☒ Open Kommunikation
- ☒ Sources of Feedback
- ☒ Work Environment

- mal zusammen und machen dies. Und können Sie mir dazu sagen, ob Sie dies aktiv fördern. Und ob es Freiräume gibt
- 177
178 R.: Also jeder der für ein Thema zuständig ist kann einladen zu einem Kreativmeeting. Und in manchen Phasen wird das von mir eingefordert. In anderen Phasen machen das die Mitarbeiter von sich aus. Aber die sind aufgefordert das zu tun.
- 179
180 H.: Also die haben im Endeffekt das Vertrauen von Ihnen dies zu tun.
- 181 R.: Ja.
- 182
183 R.: Die können auch, das macht der Produktmanager dann der jeweilige, da brauchen die mich gar nicht fragen, auch ausserhalb mal machen wollen, wenn das nötig ist, machen die dass.
- 184
185 H.: Diese Kontakte sind natürlich gefördert, weil die Leute in einem Gebäude sitzen. Schwieriger wird's, kann ich mir vorstellen, wenn ein Ideenaustausch mit Vertriebsmitarbeitern stattfinden soll oder mit Bankmitarbeitern, oder...
- 186
187 R.: Ja aber da gibt es auch die Möglichkeit. Genauso unproblematisch, also der Vertrieb bei uns im Haus, also Vertriebsinnendienst, ja, einen Stock über Marketing, und da gibt es auch immer die gemeinsamen Berührungspunkte, Arbeitsgruppen, und die können auch wieder ähnlich arbeiten und dann gibt es eine Vernetzung dann ist man schon doppelt so viele Köpfe. Und auch mit Aussendienstmitarbeitern. Es sieht so aus, ich mach zweimal jährlich eine so genannte Roadshow, wo ich alle Führungskräfte vom Schwaebisch hall Aussendienst sehe. Also ich hoffe dass ich einmal im Jahr jeden sehe. Denn ich kann die ganzen Roadshows auch nicht alleine machen. Das muss man sich auch aufteilen. Aber ich hoffe dass ich einmal im Jahr durch die Republik komme. Bei allen Führungskräften im Aussendienst. Also die BD Tagungen, die Betriebsdirektoren, dass ich zum Beispiel Ihren Vater einmal im Jahr sehe. Und dann präsentiere ich irgendwas und stelle Sachen zu Diskussion und bin offen für Anregungen, was ist für Euch wichtig.
- 188
189 Dann war ich jetzt grad, das hab ich mir aufgeteilt mit meinem Chef, wir haben alle Banken in Deutschland eingeladen, zu sogenannten Bankenforen, wieder auf der gleichen regionalen Ebene, Vertriebsdirektorebene. Und da sind 70% der Volks- und Raiffeisenbanken gekommen

- ☀ Collaboration
- ☀ Flexibility
- ☀ Leadership
- ☀ Sources of New Ideas

- ☀ Leadership
- ☀ Self-Responsiveness (Individuals)

- ☀ Accessibility of externals
- ☀ Collaboration
- ☀ Involvement of other departments
- ☀ Open Communication
- ☀ Sources of Feedback

- ☀ Integration (of new Product in)
- ☀ Involvement of other departments
- ☀ Sources of Feedback

- ☀ Collaboration
- ☀ Leadership
- ☀ Learning
- ☀ Sources of Feedback

und waren anwesend. Und dort stellen wir ein Thema vor. Da ist die Diskussion nicht so lebendig. Das ist ein größerer Rahmen. Da sitzen zwischen 50 und 100 Banker im Raum. Da ist die Diskussion nicht so einfach, aber man kann trotzdem mal ein Feedback bekommen, wie kommen die Dinge an. Und da versucht wie gesagt mein Chef oder ich, dass wir dort dabei sind, wir haben uns dort die Marketingparts aufgeteilt. Die halbe Republik hat er gemacht und die halbe Republik hab ich gemacht. Und dann sammeln wir auch Eindrücke und sind auch präsent draussen. Also wir können jederzeit angesprochen werden von jedem Bankvorstand oder von Marketing und Vertriebsleiter, je nachdem wer von den Banken hieran teilnimmt.

190

191 Und ausserdem sind ja auch wieder die Führungskräfte Aussendienst mit dabei, die haben dann ja auch die Möglichkeit Impulse nach aussen zu geben im Nachgang.

192

193 H.: klar. Eine mögliche Quelle von Anstößen sind ja auch Partnerunternehmen. Sie haben ja als dritten Bereich die Ergänzungsprodukte. Nutzen Sie diese einfach nur oder setzen Sie sich auch mit denen zusammen um was neues zu entwickeln.

194

195 R.: Also da wird natürlich immer kräftig diskutiert. Wir haben klar ein Vordringen definiert, wie müsste ein Produkt aussehen, dass wir von einem Produktpartner übernehmen.

196

197 H.: Bspw. Nen Investmentfond.

198

199 R.: Genau. Und da haben wir gesagt was müsste es uns bringen. Das muss verkaufbar sein durch unseren Aussendienst, das darf keine Konflikte mit den Banken erzeugen. Da gibt es auch einen Kriterienkatalog. Und ansonsten haben wir auch regelmäßige Produktmeetings. Mit Union-Investment. Und R&V. Und da ist es so, manchmal sagen wir, Mensch wir haben eine neue Idee, lass uns zusammenkommen ausserplanmäßig. Oder die haben eine Idee. Da kommt einer von denen R&V Versicherungen auf die Idee. Mensch das könnten doch die Schwäbisch Haller verkaufen, dann könnten wir den zehnfachen Umsatz machen. Und dann treffen wir uns. Meistens so dazwischen drin. Die sitzen ja in Wiesbaden unter Frankfurt. Dann treffen wir uns in Walldorf. Am Walldorfer Kreuz. SAP Zentrale. Im Holiday Inn. Hat sich über viele Jahre so eingebürgert. Das ist neutraler Boden. Und wir haben ungefähr die gleiche Fahrstrecke. Und dann diskutieren wir

Discussion
Formalization

Characteristics NEW SERVICE
Characteristics of Non-Core Bu
Formalization
NSD Structure
Accessibility of externals
Characteristics of Non-Core Bu
Collaboration
Connectedness to other partne
Discussion
Exemple Innovation: Zusatzpro
external collaboration
External Collaboration with Par
External learning
Flexibility
Freedom (Pattern, Jazz)
Knowledge Transfer
Institutionalization-

- dort. Und dann kommt zum Beispiel irgend so etwas raus. Könnt Ihr nicht ne Gebäudeversicherung im Zusammenhang mit Euren Darlehen verkaufen. Wir haben eine tolle Idee. Ihr bietet das dem Kunden für zwei Jahre kostenlos an und in der Regel bleibt er dann bei dieser Versicherung wenn er es zwei Jahre kostenlos gemacht hat. Und dann kann die R&V da richtig schön Geld verdienen. Zum Beispiel.
- 200
201 Und dann wird drüber geredet, ja ist das sinnvoll, ist dein Markt da? Wer zahlt das? Und so weiter ja.  Consensus finding
- 202
203 H.: Nehmen wir mal das Beispiel dieser Zusatzversicherung die mit der Baufinanzierung einher beraten werden kann, was für Änderungen haben sich für Schwaebisch Hall dann aufgetan um die Sache zu implementieren? War das für Sie noch einmal eine neue Herausforderung das zu integrieren, oder wenn so ein Vorschlag vom Partner kommt. Was hat das für Sie bedeutet in der Umsetzung? Oder in der Entwicklung?
- 204
205 R.: Also wir sind da voll in der Entwicklungsphase drin. Das bedeutet, wer zahlt das. Die Idee ist gut. Ist super wenn ich dem Kunden sagen kann zu kriegst was umsonst. Was kostenloses ist immer toll. (73:17) Vrekauf jeder gerne. Bloss die Frage ist, wer zahlt das dann?
- 206
207 H.: Zahlen im Sinne von Training etc.? oder zahlen von im Sinne..
- 208
209 R.: Ne, Ne, die zwei Jahre
- 210
211 R.: Und da sind wir noch in der Diskussion. Für uns würde das bedeuten wir müssten unsere Baufinanzierungskonditionen ein bisschen erhöhen, wenn wir das zahlen müssten.
- 212
213 H.: Und warum sollte BSH daran interessiert sein das zu zahlen?
- 214
215 R.: Ja genau das ist ist die Frage.
- 216
217 H.: Genau wenn ich mir vorstelle, ist das das Thema von R&V.
- 218
219 R.: Genau die wollen ja schließlich das Geschäft machen. Also warum sollen wir zahlen. Also so diskutieren wir halt und die überlegen sich wie können wir denen klar machen dass die nen Nutzen haben die Schwaebisch Haller, wenn die  Consensus finding
 Discussion
 Example Innovation: Zusatzprod.
 External Partners approach BSH
 Open Kommunikation

- die das für uns verkaufen. Und damit ne Kostenbeteiligung von uns bekommen. Das ist deren Ziel. Also wir reden da sehr offen, und manchmal sagen wir wir hätten da gerne nen Produkt von Euch. Und andererseits kommen die mal ganz gerne dass ihr was für uns verkauft.
- 220
221 H.: Also das sind letztendlich nicht nur Geschäftspartner sondern wirklich auch reden kann und wirklich auch redet und das auch auf kontinuierlicher Ebene.
- 222
223 R.: Man kennt sich. Man muss auch miteinander auskommen. Wir sitzen in gemeinsamen Gremien dann drin Volksbanken Raiffeisenbanken und versuchen immer auch die Banken etwas voranzubringen und haben verschiedene Berührungspunkte wo auch immer die gleichen Akteure, wir sind ja nicht so viele die Produktentwicklung und Vermarktung machen, die treffen sich dann zwangsläufig immer mal wieder. Also muss man gucken, wenn der andere grad kein Depp ist, das man auch miteinander auskommt und und gemeinsame Sache macht.
- 224
225 H.: Ja, ok. Das ist hochinteressant. Wenn ich noch einmal die Zusammenarbeit zwischen Produktentwicklern und den Marktmanagern ansprechen darf. Haben die Entwickler tatsächlich nur Entwicklungsaufgaben, oder separieren wir das mal in Aufgabenbereiche. Es gibt ja sozusagen Denkprozesse, in denen die Entwickler sich im Endeffekt wirklich Gedanken machen müssen, wie schaut das aus wie kann ich es machen, ja. Die auch konzeptionell wirklich Denkleistung vollbringen müssen. Gibt es denn auf der Kehrseite auch Aktivitäten die die Entwickler machen müssen, die im Endeffekt dringend sind, die Arbeitsaufwand bedeuten, aber die gemacht werden müssen. Dieses Spannungsfeld zwischen, ja ich muss jetzt dieses abarbeiten aber ich muss jetzt auch wirklich konzeptionell über diese Dinge denken...gibt es da ein Spannungsfeld in diesem Bereich?
- 226
227 R.: Ja teilweise schon. Es ist so, die sind von normaler Tagesarbeit eigentlich freigestellt. Die machen keine Vermarktung die Produktentwickler. Aber es gibt natürlich verschiedene Gremien die die selber steuern und einberufen. Da müssen Meetings organisiert werden, da müssen Protokolle geschrieben werden, da müssen Gesetze analysiert werden. Also insofern, gibt es natürlich schon Zeitprobleme teilweise, und vor allem wenn wir dann relativ schnell an den Markt gehen wollen, muss alles laufen, die Programmierung muss laufen, die Programmierer müssen
- Trust
- Connectedness to other partners
Relationship
- Role of Product Developer
Shielding developer from too e
Budget & Resources
Time Constraints

informiert sein, die Leute die die Fachkonzepte schreiben. Das muss alles durchgetaktet sein. Geht auch los wenn es um die Kosten...wir arbeiten ja mit einem Tochterunternehmen der Kreditwerk AG. Und wir holen praktisch Angebote von denen ein, für wieviel Geld macht ihr die Programmierung von einen neuen Tarif. Und dann sagen die, ja, drei Millionen, oder fünf Millionen oder was auch immer. Wir haben folgenden Aufwand. Und vor allem wir brauchen so und so lange dazu.

228

229 Und dann geht es natürlich los, in die Verhandlungen rein, ich glaub ihr spinnt, halbe Zeit, halbe Kosten. Und das ist natürlich schon ne Sache, das machen ja die Produktentwickler noch, da gibt es zwar ne Clearing Stelle. Aber die Clearing Stelle sitzt meist so dar, jahhhh, und dann muss der Produktentwickler natürlich auch gucken, dass er das zu nem akzeptablen Preis bekommt, weil es ja dann auch im Entscheidungsgremium, PQ, Produktentwicklungcomittee, durch den Vorstand genehmigt werden muss. Und spätestens dort kommen die kritischen Fragen. Und da ist, mach zwar meistens ich, aber oft sitzen auch die anderen Produktentwickler zumindest beim Meeting mit dabei. Und dann guckt man natürlich dass man gute Vorarbeit geleistet hat.

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231 H.: Das versteh ich. Wenn ich mir dann noch anschau, zwischen Produkterweiterungen, nen neuer Tarif, oder wirklich etwas was mehr Arbeit erfordert und auch Denkleistung erfordert. Wenn ich mir dann anschau, wenn ich als Produktentwickler nen Portfolio an Aufgaben habe, arbeitet der Entwickler an mehreren Projekten gleichzeitig?

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233 R.: Selten. Also wenn wir ne absolute Priorität haben. Jetzt zum Beispiel Riesterförderung. Ich weiß nicht ob Sie davon gehört haben. Also in einem Zug soll die Wohnungsbauprämie gekürzt werden oder vielmehr ne dauerhafte Zweckbindung eingeführt werden, und im Gegenzug soll Bausparkassen ermöglicht werden, aber nicht nur Bausparkassen, dass auch die Finanzierung von selbst genutztem Wohneigentum durch Riester gefördert wird. Dann sagen wir natürlich weitgehend alle Kapazitäten auf dieses Thema. Klare Aufteilung wer macht was von den Produktentwicklern. Dass also keine Doppelarbeiten da sind, die einen Däumchen drehen und die anderen schier verrückt werden. Also da wird dann entsprechend geguckt. Und da guckt man dann auch, dass andere Themen möglichst zurück gestellt werden.

234

Annotations on the right side of the page:

- A red bracket on the right margin spanning lines 228-231.
- A red tag with a gear icon: "Budget & Resources" (spanning lines 228-231).
- A red tag with a gear icon: "Challenge" (spanning lines 228-231).
- A red tag with a gear icon: "Tensions between internal and e..." (spanning lines 228-231).
- A blue bracket on the right margin spanning lines 232-233.
- A blue tag with a gear icon: "Priorization" (spanning lines 232-233).
- A blue tag with a gear icon: "Example Innovation: Riester I" (spanning lines 232-233).
- A blue tag with a gear icon: "Parallel projects" (spanning lines 232-233).

235 Aktuelles Beispiel haben wir, wir überlegen uns derzeit, ob wir auch nen Markteintritt in Russland machen, da soll auch nen Bausparkassengesetz verabschiedet werden. Und dann sagen wir halt zu den anderen die an diesem Projekt beteiligt sind, also die die Projektleitung haben bei Auslandsprojekten. Leute greift bei Euren ersten Überlegungen auf vorhandenes Material zurück. Nehmt einfach nen Tarif wie man ihn in Rumänien zum Beispiel hat. Nehmt einfach vorhandene Dinge. Guckt selber drauf. Wenn ihr wirklich irgend etwas von uns braucht, dann schreit ihr, sonst nehmt einfach vorhandenes Material. Und Anfang zweites Halbjahr reden wir noch einmal drüber, ob sich die Situation bei uns geändert hat.

Challenge
 Example Innovation: Market En
 Parallel projects

236
 237 Also da muss man auch die Produktentwickler freischaufeln. Und das ist auch ne Thematik, da kommt nicht jeder sofort rein. Also da muss man relativ viel wissen, damit man überhaupt handlungsfähig ist. Und man muss auch akzeptiert sein, weil das ist immer Projektarbeit, weil die anderen sind auch hochkarätige Spezialisten, nen Jurist, der seit Jahren in diesem Thema zu Hause ist, der dann noch zwei Adjundanten hat, die er auch immer wieder einarbeiten muss in diese Themen, und Finanzmathematiker, die das Feintuning machen, da muss eben auch ein Player langsam reinkommen, und akzeptiert werden von seinen Mitplayern, sonst kann ich die Projektleitung dort nicht machen.

Challenge Priorization
 Experience
 Expertise
 People involved in NSD
 Role of Product Developer

238
 239 H.: Also wenn ich mir. Also wenn wir einmal bei dieser Situation bleiben, ist es nicht immer so dass mehrere Projekte gleichzeitig laufen, sondern wenn es wirklich hart auf hart kommt, dann werden Prioritäten gesetzt.

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 241 R.: Dann werden Prioritäten gesetzt.

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 243 H.: Und grundsätzlich, wenn wir dies mal als Sondersituation markieren würden, haben Sie mehrere Projekte parallel. Und wie viele ungefähr

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 245 R.: Also es sind in der Regel nicht mehr als zwei, drei. Es gibt natürlich immer mal Anfragen, könnt Ihr nicht mit uns, wollt ihr nicht mit uns irgend eine Idee, die von aussen herangetragen wurde, dann muss man auch mal einen Blick drauf werfen, muss entweder sagen, ja, oder, lass uns verschieben reden wir in fünf Jahren wieder drüber. Also solche Arbeit muss natürlich auch gemacht werden.

Priorization Parallel p
 Time Constraints

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 247 H.: Wenn ich mir dann angucke in der Situation wo dann zwei oder drei Projekte parallel laufen, hat der Entwickler

aber immer nur ein Projekt.

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249 R.: nee, da kann es auch sein, dass er auch mal durch Arbeitsteilung zwei oder sogar drei gleichzeitig hat. Aber das ist dann in den nicht ganz brennenden Phasen. Wenn es wirklich ernst wird, werden andere Projekte wenn es geht gestoppt, und man konzentriert sich dann auf ein Projekt. Wenn eben diese Kapazitäten Produktentwickler nicht beliebig vermehrbar sind. Und die Leute haben auch extremes Insiderwissen, die wissen alles über die Etragskalkulation unserer Produkte, deshalb muss man auch von der Seite her, die Personenanzahl relativ gering halten. (83:53)

- ☼ Budget & Resources
- ☼ Parallel projects
- ☼ Priorization

- ☼ Expertise
- ☼ Needed Expertise
- ☼ Role of Product Developer
- ☼ Time Constraints

250

251 H.: Abschließend hätte ich noch eine Bitte, ob Sie mir mal eine Entwicklung schildern können in den letzten Jahren, die nicht so gut gelaufen ist, ob Sie vielleicht da mal etwas drüber erzählen können. Ein Beispiel.

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254 R.: Muss ich grad mal überlegen. Meistens werden die Sachen dann vor Markteinführung gestoppt. Also vielleicht ein Thema mit dem wir uns seit Jahren rumschlagen. Haben Sie schon einmal was von einer „Revers Mortgage gehört“?

255

256 H.: Also Mortgage klar....

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258 R.: Umgekehrte Hypothek. Also in den USA ist es zum Beispiel so, Sozialhilferegelung ist ja nicht so ausgeprägt wie in Europa. Der Amerikanische Staat hat sich überlegt. Bevor er Sozialhilfe in irgendeiner Weise bezahlt an Leute die Haus- und Wohneigentum haben, sollen die zunächst einmal ihre Hütte vervespern. Also die haben ein Häuschen zum Beispiel in Florida, mal gekauft, und haben jetzt aber vielleicht durch Aktienkrise oder was nicht mehr genügend Einkommen und müssten sonst Sozialhilfe beantragen. Und dann sagen die, bevor ihr Sozialhilfe bekommt, haben wir eine Möglichkeit, wir haben die geniale „Phennie May“, dass ist diese halbstaatliche Hypothekenbank, oder die vielmehr immer staatliche Absicherungen bekommt, und die garantiert, den Geschäftsbanken, wenn die diesen Menschen, 70, 80, oder wie alt auch immer, komm wir geben dir einen Kredit. Du kriegst jeden Monat 500€. Wir lassen das auflaufen, im Laufe der Zeit, und das wird dann abgedeckt bei deinem Tod durch Verkauf des Hauses. Das Haus fällt an die Bank. Und damit leistet man die Schulden ab, die du bei uns hast. Umgekehrte Hypothek.

- ☼ Example Innovation: Reverse

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260 H.: Verstehe.

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262 R.: Und die Überlegung ist, nicht nur war, ist immer noch, kann dieses System nicht auch in Deutschland eingeführt werden, eventuell unter einer anderen Prämisse. Jetzt gibt es vielleicht Selbstständige, die vielleicht keine ausreichende private Altersvorsorge haben in Deutschland. Architekt.. Mann verstirbt. Der Mann hätte immer noch ein paar Entwürfe gemacht. Er hätte somit Geld verdient. Die Frau sitzt da mit nem riesen Haus, ja, aber ohne ausreichende Einkünfte. Und jetzt wird man dann immer gefragt, meistens in solchen Fällen, gibt es nicht ne Möglichkeit, dass wir diese ReversMortgage auch in Deutschland einführen. Und ihr als Bausparkasse, als größte Bausparkasse, müsst doch das machen können, das ist doch euer Metier. Wir haben uns das genau überlegt, wie das aussieht, ob wir das machen können. Das Problem ist, das wir nicht wissen, was ein Haus z.B. in 30 Jahren wert ist. Nehmen se mal jemand der ist 60 und wir müssen damit rechnen, wenn das ne Frau ist, das sie mindestens 85 wird, wenn sie schon 60 geworden ist, wie man das von den Sterbetabellen von den Versicherungen her kennt. Müssen aber noch einkalkulieren, dass sie nicht nur 85 sondern vielleicht 90, 95. Wir wissen ausserdem nicht, wie viel das Haus dann wert ist, sorgt die noch dafür, dass das Haus in Stand gehalten wird, oder nicht. Also wir haben unheimlich viele Unsicherheitsfaktoren, also als ordentlicher Kaufmann, als Banker muss man dann Risikoabschläge machen, muss dann sagen, also wir können, Sicht heute, nicht 100% beleihen, sondern maximal vielleicht 50%. Nehmen wir nen Haus, Architektenwitwe, das Haus hat vielleicht einen Verkehrswert von 500.000€. Also könnten wir aber maximal, 250.000. Jetzt muss man überlegen, die Frau ist 60, die hat vielleicht noch viele Jahre. Und jetzt will die ja Geld bekommen. Und alles was da ausgezahlt wird, wird ja immer verzinst, man will ja Geld verdienen, also die Bausparkasse will ja Geld verdienen, über die ganzen Jahre hinweg. Zinseszinsseffekt wirkt hier natürlich brutal. Kann man sich vorstellen, nach 30 Jahren verdoppelt sich das Kapital normalerweise wenn man da irgendetwas gemacht hat. Und so ist das hier auch. Dann denkt die gute Frau. Mensch ich hab ein Haus im Wert von 500.000. Da krieg ich mindestens 2000 Euro monatlich Rente. Aber muss ja noch berücksichtigen, die wohnt ja noch drin, und man muss ne fiktive Miete ansetzen. Also das Haus würde wenn man das an jemanden anders vermieten würde, 1200-1500€ an Mieteinnahmen bringen. Dass müssen wir von dieser Rente die Sie bekommt wieder abziehen, also dann kommt im Schnitt bei einem solchen Häuschen ne monatliche Rente

 Transfer

 Sensemaking-

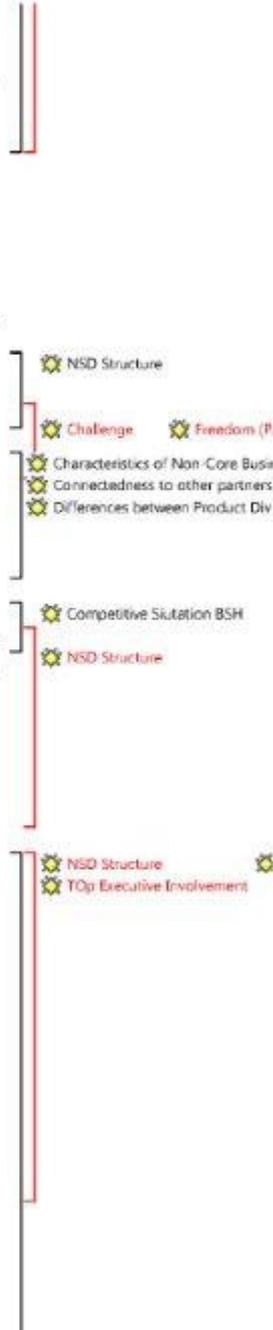
<p>von vielleicht 300€ oder so etwas. Und dann sagen die Leute ich glaube Ihr spinnst. Das Haus ist 500.000€ wert und Ihr wollt mich abspesen mit einer monatlichen Rente von 300 €. Das kann ja wohl nicht sein. Wir können das nachrechnen, wir können das darstellen, aber die sagen alle Ihr spinnst. Und dass ist natürlich auch sehr emotional. Wir haben da Marktforschung gemacht, Produkt durchgerechnet, mit Kombination mit Versicherungsprodukt noch, dass man eben ne Lebenslange Absicherung darstellen kann, dass man auch die Risiken ausgleichen kann. Aber da kommt einfach für den Kunden zuwenig raus. Und in der Marktforschung war es so: Die Probanden die wir befragt haben, waren sogar richtig empört. Solche Halsabschneider. Und zum Glück haben wir nicht genannt wer der Auftraggeber dieser Studie war.</p> <p>263 Und das geistert immer rum, das ist ne schöne Idee, 264 eigentlich nachvollziehbar, mensch ein Haus 500.000€ kann man doch vielleicht davon wespens, aber geht nicht so einfach, Langlebigkeit, Demographischer Wandel, und alles mögliche, da bleibt mit Sicherheitsabschlägen nichts mehr übrig. Und trotzdem werden wir ständig konfrontiert. Ihr müsst doch machen, Ihr sollt doch machen, von Politik, von Gremien, vom Bund, von Bankern, die diese Architektenwitwe als Kundin haben und sagt, was soll ich machen, das Haus zwangsversteigern, da muss es doch ne andere Möglichkeit geben. Und mitdem schlagen wir uns seit Jahren rum. Kommen aber auf keinen grünen Zweig also haben dieses Produkt auch nicht in den Markt eingeführt. Wir wehren uns mit Händen und Füßen dagegen und sagen, dass soll doch irgend jemand anderes mal vormachen, wie das geht. Alle anderen die den Mund groß aufgemacht haben, und angekündigt haben sie wollen das anbieten, haben alle einen Rückzieher gemacht. Das geht nur über Stiftungsmodell gibt es ein paar Ausnahmen, wenn praktisch der Rest dann verschenkt wird, an eine gemeinsame gemeinnützige Stiftung, aber als Produktangebot sind wir mit dieser Idee, die wir ja auch durchgerechnet haben, schon viel überlegt haben, gescheitert.</p> <p>265 266 H.: Und die Erkenntnis kam dann... gut die Marktforschung hat dann direkt gesagt es macht keinen Sinn...</p> <p>267 268 R.: Wir haben das relativ früh im Produktentwicklungsprozess was bleibt noch übrig auch schon gesagt. Wir werden aber immer von aussen angestoßen Ihr müsst doch so was machen können. Und dann müssen wir auch immer gute Argumente liefern, wenn</p>	<p>Empörung</p> <p>Empörung</p> <p>Difficulty to evaluate new idea</p> <p>Example Innovation: Reverse</p> <p>External Partners approach B</p> <p>Integration of new ideas in B</p>
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man selber in der Entwicklung drin war, ist das relativ einfach und logisch. Aber die von aussen, auch Banker, Verbandsvorstände, die sagen ich bin doch...ich kann nicht rechnen, die übersehen ein paar Dinge, und dann werden wir immer getrieben, und wir kommen immer in einer Rechtfertigungshaltung, warum wir dass nicht machen.

269 H.: Aber das hab ich nachvollziehen können. Ist halt nicht darstellbar.

271 H.: Zwei kurze Fragen, Die Geschäftsführung ist involviert
 272 haben Sie gesagt, im Bereich der Gremien, Vorstand sitzt mit dabei. Wie ist das Thema Entwicklung, Neuentwicklung, Strategisch...wie wird das grundsätzlich betrachtet von Schwabisch Hall. Wir haben also regelmäßige Strategieprojekte, wo wir unsere Geschäftsfelder prüfen, ist es das oder ist das nicht. Wobei wir begrenzt sind von zwei seiten Her. Einmal gesetzlich, und zum anderen vom Bund politisch, also im Prinzip die ganzen Finanzdienstleistungen sind aufgeteilt, Fonds macht Union Investment, Versicherungen macht R&V. Und wir Baufinanzierungen und Bausparen, Vorher hatten wir ja noch andere Konkurrenten, DG Hyp, die Hypothekenbank. Es gibt jetzt noch zwei Hypothekenbanken, die gehören aber nicht der DZ Bank. Also im DZ Bank Konzern sind wir jetzt der einzige Anbieter von Baufinanzierungen. Da macht man sich natürlich Gedanken, über Geschäftsfelder, und durch das das wir praktisch so ein regelmäßiges Produktmeetin haben durch das Produktentwicklungskomitee sind die entsprechenden Bereiche alle eingebunden. Die sitzen alle mit am Tisch. Und auch Vorstände Wir haben ja nur drei Vorstände. Eventuell alle Vorstände mindestens aber immer einer meistens sind es aber mindestens zwei wenn nicht alle.

273 Dann gibt es ne regelmäßige Diskussion. Diese
 274 Produktentwicklungskomitees sind durchgeplant immer für das ganze Jahr. Ungefähr 6-wöchentlich. Immer an dem Tag an dem auch eine Vorstandssitzung stattfindet. Dann weiss man die Kerle sind im Haus. Und dann können dazwischen bei Bedarf noch Sondersitzungen stattfinden. Und das was dort beschlossen wird ist wie Vorstandsbeschluss. Teilweise wird dann noch einmal wegen protokollierung für das Bundesaufsichtsamt im Vorstand praktisch das gleiche nochmal beschlossen, damit es im Vorstandsprotokoll, im Sitzungsprotokoll, erwähnt ist. Also in sofern alle da dran, Themen aus diesem Themenkreis werden auch immer bei Vorstandsklausursitzungen, die zweimal im Jahr manchmal auch dreimal im Jahr stattfinden, auch immer besprochen.



275

276 Also wie stellen wir uns zum Beispiel auf bei der
Baufinanzierung. Wie gehen wir um jetzt mit der
Förderproblematik, Riester Förderung,
Wohnungsbauprämie, heute ist Vorstandsklausurtagung, wie
stellen wir uns auf im Fondsbereich, oder in weitere
Vorsorge. Unter strategischen Gesichtspunkten.

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278 H.: Also dadurch das die Vorstände so stark eingebunden
sind also auch ein wichtiges Thema für die

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280 R.: Es ist ein elementares Thema für eine Bausparkasse.

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282 H.: Dann sind ja die Dienstleistungen sehr formalisiert. Also
die Bausparverträge, alles ist im Bauspargesetz geregelt,
gesetzlich festgeankert, man liest immer das wenn man
Dienstleistungen ein wenig strukturiert aufgebaut sind, das
man dann leichter schauen kann, was kann ich daran
verändern, was kann ich daran neu machen, ich weiß wie die
aufgebaut sind. Jetzt ist das ja bei Ihnen ein extremer Fall.
Wenn ich mir jetzt angucke, Beratungsgesellschaften haben
ja wirklich überhaupt kein Struktur wie die ihrer DL
aufbauen, die brauchen sich nach über haupt gar nichts
orientieren, die können nach Lust und Laune in
Anführungsstrichen, neue Konzepte hinzufügen, oder
ablehnen. Würde Sie das als Hinderniss ansehen, oder bietet
Ihnen das auch Vorteile, diese starke Formalisierung, die
Ihre Produkte oder Dienstleistungen kennzeichnet. Ein
gliabes grundsätzliches Urteil.

283

284 R.: Natürlich bietet es uns im Prozessing Vorteile. Also
unser Prozessing ist sehr stark durchstrukturiert. Wir kennen
die ganzen einzlenen Elemente. Und kennen auch das Gesetz
der großen Zahl, wir müssen gucken, wo können wir in der
Abwicklung effizienter sein, das spielt natürlich auch schon
immer eine Rolle in der Produktentwicklung. Also wie viel
kostet uns ein Bearbeitungsvorgang. Und wenn wir ein zu
kompliziertes Produkt haben, drückt es unseren Ertrag. Also
diese Dinge werden mit berücksichtigt. Und natürlich auch,
wie ich es vorher gesagt habe, wir wissen auch wenn wir
eine Marktforschung machen, ConJoint Analyse, welche
Parameter müssen wir abfragen. Das ist relativ einfach. Da
gibt es nicht so viel. Und wir können auch relativ schnell
unsere Kommunikationstrategie darauf ausrichten. Wenn das
für die Kunden, zum Beispiel der Guthabenzins wichtiger ist
dann gehen in die Werbung mit dem Guthabenzins, oder mit
der Anlegerrendite. Oder wenn der Darlehenszins wichtiger
ist gehen wir mit dem Darlehenszins in die Werbung. Und

 NSD Structure

 Strategic Relevance of Innovati

 Example Innovation: Process Imp

 Formalization

 Learning

 Through formalization improving

 Transparency

auch in der gesamten Kommunikation Richtung Verkäufer. Das ist so ein strukturiertes Produktangebot hat natürlich Vorteile. Also wesentliche Aufgabe es erst einmal in diese Komponenten zu zerlegen. Die Gesetzmäßigkeiten der einzelnen Komponenten zu erkennen, und dann kann man auch entsprechend damit arbeiten.

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286 H.: Würde Sie sagen dass sie dieses unterstützt sowohl in der Entwicklung von Erweiterungen also auch tatsächlichen Neuentwicklungen?

287

288 R.: Also Neuentwicklung ist relativ begrenzt. Wir sind ja in einem sehr schmalen Markt. Sehr stark reglementiert auch. Und da haben wir zum Teil Grenzen. Wenn ich jetzt zum Beispiel Baufinanzierung nehmen. Wir bieten ja jetzt nicht nur Baufinanzierungen an, die irgendwo verbunden sind mit einem Bauparvertrag. Sondern wie Hypothekenbanken, klassische Annuitätendarlehn und da haben wir natürlich auch einen vorgegebenen Rahmen. Da sind wir auch in der Regel nicht der große Innovator. Wir rechnen zuerst einmal was können wir für einen Preis bieten. Und sind hier aber Ertragsoptimierer. Da sind wir nicht, also bei annuitätendarlehn, oder Hypothekendarlehn gehen wir bis zu einem bestimmten Grad mit, wir müssen nicht der beste sein, sein, wir müssen aber unseren Kunden auch immer noch ein Angebot bieten können, und können sagen, ok, weil wir nicht der Beste sein müssen, müssen wir nicht nur davon leben, können wir nen Schnaps teurer sein, und verdienen dadurch ein bisschen mehr. Ist natürlich begrenzt. Bei Baufinanzierungen, wenn wir den Bausparvertrag unterlegen. Also Tilgungsaussetzungsdarlehn mit Ablösung durch einen Bausparvertrag, haben wir immer eine sichere Ertragskomponente, den Bausparvertrag. Können, wenn wir an dem relativ gut verdienen, auch attraktive Konditionen für dieses Vorausdarlehn nehmen, und können dort auch wieder spielen. Wir können unseren Ertrag maximieren, natürlich immer im Konkurrenzvergleich, aber müssen dort nicht an die äusserste Schmerzgrenze gehen. Wir haben da ne Mischkalkulation und müssen aus beiden Produktteilen, insgesamt einen Wunschertrag erzielen. Und zur Zeit jammert die ganze Baufinanzierungsbranche, wir haben Nullmargen oder sogar negative Margen, wir jammern da nicht mit, natürlich haben wir nicht unser gewohntes Niveau was wir dort erreichen wollen, aber das ist immer noch relativ komfortabel. Da wären andere Finanzierungsanbieter wirklich überglücklich, wenn sie in einer solchen Position wären.

289

-  Characteristics NEW SERVICE
-  Characteristics of Non-Core Busin
-  Example Innovation: DG-Hyp rel.

290 H.: Also letzte Frage. Wenn Sie sich Ihre Aktivitäten, hatten wir bereits im Telefongespräch angedeutet, möchte ich jedoch trotzdem noch einmal kurz ansprechen, mit den Wettbewerbern in Vergleich setzen, wie sehen Sie da die Position von BSH oder was denken Sie machen die anderen, was machen Sie. Wenn sie das einmal ins Verhältnis setzen.

291 R.: Ich hab es Ihnen auch schon gesagt. Wir gewinnen Marktanteile. Und deshalb müssen wir nicht über den Preis angreifen. Das müssen andere machen, die Marktanteile verlieren. Und deshalb können wir eigentlich relativ gelassen den Markt beobachten.

Competitive Situation BSH
Market position of BankPro

293 H.: Also Sie sind da in einer führenden Rolle. In einer absolut führenden Rolle und wir gucken auch so wenn wir bei unserer Produktkalkulation. Wir müssen nicht der günstigste Anbieter am Markt sein, wir möchte im ersten Drittel sein, aber müssen nicht der günstigste sein, können über unsere Mengeneffekte die wir haben natürlich auch durch die Abwicklung sehr günstige Kosten und im Umkehrschluss auch sehr gute Erträge erzielen, und alle anderen müssen uns praktisch angreifen. Die müssen besser sein als wir, was denen zum Großteil nicht gelingt, und die versuchen dann nicht auf breiter Front besser zu sein als wir, sondern vielleicht in einer Komponente in eine Tarifvariante. Das können wir dann immernoch sehr gelassen sehen, und dann müssen wir immer noch sehen, wenn die irgendwo in einer Produktvariante besser sind wie wir, können die das überhaupt vermarkten. Geht das nur im persönlichen Dialog in der persönlichen Beratung, dann ist das nicht so tragisch. Können die das aber in ihre Kommunikationskampagne einbinden, und da sind die Möglichkeiten unserer Wettbewerber weil die eine andere Kommunikationsstrategie haben meistens sehr begrenzt. Weil wir können beides machen. Wir können Imagewerbung machen, machen wir gleichzeitig. Haben Sie vielleicht schon gesehen. Unser neue Danke Spot. Danke das du in unserer Nähe bist. Danke für die Flexibilität, Danke.

Competitive Situation BSH
Market position of BankPro
Proudness

295 H.: Bin ich leider ungebildet.

297 R.: Müssen Sie mal Ihren Vater fragen.

299 H.: Ich habe nur unten den Spot gesehen mit Menschen, relativ dynamische Atmosphäre. Klar also die Imagekomponente habe ich dort auch festgestellt.

301 R.: Also wir haben den Imageteil. Produktmäßig durch

unseren Fuchs Teil in unserer Werbung frei agieren, was Produktwerbung betrifft. Und sind auch mit dem Fuchsteil immer in den Illustrierten. Da gehen wir nicht rein in Printmedien mit unserer Imagekampagne die läuft nur im Fernsehen. Und haben dort verschiedene Spielmöglichkeiten. Ohne Werbeeffekte zu verschenken. Wir machen sehr effiziente Werbung, also wir absolut den höchsten Werbeeffizienzgrad von den Bausparkassen. Mit sehr moderaten Kosten.

303

304 H.: Weil Sie es geschafft haben zu trennen erfolgreich in einem Spot Image und Produkt. Der Fuch ist dann wirklich Signal. mir ist es beispielsweise gar nicht bewusst, dass der Fuchs nur für produktspezifische Werbung steht.

305

306 R.: Tut er auch nicht, aber der Fuchs steht immer für Schwaebisch Hall. Und die Backsteine. Und dann sagen wir keiner bringt mehr Menschen in die eigenen vier Wände. Das ist ein Alleinstellungsmerkmal und wir sind der Vorreiter bei den niedrigen Zinsen. Auch wenn andere vielleicht niedrigere Zinsen haben, aber die können das nicht sagen. Die kommen nicht ins Fernsehen. Und in sofern haben wir eigentlich recht gute Voraussetzungen. Können relative gelassen sein, in der eigenen Branche, was natürlich drüber hinausgeht. Renten aus dem Ausland. Onlinefinanzierung. Onlineabschlüsse von Hypothekendarlehn müssen wir auch überlegen. Wir überlegen auch online Bausparabschlüsse zu ermöglichen. Der Markt ist aber noch nicht so weit. Da können wir auch sagen wenn wir nicht mit machen bewegt sich auch nichts im Markt. Es werden derzeit nur etwa zwei Prozent aller Bausparverträge online abgeschlossen. Wir bieten das nicht an. Weil wir sonst in Konflikt mit unseren Partnerbanken und mit unserem Aussendienst kommen würden, wir sagen erst wenn fünf Prozent der Bausparverträge online abgeschlossen werden dann müssen wir in den Markt rein. Aber vorher nicht. Deshalb können wir auch hier den Markt beobachten. Und so geht es an vielen Stellen. Und deshalb haben wir ne komfortable Marktposition, aber wir müssen natürlich hellwach sein, das wir diese Marktposition nicht nur verteidigen, sondern wir wollen ja weiterhin Marktanteile gewinnen, wir haben ein definiertes Ziel. Von 30 Prozent Marktanteil, jetzt haben wir erst 29,4 Prozent erreicht, da haben wir noch ein bisschen was zu tun, und wenn wir die 30 erreicht haben haben wir sicherlich ein neues Ziel,

307

308 H: Ja, kann man annehmen, ja.

Competitive Situation BSH

Competitive Situation BSH

Market position of BankPro

Example Innovation: Online E

Characteristics NEW SERVICE

Competitive Situation BSH

Market position of BankPro

Proudness

Strategic Relevance of Innov

Date: 11.09.2010

P 2: Interview_Hr Hohn_BSH.doc

Page: 36/36

309 Ich glaube ich habe momentan keine Fragen mehr. Danke
Ihnen noch einmal Vielen!

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12.2.3 List of preliminary codes: BankPro:

HU: backup of backup of BSH_27_5_09_nur Wohriester_mitLücken
 File: [C:\ESADE\Thesis0\firstthoughts...\backup of backup of BSH_27_5_09_nur Wohriester_mitLücken.hpr6]
 Edited by:Admin
 Date/Time: 11.09.2010 14:09:24

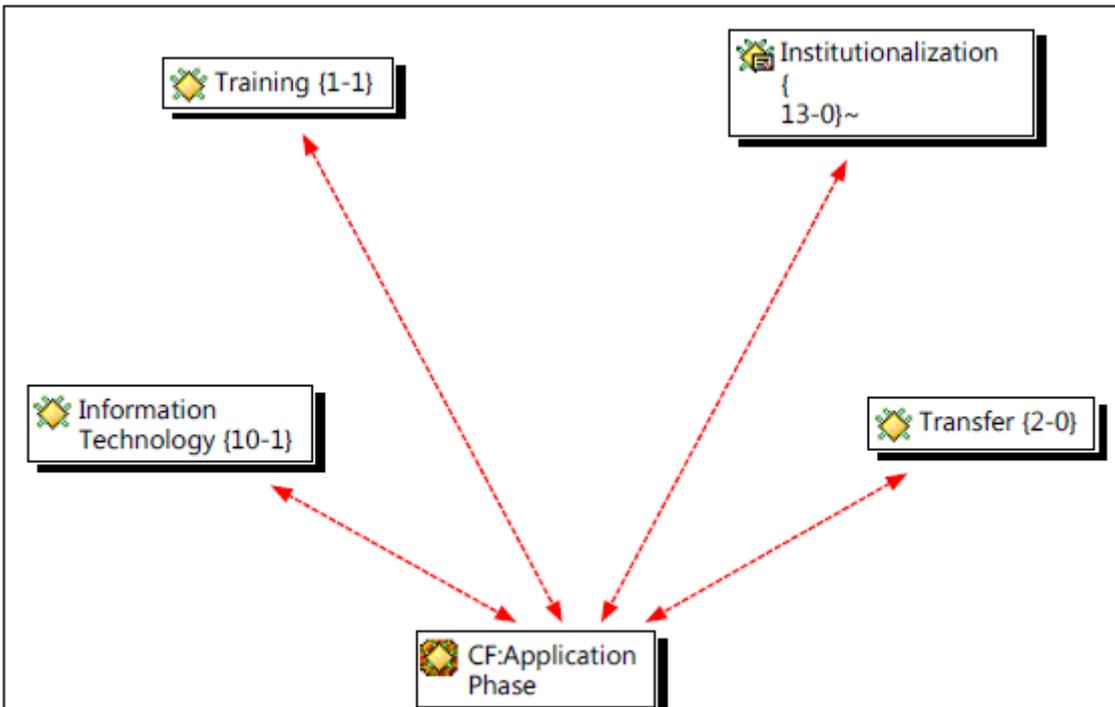
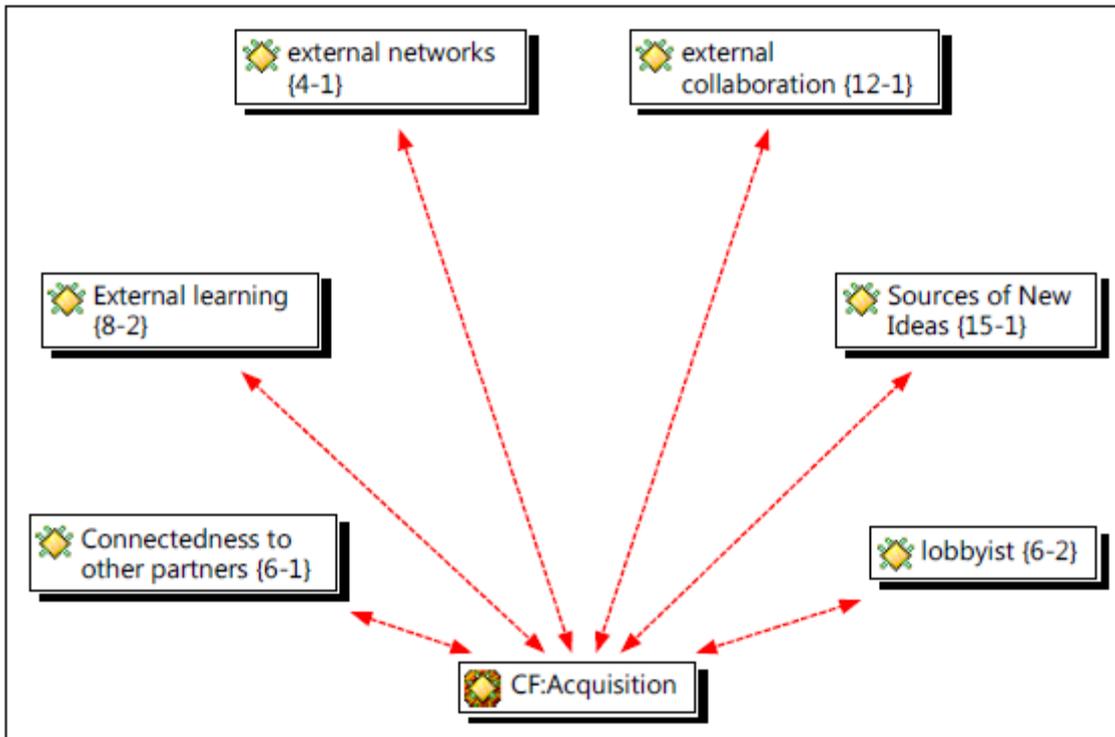
***Acquisition**
***Application**
***Boundary Spanners**
***Climate**
***Codified NSD Knowledge**
***External Context**
***Iterations & Parallelity of ACAP stages**
***Knowledge Base**
***Newness of Service**
***Strategic Relevance of Project for BankPro**
***Transformation Internal & External KL**
Absoprtive Capacity
Acessability of externals
Acquisition
Adapting to the new project
Ambiguity
Ambiguity Reduction
Ambition
Analysis
Application
Architectural Innovation
Balancing of different knowledge sources
Bank Crisis
Boundaries of acceptable ideas
Boundary Spanners
Bounded Rationality
BSH Business Scope
Budget & Resources
Cannibalization of partners' products possible
Challenge
Characteristics Incremental New Service
Characteristics NEW SERVICE
Characteristics of Non-Core Business
Climate
Codified NSD Knowledge
Collaboration
Combiing different NSD projects to one single project
Comparison Radical vs. Incremental
Competitive Siutation BSH
Complex
Connectedness to other partners
Consensus finding
Constructive Conflict
Continuous Observation
Controlling
Coordination
Cross-Knowledge needed also outside one's main domain
Customer Perspective

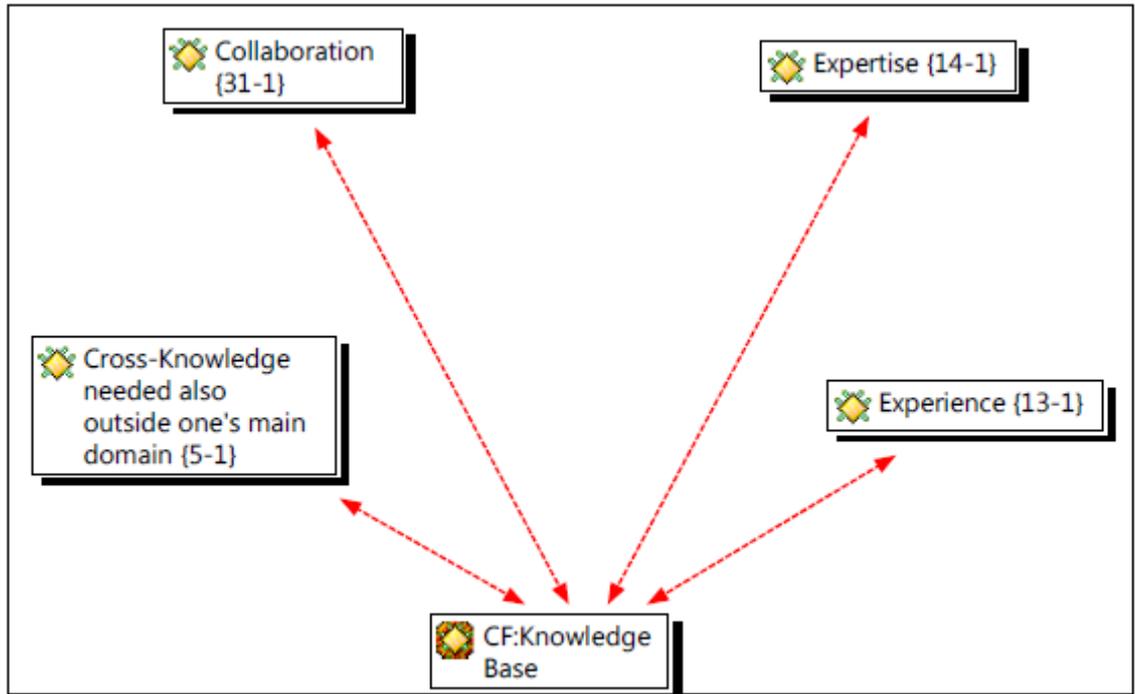
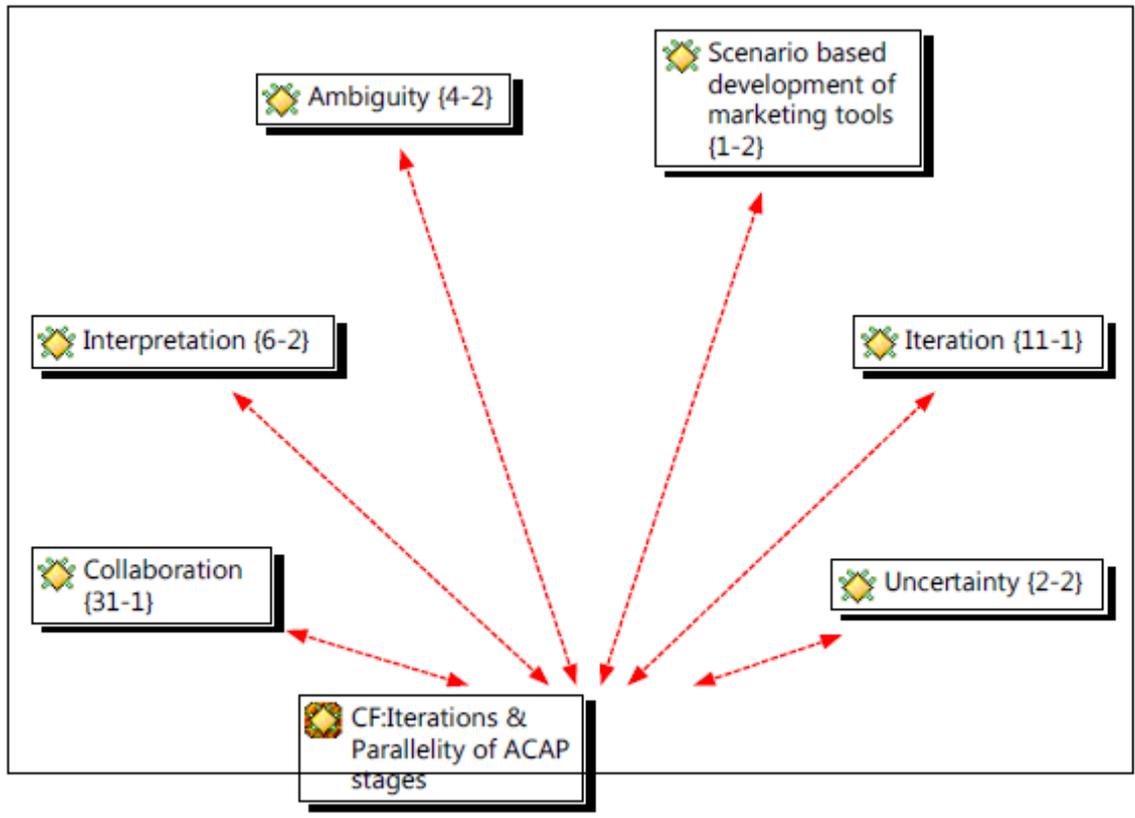
DEfinition Innovation at BSH
Delivery Process
Department Characteristics
Dependance from third parties
Differences between Product Divisions
Differentiation
Difficulty to evaluate new ideas
DIscussion
Division of Labour
Efficiency
Empörung
Enablers for Free Flow of Information
Escalation of Search Process (1. intern, 2. extern)
Evaluation
Evaluation of IDEAS
Evolution of NSD
Example Incremental NEw Service
Example Innovation: AktivMarkt related products (TA Darlehen?)
Example Innovation: Bildungssparen
Example Innovation: Delivery Process Innovation
Example Innovation: DG-Hyp related new product
Example Innovation: Finanzierungsportal
Example Innovation: Forward Darlehn
Example Innovation: Fuchs Wohnbau 30
Example Innovation: Konditionen / Provisionen Spielraum
Example Innovation: Leuchtturm Projekt TopZins
Example Innovation: Market Entry Russia
Example Innovation: Modernisierung Engergiesparen
Example Innovation: New Tariff
Example Innovation: Online Business (Delivery Process Innovation)
Example Innovation: Process Improvement
Example Innovation: Reverse Mortgage (Failure)
Example Innovation: Riester Förderung
Example Innovation: Teilbare Verzinsung
Example Innovation: Union ProfiRente
Example Innovation: Wohnriester
Example Innovation: Zinssicherheit für Baudarlehn, Annuitätendarlehn
Example Innovation: Zinssubventionen
Example Innovation: Zusatzprodukte
Example Service Innovaiton: Tarifgenerationen erweitern um Riester
Example Service Innovation: TA Darlehn
Experience
Expertise
external collaboration
External Collaboration with Partner
External Context
External Enabler
External Ideation
External learning
external networks
External Partners approach BSH
External Pressure
Falsible Product Developer: Accepted by themselves
First Check: Is the idea worthwhile
Flexibility
Formalization
Free Flow if Information
Freedom (Pattern, Jazz)

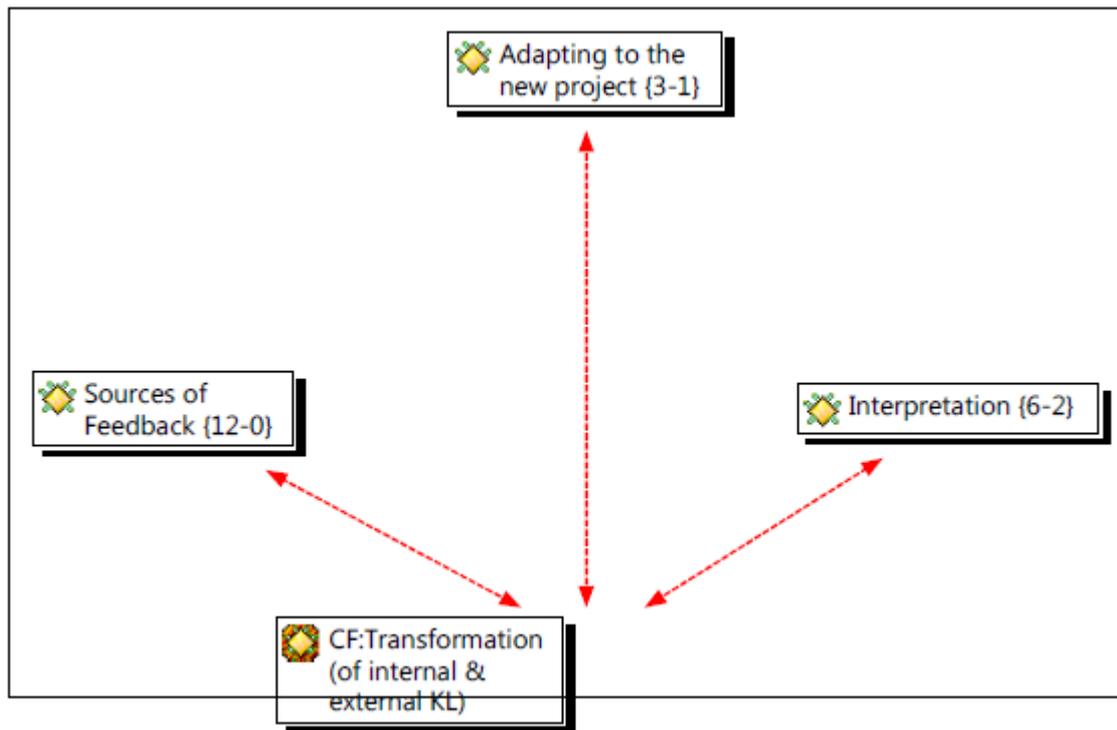
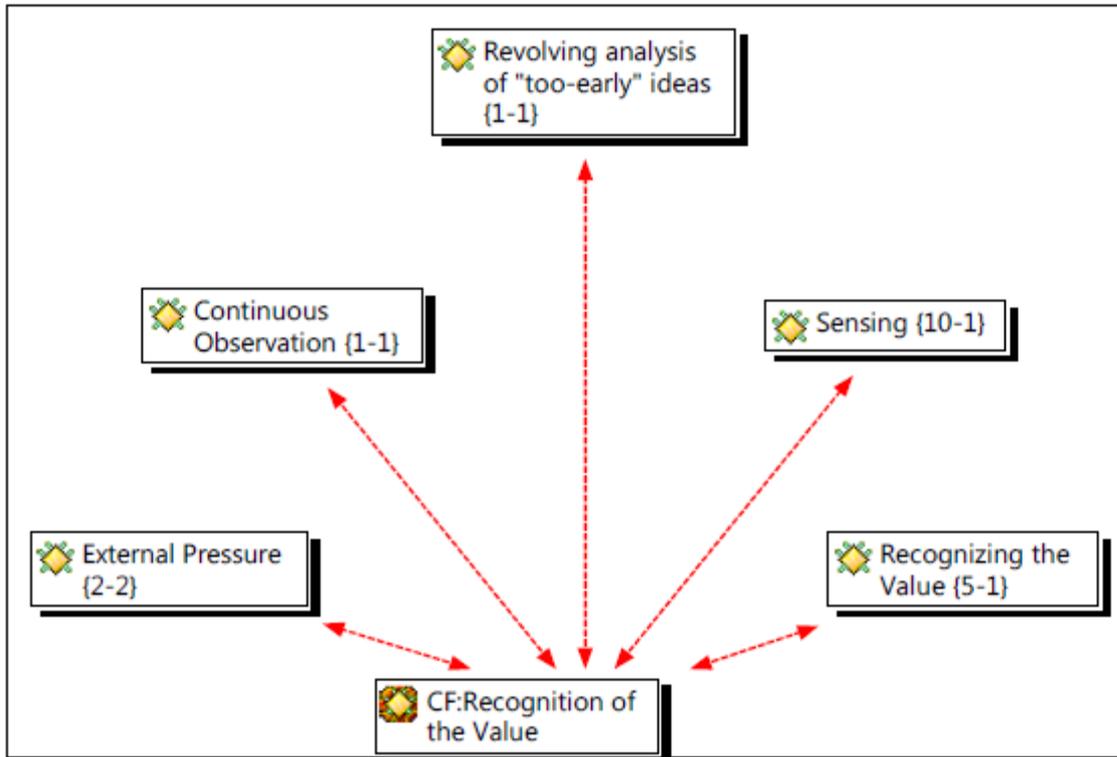
Fuzzyness
Ideation Activities
Importance of NSD at BankPro
Influence of external partners on NSD
Influence of Product Development over STage Gate Committee
Information of the sales force
Information Technology
Institutionalization
Integration (of new Product in larger system)
Integration of new ideas in larger system
Internal interfaces to other external partners
Internal networkds
Interpretation
Intuition
Involvement of other department in idea evaluation
Involvement of Product Developer in Radical and INcremental Developments
Involvementz of other departments in NSD
Iteration
Iterations & Parallelity of ACAP stages
Knowledge Base
Knowledge Data Bases
Knowledge TRansfer
Leadership
Learning
Legal Constraints
Legitimation of new idea
lobbyist
Luck
Market position of BankPro
Micro-Structure of NSD-project
Micro-Structure of projects
Needed Expertise
Network
New Business through Merger DZ-Bank and BSH
New Idea Characteristics
Newness of Service
NSD Structure
NSD volume
On the Shelf Product Concept
Open Kommunikaiton
Organigramm
Outourcing
Parallel projects
Patenfunktion von TOP Management
PECU Decisions Board
PEople involved in NSD
Pilot Test
Preliminary analysis of Ideas
Priorization
Product Developer als Schnittstelle
Product Lines of BSH
Product Management as interface
Product Manager Role
Proudness
Quality Control
Radical Change
Recognition of the value
Recognizing the Value

Reduce Complexity
Relationship
Revolving analysis of "too-early" ideas
Rigid Goals
Risk
RIsk of NSD
Role of Market Developer
Role of Product Developer
Routine
Scenario based development of marketing tools
Search how to built on existing routines
Self-Responsiveness (Individual agency)
Sensemaking
Sensibility
Sensing
Service Innovation: NEw Tariff Generation
Shielding developer from too early feedback (exploration)
Sources of Feedback
Sources of New Ideas
Sources of NSD projects
Stopped Projects
Strategic Goals of BSH
Strategic Relevance of Innovation
Strategic Relevance of new services
Tensions between internal and external players
Through formalization improving becomes complex but transparent
Time Constraints
Time to market
Tools for Sensemaking
TOp Executive Involvement
Training
Transfer
Transformation (Internal & External KL)
Transparency
Trust
Uncertainty
Uncertainty Reduction
Unfamiliarity
Vicarious Learning
Work Environment

12.2.4 Exemplary Final code families:

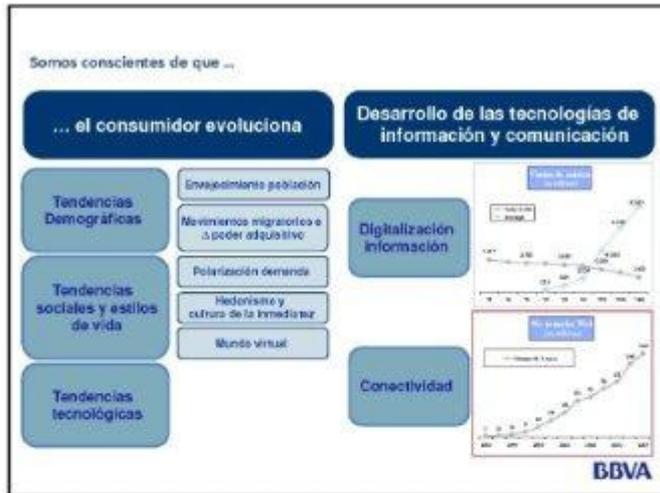






12.2.5 Exemplary documents: Case Study III: BBVA







Para ello, aprovechamos la evolución de la web

Web 1.0
1990 - 2000
Lectura
1990 - 2000

Web 2.0
2000 - 2007
Escritura
2000 - 2007

Contenido generado por usuarios
Colaboración comunitaria
Categorías y etiquetas
Algoritmos de recomendación

Nuevas tecnologías como herramienta de democratización

... y respondimos a la adquisición y al desarrollo estético, como opción preferida de ornamento

BBVA

1 Las nuevas tecnologías nos permiten generar nuevas formas de relación con el consumidor:

Revista digital para jóvenes
<http://www.webzines.es>

Comunidad financiera
<http://www.activa.com>

Comunidad desarrolladores
<http://www.plata26.com>

Revista Digital
Activa
plata26

Nótese
Daportex
Ocio

Información para no expertos
Derivados e inversión herramientas
Comunidad Inversora

Blog Marketing Digital
Libros de interés público
Sociedad libre

... con el objetivo de analizar comportamientos y hábitos de consumo

2 El desarrollo de las TICs permiten generar nuevos negocios digitales

Desarrollar servicios relacionales con el objetivo de extender la relación con el cliente

... extendiendo la *usabilidad* de la información

... extendiendo los atributos y valores asociados a la marca

BBVA

tu cuentas
Finanzas personales

1. **Agregación** de información
2. **Clasificación** automática de dicha información
3. **Análisis** de finanzas personales
4. **Comparación** con grupos de referencia
5. **Sugerencias** personalizadas

BBVA



Servicios de valor añadido de **contabilidad, control de gestión e impuestos** sobre una cuenta corriente

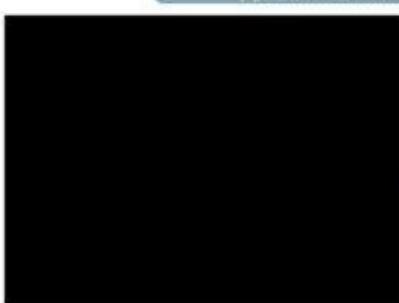


1. **Agregación de información**
2. **Contabilidad para autónomos y pymes**
3. **Análisis de tesorería**
4. **Gestión de impuestos**
5. **Gestión laboral**

BBVA

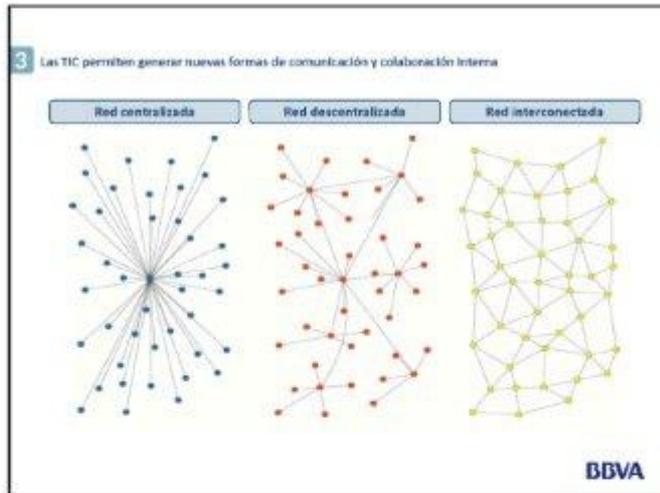


Servicio de almacenamiento y gestión de la información digital



1. **Digitalización de documentos**
2. **Almacenamiento virtual seguro**
3. **Indexación de la información**
4. **Gestión del ciclo de la información**
5. **Acceso remoto desde cualquier lugar**

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Gestión del conocimiento y nuevas formas de comunicación interna

<p>Transformar el conocimiento implícito en conocimiento explícito (documentándolo, almacenándolo y haciéndolo accesible)</p>	<p>Establecer nuevos canales de comunicación, más participativos, más accesibles y más "atractivos", para comunicar más y mejor</p>
<p>Facilitar el acceso a la información</p>	<p>Televisión IP</p>
<p>Comunidad virtual / Bloguera</p> <p>http://www.bbvablogs.com</p>	<p>Plataforma para almacenar, relacionar y gestionar la información</p>

BBVA

Nuestro objetivo

- Hacer la vida fácil a nuestros clientes ...
- ... en un entorno futuro que será diferente al actual ...
- ... con productos y soluciones sencillas y adaptadas a su forma de vida
- ... con el desarrollo de la digitalización de la información y de las tecnologías de la comunicación como grandes facilitadoras.

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¡Gracias!

**Innovación:
La visión del consumidor**

Madrid, 3 febrero 2009

BBVA



Consumer.Insight@BBVA

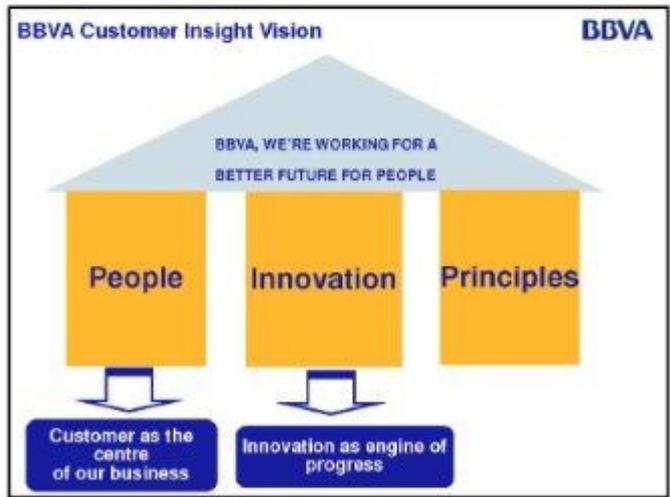
Consumer Insight & Customer Experience

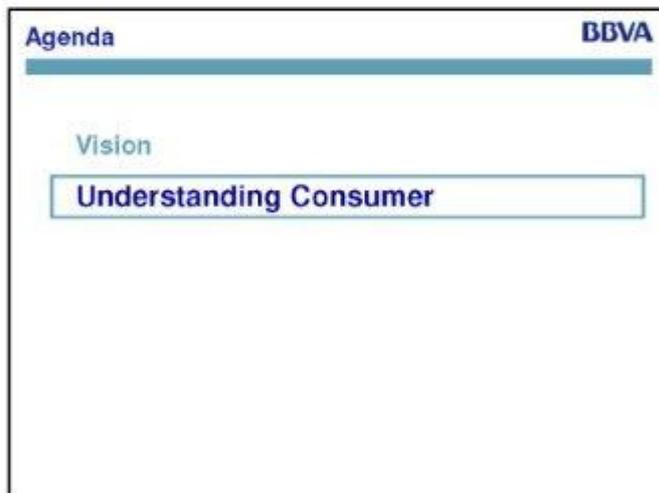
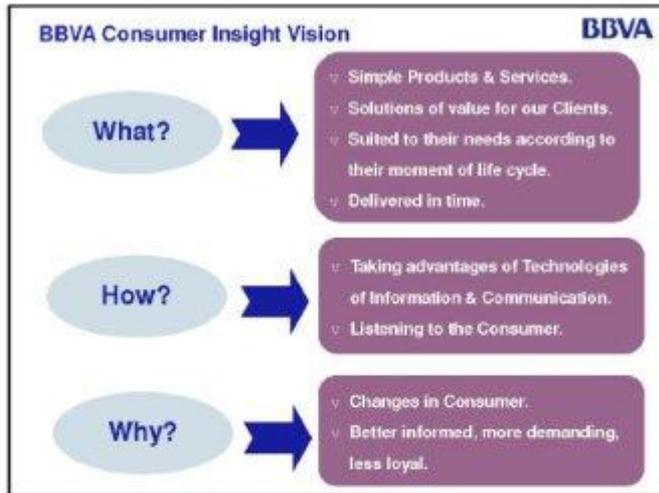
July 2009

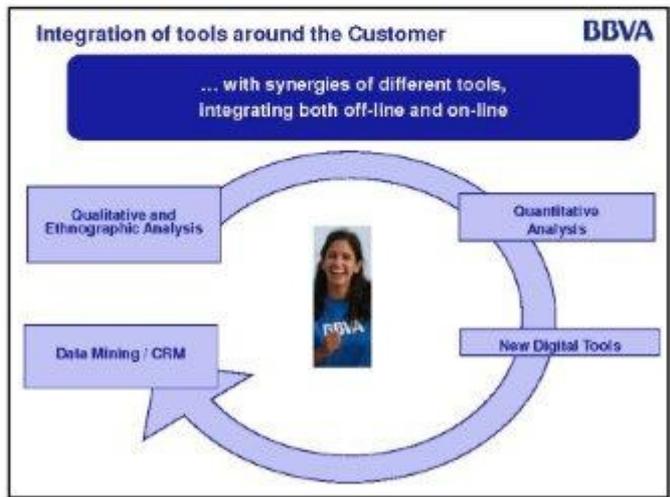
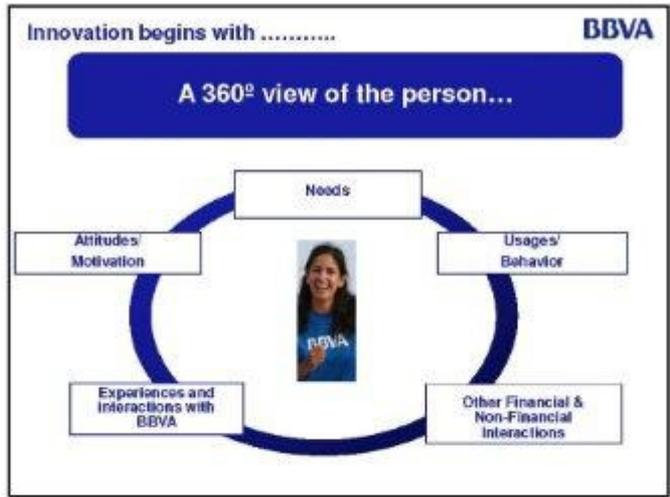
Agenda **BBVA**

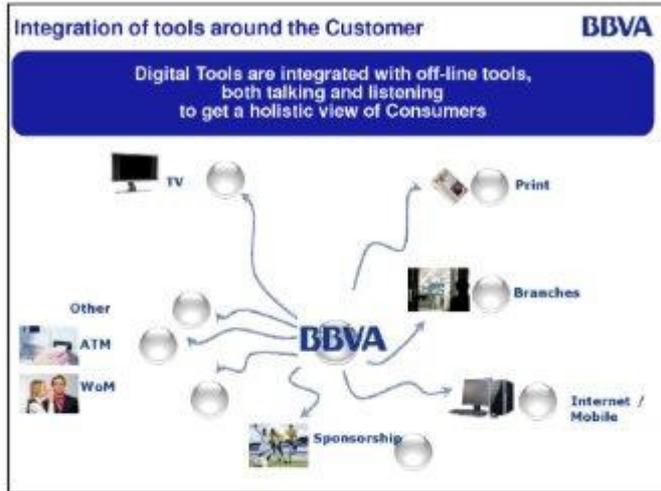
Vision

Understanding Consumer











Innovación: La visión del consumidor

Madrid, 3 febrero 2009

BBVA en el mundo



112.460
empleados

7.984
oficinas

> 45 millones
de clientes

Somos conscientes de que ...

... el consumidor evoluciona

Tendencias Demográficas

Tendencias sociales y estilos de vida

Tendencias tecnológicas

Envejecimiento población

Movimientos migratorios e Δ poder adquisitivo

Polarización demanda

Hedonismo y cultura de la inmediatez

Mundo virtual

Desarrollo de las tecnologías de información y comunicación

Digitalización información

Conectividad

Ventas de música (en millones)

Año	Ventas de CD	Descargas
1991	3.147	-
1992	3.783	-
1993	2.619	-
1994	2.216	0.054
1995	1.355	0.200
1996	1.458	0.400
1997	1.458	0.600
1998	1.458	0.800
1999	1.458	1.000
2000	1.458	1.200
2001	1.458	1.400
2002	1.458	1.600
2003	1.458	1.800
2004	1.458	2.000
2005	1.458	2.200
2006	1.458	2.400
2007	1.458	2.600

No. usuarios Web (en millones)

Año	Usuarios de 3 meses
1991	0
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
1998	0
1999	0
2000	0
2001	0
2002	0
2003	0
2004	0
2005	0
2006	0
2007	0

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... en 2004, Plan de I+D

Las respuestas de BBVA

Oferta personalizada

Ampliación de oferta a servicios no financieros

Accesibilidad

Aplicando inteligentemente la tecnología

Innovación disruptiva

Redefinir socios actuales

Crear nuevos negocios

Digitalización

Uso de la información

Entendimiento del cliente

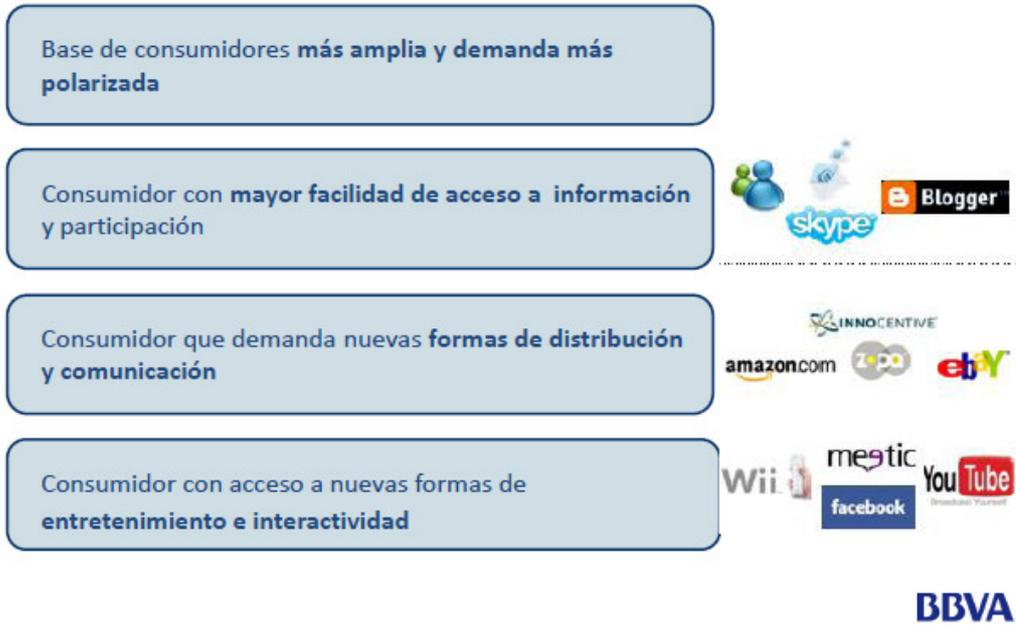
Anticipar nuevas necesidades
Customer Insight

Tecnología

Nuevos estándares
Nuevas tecnologías de la Información

Servicios y productos que faciliten la vida a las personas

La digitalización y la conectividad impactan en el mercado y en su comportamiento



El desarrollo de las TIC permiten ...



Para ello, aprovechamos la evolución de la web

Web 1.0
"The mostly read-only Web"
250.000 sitios
45 million global users
1996

Web 2.0
"The Web 2.0 era"
114.900.000 sitios
1.3 billion global users
2007

Usuarios: x 30
Sitios: x 600

Contenidos generados por usuarios

Software como servicio

Captura y agregación de datos para aprovecharlos

... y recurrimos a la adquisición y al desarrollo externo, como opción preferida de crecimiento

La opción prioritaria para el desarrollo de negocio es la adquisición

BBVA making the difference.

BBVA

1 Las nuevas tecnologías nos permiten generar nuevas formas de relación con el consumidor

Revista digital para jóvenes
<http://www.webzines.es>

Revistas Digitales
Música
Deportes
Ocio

Comunidad financiera
<http://www.actibva.com>

ActiBva anima tus finanzas
Información para no expertos
Democratización herramientas
Comunidad inversora

Comunidad desarrolladores
<http://www.planta29.com>

BLOGS
Blog Marketing Digital
Libros dominio público
Software libre

... con el objetivo de analizar comportamientos y hábitos de consumo

2 El desarrollo de las TICs permiten generar nuevos negocios digitales

Desarrollar servicios relacionales con el objetivo de extender la relación con el cliente

... extendiendo la *usabilidad* de la información

... extendiendo los atributos y valores asociados a la marca

The image shows three digital service interfaces from BBVA. On the left is 'tu cuentas finanzas personales' with a pie chart. In the center is '@conta Gestión Contable Online Grupo BBVA' on a monitor. On the right is 'VirtualCOC' with a blue interface and a 'VirtualCOC' badge. The BBVA logo is at the bottom right.



tu cuentas finanzas personales



1. **Agregación** de información
2. **Clasificación** automática de dicha información
3. **Análisis** de finanzas personales
4. **Comparación** con grupos de referencia
5. **Sugerencias** personalizadas

BBVA



@conta
Gestión Contable Online
Grupo BBVA

Servicios de valor añadido de **contabilidad, control de gestión e impuestos** sobre una **cuenta corriente**



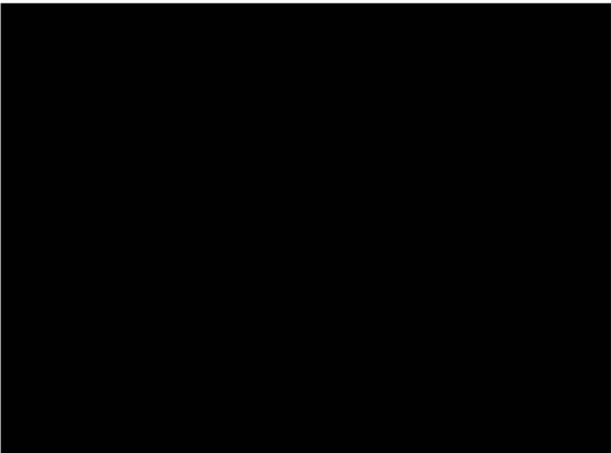
1. **Agregación** de información
2. **Contabilidad** para autónomos y pymes
3. **Análisis** de tesorería
4. **Gestión de impuestos**
5. **Gestión laboral**

BBVA



Virtualdoc
Grupo BBVA

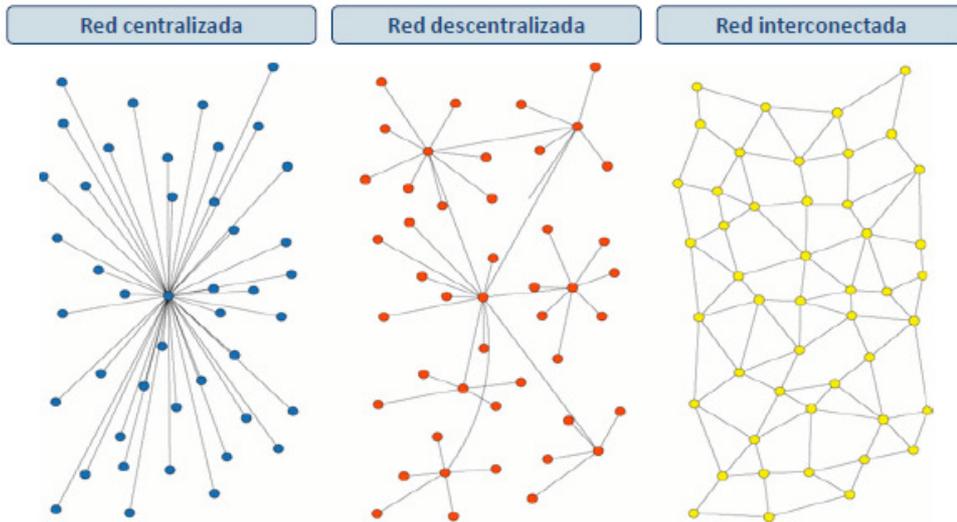
Servicio de almacenamiento y gestión de la información digital



1. **Digitalización** de documentos
2. **Almacenamiento virtual seguro**
3. **Indexación** de la información
4. **Gestión del ciclo** de la información
5. **Acceso remoto** desde cualquier lugar

BBVA

3 Las TIC permiten generar nuevas formas de comunicación y colaboración interna



BBVA

Gestión del conocimiento y nuevas formas de comunicación interna

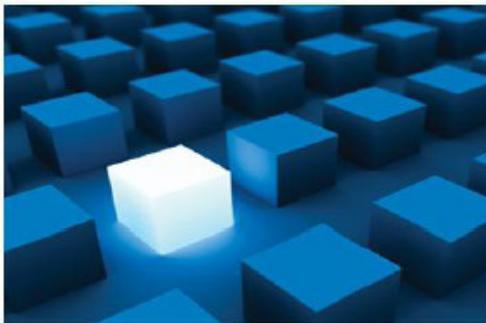
<p>Transformar el conocimiento implícito en conocimiento explícito (documentándolo, almacenándolo y haciéndolo accesible)</p>	<p>Establecer nuevos canales de comunicación, más participativos, más accesibles y más "atractivos", para comunicar más y mejor</p>
<p>Facilitar el acceso a la información</p>  <p>Comunidad virtual / Blogsfera</p> 	<p>Televisión IP</p>  <p>Plataforma para almacenar, relacionar y gestionar la información</p> 
<p>http://www.bbvablogs.com</p>	

BBVA

Nuestro objetivo

- Hacer la vida fácil a nuestros clientes ...
- ... en un entorno futuro que será diferente al actual ...
- ... con productos y soluciones sencillas y adaptadas a su forma de vida
- ... con el desarrollo de la digitalización de la información y de las tecnologías de la comunicación como grandes facilitadoras.

BBVA



¡Gracias!

**Innovación:
La visión del consumidor**

Madrid, 3 febrero 2009

Contenidos	Actos					Servicios		
Revista If...	Infonomía.TV	BlogsFuerza	Libros	Tienda	Update	Encuentro anual	Productos	Clientes



n65

NÚMEROS ANTERIORES

RSS

Contenidos

PORTADA

QUIÉN ES QUIEN

2020 FUTUROS POSIBLES

¿Fin, o principio, de una era?

CONTAMOS CONTIGO

La opinión de los lectores

IDEAS FUERZA

Better questions, better thinking

La ingeniería Kansei

CONVERSANDO CON...

Peter Watson

Kurt Brassel

A FONDO

Introducción

Innovación abierta: Nokia, IBM y los 'Living Labs'

«Innovar no es tener ideas sino llevar las cosas a la práctica»

Proyectos de innovación y desarrollo del BBVA

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A fondo

«Innovar no es tener ideas sino llevar las cosas a la práctica»

Manuel Castro, director de innovación y desarrollo del BBVA

Por Ismael Nafria

Una entidad bancaria tan tradicional como el **BBVA** (112.000 empleados repartidos por 32 países), a la que contemplan nada más y nada menos que 150 años de historia, está realizando una apuesta muy tangible por la innovación. Esta apuesta, concretada en un ambicioso grupo de innovación creado hace casi cinco años e integrado por unos 40 profesionales, tiene varias manifestaciones prácticas que hemos querido analizar en este número de IF...



La persona que dirige el Centro de Innovación del BBVA es Manuel Castro. A principios del mes de junio IF... se reunió con él y con los responsables de las principales iniciativas innovadoras desarrolladas por su equipo. Castro nos explicó las líneas maestras del plan de innovación del banco.

¿Por qué creó el BBVA un grupo de innovación?

Hace cuatro o cinco años el grupo decidió que tenía que crear un grupo de innovación para buscar la diferenciación en el mundo de los servicios financieros. Ha llegado un momento en el que, desde el punto de vista del consumidor, no existe una clara diferenciación entre los servicios que ofrecen las distintas entidades. Una cuenta corriente no deja de ser una cuenta corriente, y lo mismo sucede con una hipoteca o con un depósito a plazo. Por eso el grupo crea este grupo.

Por otro lado, el mundo está cambiando a una gran velocidad: el consumidor de hoy no es el mismo que el de hace 15 años. Y la gran mayoría de las entidades financieras seguimos pensando que el consumidor no ha evolucionado. Eso es lo que hace que los productos y servicios sean los mismos, que no haya diferenciación.

¿En qué se concreta el plan?

Para nosotros toda innovación empieza por el análisis del consumidor. Por tanto, una de las primeras decisiones que tomó el grupo fue la de crear en el entorno corporativo una unidad de *customer insight*. Si lo que decimos es que el consumidor está cambiando, lo primero que tenemos que entender es cómo, por qué y hacia dónde puede evolucionar este cambio. Cuáles son sus necesidades, cuáles son sus hábitos, cómo está variando su comportamiento...

A partir de ahí tenemos tres líneas de trabajo. La primera es la investigación y desarrollo de nuevas formas de marketing, de relación con este nuevo consumidor. La segunda es investigar y desarrollar nuevos negocios en Internet, ya que vemos que las tecnologías de la información y la comunicación empiezan a tener una función muy importante en los servicios financieros; se acumula una gran riqueza desde el punto de vista de la información, lo que abre un hueco muy

Extras

Ismael Nafria

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importante que queremos investigar. Finalmente, la tercera es investigar y desarrollar nuevas formas de relación dentro del grupo: nuevas formas de comunicación interna, nuevas herramientas para que los empleados del BBVA se relacionen entre sí.

¿Qué esperan lograr con la innovación?

Creemos que la innovación en los servicios financieros es algo distinto a la investigación en el mundo industrial. Para nosotros la innovación es eso: la combinación del análisis del consumidor con poner a determinadas personas a pensar. Creemos mucho en la inteligencia colectiva.

Pero innovar no es tener ideas; ideas hay muchas. Para nosotros la innovación es llevar las cosas a la práctica, hacer que las cosas pasen. Ideas hay un montón; gente capaz de llevarlas a la práctica hay muy pocas.

«Para nosotros la innovación es eso: la combinación del análisis del consumidor con poner a determinadas personas a pensar. Creemos mucho en la inteligencia colectiva.»

Desde el punto de vista de la generación de ideas, pensamos que la innovación es analogía. ¿Cómo surge esa analogía? De cosas e ideas que ya existen, poniéndolas en común, pueden surgir combinaciones no evidentes que pueden acabar en una nueva idea, en un nuevo servicio. Para conseguir eso creemos mucho en la inteligencia colectiva y por eso tenemos herramientas que nos permiten poner en común distintas experiencias.

Y como creemos mucho en la inteligencia y en el conocimiento distribuido, tendríamos poca amplitud de miras si nos quedásemos sólo en lo que es el BBVA. Hay muchas ideas, muchos proyectos, muchos emprendedores fuera, y creemos que hay cosas que se hacen mejor fuera de la casa. Así, intentamos llegar a acuerdos con personas a través de *joint-ventures* o de acuerdos de negocio para desarrollar conjuntamente proyectos.

¿Puede poner un ejemplo concreto de analogía?

Un buen ejemplo de esto es eConta. Si a una cuenta corriente de, por ejemplo, un emprendedor, de un autónomo, le uniésemos sus ingresos y sus gastos, podríamos tener el 70 u 80 % de su contabilidad. Así podríamos hacerle contabilidad analítica, declaración de impuestos y otra serie de servicios de gestoría on line. Eso es una analogía para nosotros. Un servicio de toda la vida, la cuenta corriente, con un producto o servicio como es la asesoría contable, los ponemos juntos y generamos un producto y un servicio nuevo y de valor añadido para el cliente. Además, una de las cosas que tenemos identificadas desde el punto de vista del análisis del consumidor es que para un autónomo o una pequeña empresa el llevar su administración es un auténtico dolor de cabeza.

¿Cuántas personas trabajan en total en innovación y desarrollo?

Ésa es una pregunta que no encaja bien con nuestra filosofía. En innovación corporativa somos unos 40, pero en cada una de las cinco áreas de negocio del BBVA hay también un departamento de innovación y desarrollo. Y no haríamos nada aquí con 40 personas, encantadas con lo que hacen, si todo el grupo no apoyara esta línea.

¿El plan de innovación cuenta con un calendario concreto?

El año pasado el grupo hizo público un plan de innovación y transformación. Es un plan inicialmente para tres años. Pero tratando las cosas que estamos tratando, nosotros no tenemos un horizonte temporal concreto, el plan no se acaba dentro de tres años.

¿Y existe un presupuesto determinado para innovación?

Tenemos y no tenemos presupuesto. Primero buscamos una necesidad de un cliente, de un consumidor, vemos si encaja en nuestra filosofía y, si el proyecto es bueno, lo planteamos a la casa y nos lo aprueban.

«Innovar no es tener ideas sino llevar las cosas a la práctica»

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Proyectos de innovación y desarrollo del BBVACompartélo:    **Comentarios****El código genético, es de utilidad individual?**

¿El conocimiento del código genético es importante para la prevención y el tratamiento de distintas enfermedades? Por ejemplo; Cáncer de mamas?, o cáncer de prostata? Este conocimiento precoz, permite algún tratamiento preventivo? o paliativo?

Escrito por Pablo A. Mazure [23/02/2009 a las 14:02]

COMO SE LLEVAN A CABO LAS INNOVACIONES

Muy de acuerdo con Nacho, sería interesante conocer cómo finalmente las ideas se convierten en productos o servicios, quién lleva a cabo el desarrollo del concepto, el propio proponente, un equipo desarrollador del Centro de Innovación dedicado exclusivamente a ello?, con qué recursos se cuenta?, cómo se estructura organizacionalmente y cómo se interrelacionan las diversas áreas funcionales. Todo ello ayudaría a entender mejor el modelo de gestión de la innovación que por cierto me pareció muy interesante

Escrito por David Rodríguez del Aguila [10/02/2009 a las 15:19]

¿Cómo se hace realidad la innovación?

Al hilo del comentario de Yolanda y las palabras Manuel Castro tengo suma curiosidad qué estructura organizativa y funcional, de procesos, proyectos, equipos o lo que sea... ¿Qué es lo que permite hacer realidad la ideas!? Cómo se lleva a cabo la implantación en BBVA de una idea a una solución/producto terminado. Sería interesante conocer la respuesta amigos de BBVA...

Escrito por Nacho [04/09/2008 a las 12:03]

ME HA GUSTADO LA ENTREVISTA

Me ha gustado mucho la entrevista y la he encontrado muy interesante, sobretodo porque creo que hoy en día la creatividad y la innovación son los puntos claves para las empresas. Desde el punto de vista de RRHH me ha encantado la frase que ha citado el entrevistado: Pero innovar no es tener ideas; ideas hay muchas. Para nosotros la innovación es llevar las cosas a la práctica, hacer que las cosas pasen. Ideas hay un montón; gente capaz de llevarlas a la práctica hay muy pocas.

Escrito por Yolanda Díaz [04/09/2008 a las 09:13]

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