

**FORMAL ANALYSIS VERSUS TRIAL-AND-
ERROR IN STRATEGIC INNOVATION: A
BUSINESS MODEL APPROACH**

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1. INTRODUCTION

The present dissertation is about strategic innovation, the process of developing novel business strategies. We will try to shed light on the question of how good strategies are developed.

The research will be centred on the question posed by the title of the dissertation: how do firms strategically innovate? Do they use formal analysis? Do they rely on trial-and-error?

Despite the numerous contributions to this topic, the novelty of our research is the business model approach. If a business model is the way companies create value for customers and capture a portion of this value, we convert the question of how good strategies are developed into the question of how good and superior business models are crafted.

The research will consist of a multiple-case study conducted over three firms: AUSA, Atrápalo.com, and Naturhouse. They have crafted good and superior business models in view of their impressive growth in sales in the recent years. The purpose of the multiple-case study is twofold: (i) confirm, challenge, or extend some theoretical propositions derived from the review of relevant literature; and (ii) learn about how good and superior business models are created.

The expected outcome and contribution of the research is also two fold: (i) provide with insight into the question of how good strategies are developed and good and superior business models are crafted; and (ii) provide the practitioners –entrepreneurs and existing firms- with tools to create new business models if business model innovation was carried out through formal analysis or with procedures to design experiments if business model innovation was carried out through trial-and-error.

In chapter 2 we present two visions and three versions of an initial conceptual framework built putting together some constructs that have appeared reiteratively in the selected references of the review of the literature. The initial conceptual framework allows reading the review of the literature of chapter 3 following an order. The initial conceptual framework also contains the theoretical propositions that are the bulk of the research, those related to business model creation.

Chapter 3 is devoted to the review of the literature.

In chapter 4 there is a section about what theory is and how theory is built and also a section in which the theory developed before the research (initial theory) is summarized.

Chapter 5 is about the case study as the preferred research strategy and chapter 6 is about the research design previous to the conduct of the research. The theoretical propositions to be confirmed, challenged, or extended are part of the research design.

In chapter 7 the reader will find the three case studies. Emphasis is put on the business model, on the business model representation, and on the innovation approach of the three firms.

Chapter 8 contains the three case study reports and the cross-case analysis. The reports are divided in three sections: (i) the analysis of the data in view of the theoretical propositions of chapter 6; (ii) how the main features of the business model were created; and (iii) the learning from the case study. In the cross-case analysis we remark the replication of findings across the three cases.

Chapter 9 is devoted to the analysis of both the research strategy and the results of the case studies.

In chapter 10, the theory developed throughout the research (ending theory) is compared with the theory developed before the research (initial theory), and the final conceptual framework built as an outcome of the research is compared with the initial conceptual framework. The extent of the research contribution is assessed thanks to both comparisons. We also detail two strategies to design good and superior business models derived from the analysis of the results of the case studies of chapter 9.

The conclusions of the research are remarked in chapter 11.

Finally, future research areas are delineated in chapter 12.

1.1. RESEARCH PROBLEM

The research will try to provide with insight into the question of how good business strategies are developed, an old and still unresolved problem in strategic management. A quotation summarizes the research problem: *“how do managers create and develop strategy? This simple question seems to be fundamental for strategic management, but there are still surprisingly few answers in strategy research”* (Regnér, 2003, p. 57). Another quotation refers explicitly to the design of new businesses: *“the question of design of new businesses has received very little attention by management scholars and researchers”* (Van de Ven, Hudson, & Schroeder, 1984, p. 87). Mintzberg (1973, p. 44) also refers to the lack of a solution to the research problem: *“how do organizations make important decisions and link them together to form strategies? So far, we have little systematic evidence about this important process, known in business as strategy-making.”* Therefore, similarly to product development, business crafting is still largely a “black box” (S. L. Brown & Eisenhardt, 1995).

Wal-Mart, Amazon, Dell, Southwest Airlines, et cetera, are admired companies with superior business models, but little is known about how their strategies were made.

In Markides (1999b, p. 6) words, *“we are all experts after the fact in identifying companies with superior strategies but have little to say about how these strategies were created in the first place or how other companies could develop similarly innovative strategies.”* Similarly, Hamel (1998, p. 10) states that: *“everyone knows a strategy when they see one. We all recognize a great strategy after the fact.”*

Strategies may be developed through formal analysis, intuition, and trial-and-error; and even may be the result of pure luck. However, we need a theory of strategy creation (Hamel, 1998) to answer the question of whether companies choose their strategy through a rational thinking process or whether strategy “emerges” through a process of experimentation.

Even if strategy had a element of serendipity to it, as Hamel (1998) points out, we should know how we can make serendipity happen.

The research problem will be addressed using a business model approach. We expect this particular approach to be the main novelty of our contribution. While there are many contributions to the research problem of how strategies are developed, few if any consider the problem from the perspective of the business model construct.

Many of the authors coincide to point out that a business model is the way companies do business, or the way they make money, or the way they create value for customers and capture a portion of it thanks to their offerings.

From the references we have compiled we will focus on the definition by Casadesus-Masanell, & Ricart (2007, p. 3) for whom *“a business model consists of: (i) the set of choices and (ii) the set of consequences derived from those choices.”* These authors also propose a system to represent graphically the sets of choices and consequences of a particular business model through labels, boxes and arrows. We will use their system to represent the business models of the companies studied.

1.2. RESEARCH QUESTIONS

Specifically we will try to answer two questions: (i) **how** do entrepreneurs and companies create and design new business models and (ii) **why** do they do that.

The first research question refers to whether entrepreneurs and existing firms use formal analysis to develop good business strategies and, hence, to craft good and superior business models or they basically rely on the learning from trial-and-error experimentation.

The second research question refers to the triggers of business model innovation. While in the case of entrepreneurs it seems clear that the trigger is the desire to commercially exploit a business opportunity, in the case of existing firms we will hypothesize that strategic innovation is a response to market erosion, commoditization, competitive convergence, and competitive destruction (Magretta, 2002).

Therefore, the research will be centred on the formal or informal processes that entrepreneurs and existing firms follow to envision and craft a new business model, and the reasons that compel them to carry such laborious task out.

1.3. RESEARCH STRATEGY

Since the purpose of the research is not to test any hypothesis but to confirm, challenge, or extend some theoretical propositions, we have chosen the case study as the research strategy because the questions to be answered are **how** and **why**, the type of questions for which the case study is the preferred research strategy (Yin, 2003).

The research is conducted mainly thanks to interviews with founders and managers of AUSA, Atrápalo.com, and Naturhouse. Although the interviews are open, a questionnaire was prepared to guide them and keep the focus on the research problem and the research questions. The questionnaire is based on the review of relevant literature. As Yin (2003, p. 9) points out, review of the literature is a means to an end and not an end in itself, and its purpose is *“to develop sharper and more insightful questions about the topic.”*

We have decided to conduct three case studies to widen the scope of inquiry and to follow a replication logic (Yin, 2003). The findings of each individual case will indicate whether a particular theoretical proposition applies or does not apply to the case; therefore, the theoretical propositions will be confirmed, challenged, or extended in view of the findings of the multiple-case study. On the other hand, we will try to replicate any significant finding from a case across the other two cases.

The firms have been chosen using some selection criteria: (i) having a unique or a novel business model; (ii) competing in a market with more players with different business models; and (iii) having experienced a steady growth in sales in the recent years.

1.4. EXPECTED OUTCOME AND CONTRIBUTION

The first outcome of the research ought to be an original contribution to the research problem of how good business strategies are developed. We expect the business model approach to be a significant source of novelty as far as the research problem is concerned.

In particular, the research should provide with insight into the research questions of: (i) **how** do entrepreneurs and companies create and design new business models and (ii) **why** do they do that.

Specifically, the research should attempt to conclude whether entrepreneurs and existing firms use formal analysis to develop good business strategies and, hence, to craft good and superior business models or they basically rely on the learning from trial-and-error experimentation.

If we concluded that good and superior business models are crafted using formal analysis, a second outcome should be the provision of tools to help entrepreneurs and firms create new business models. By contrast, if we concluded that they basically rely on the learning from trial-and-error experimentation, a second outcome should be the provision of procedures also useful for entrepreneurs and firms to design such experiments and maximize the lessons learned.

Finally, another outcome is the confirmation that firms carry out strategic innovation as a response to the competitive pressure.

The extent of our contribution will be assessed thanks to the comparison between the initial and the final conceptual framework, and the comparison between the initial and the ending theory.

2. INITIAL CONCEPTUAL FRAMEWORK

This chapter should be part of chapter **4. Theory Developed before the Research (Initial Theory)**, since the initial conceptual framework is one of the outcomes of the review of the literature of chapter **3. Review of the Literature**.

The conceptual frameworks of this chapter have been built putting together some constructs that have appeared reiteratively in the selected references of the review of the literature.

We have decided to present the initial conceptual framework after the introduction and before the review of the literature in order to facilitate the reading of the dissertation. However, the figures of this chapter have been represented following an ongoing and iterative process which is described and graphed in figure **3.1. Review of the Literature** in chapter **3. Review of the Literature** and in figure **4.1. Research Strategy** in chapter **4. Theory Developed before the Research (Initial Theory)**.

The initial conceptual framework will be compared with a final conceptual framework in chapter **10. Theory Developed throughout the Research (Ending Theory)**. The differences between the initial and the final conceptual framework will reflect the contribution of the research.

The conceptual frameworks have been built from a list of repeated constructs taken from the selected literature. The constructs are linked together through theoretical propositions that describe the relationships between them. The theoretical propositions related to business model creation (a business model... is developed solely through analysis and planning / is the sole result of learning through trial-and-error / is developed through analysis and planning and refined using the learning through trial-and-error) are the bulk of the research. They will be part of the theoretical propositions to be confirmed, challenged, or extended through the research.

Two visions of the initial conceptual framework are considered, a basic one with the main constructs, and an extended one with additional constructs. The basic conceptual framework is shown in three versions to clearly represent the theoretical propositions related to business model creation. The extended conceptual framework is used as a guide for chapter **3. Review of the Literature**.

2.1. BASIC CONCEPTUAL FRAMEWORK

The main constructs of the basic conceptual framework are:

- “Opportunity recognition”
- “Strategy making”
- “Sustained competitive advantage”
- “Formal strategy making”
- “Informal strategy making”
- “Analysis and planning”
- “Trial-and-error”
- “Learning”
- “Business model.”

The basic conceptual framework is shown in figure **2.1. Basic Conceptual Framework**. The conceptual framework must be read as follows:

“Opportunity recognition” requires “Strategy making” to create a “Sustained competitive advantage.” “Strategy making” can be “Formal strategy making” or “Informal strategy making.” “Analysis and planning” is the outcome of “Formal strategy making.” “Learning” through “Trial-and-error” is the outcome of “Informal strategy making.”

The same basic conceptual framework can be represented in three versions to accommodate the theoretical propositions related to business model creation. The “Business model” construct is then added to the previous framework. The three versions correspond to theoretical proposition 6 of chapter **6. Research Design**.

The conceptual framework of figure **2.2. Basic Conceptual Framework I** corresponds to rival proposition 1 of theoretical proposition 6 and must be read as follows:

“Opportunity recognition” requires “Strategy making” to create a “Sustained competitive advantage.” “Strategy making” can be “Formal strategy making” or “Informal strategy making.” “Analysis and planning” is the outcome of “Formal strategy making.” “Learning” through “Trial-and-error” is the outcome of “Informal strategy making.” **A “Business model” is developed solely through “Analysis and planning.”**

The conceptual framework of figure **2.3. Basic Conceptual Framework II** corresponds to rival proposition 2 of theoretical proposition 6 and must be read as follows:

“Opportunity recognition” requires “Strategy making” to create a “Sustained competitive advantage.” “Strategy making” can be “Formal strategy making” or “Informal strategy making.” “Analysis and planning” is the outcome of “Formal strategy making.” “Learning” through “Trial-and-error” is the outcome of “Informal strategy making.” **A “Business model” is the sole result of “Learning” through “Trial-and-error.”**

The conceptual framework of figure **2.4. Basic Conceptual Framework III** corresponds to theoretical proposition 6 and must be read as follows:

“Opportunity recognition” requires “Strategy making” to create a “Sustained competitive advantage.” “Strategy making” can be “Formal strategy making” or “Informal strategy making.” “Analysis and planning” is the outcome of “Formal strategy making.” “Learning” through “Trial-and-error” is the outcome of “Informal strategy making.” A **“Business model”** is developed through “Analysis and planning” and refined using the “Learning” through “Trial-and-error.”

2.2. EXTENDED CONCEPTUAL FRAMEWORK

We may enrich the basic conceptual framework by adding more constructs:

- “Entrepreneurship”
- “Absorptive capacity”
- “Competitive response”
- “Imitation”
- “Separated business unit”
- “First mover advantages”
- “Radical innovation”
- “Business model innovation”
- “Product innovation”
- “Product development”
- “Market creation”
- “Disruption or a discontinuity”
- “Dominant design”
- “Incumbents and new entrants.”

The extended conceptual framework is shown in figure 2.5. **Extended Conceptual Framework**. The conceptual framework must be read as follows:

“Entrepreneurship” originates “Opportunity recognition.” “Opportunity recognition” requires “Strategy making” to create a “Sustained competitive advantage.” “Strategy making” can be “Formal strategy making” or “Informal strategy making.” “Analysis and planning” is the outcome of “Formal strategy making.” “Learning” through “Trial-and-error” is the outcome of “Informal strategy making.” **“Absorptive capacity” is a pre-requisite for “Learning.”** A “Business model” is developed through “Analysis and planning” and refined using the “Learning” through “Trial-and-error.” A **“Business model” may face a “Competitive response,” must resist “Imitation,” may be articulated in a “Separated business unit,” and may enjoy “First mover advantages.”**

“Radical innovation” may be “Business model innovation” or “Product innovation”. “Business model innovation” consists of creating a “Business model.” “Product innovation” consists of launching new products through “Product development.” “Radical innovation” is about “Market creation.” “Radical innovation” triggers a “Disruption or a discontinuity” which ends up with a “Dominant design” in a competitive game of “Incumbents and new entrants.”

The extended conceptual framework is used as a guide for chapter 3. **Review of the Literature**. Definitions of the constructs can be found in section 4.3. **Constructs**.

Figure 2.1. Basic Conceptual Framework

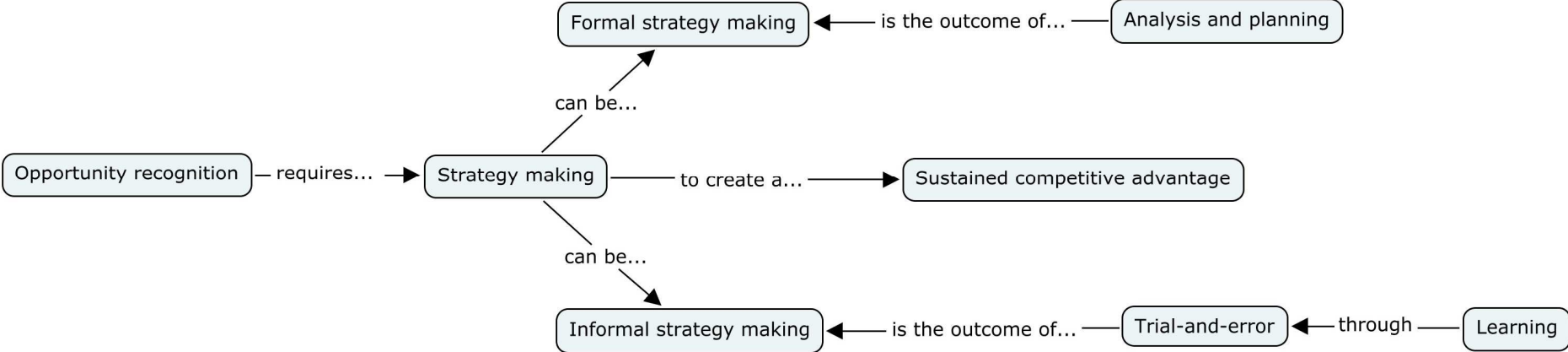


Figure 2.2. Basic Conceptual Framework I

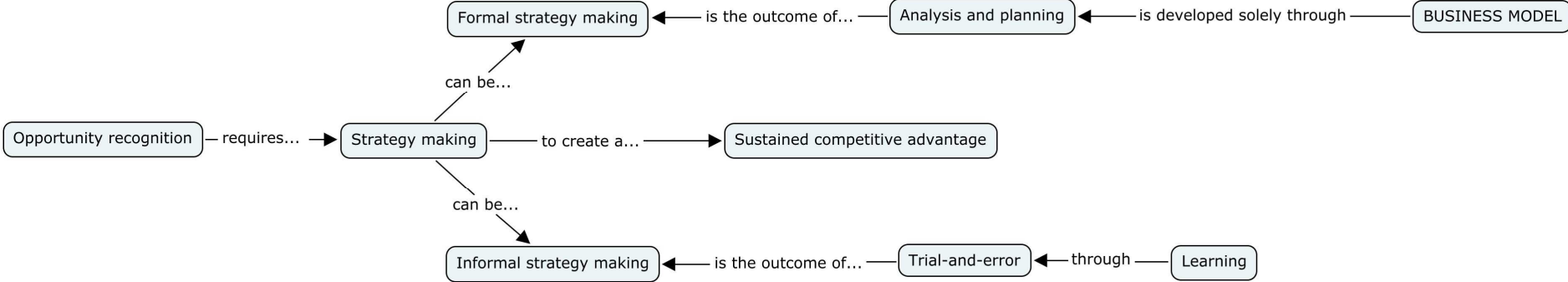


Figure 2.3. Basic Conceptual Framework II

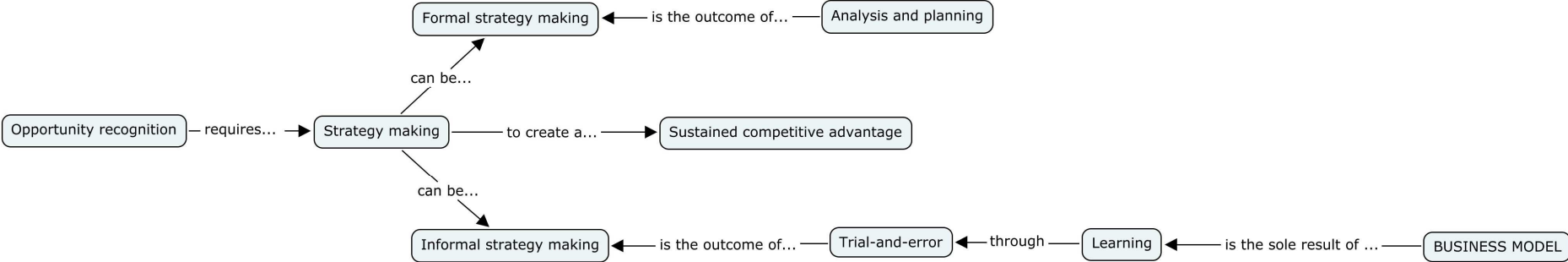


Figure 2.4. Basic Conceptual Framework III

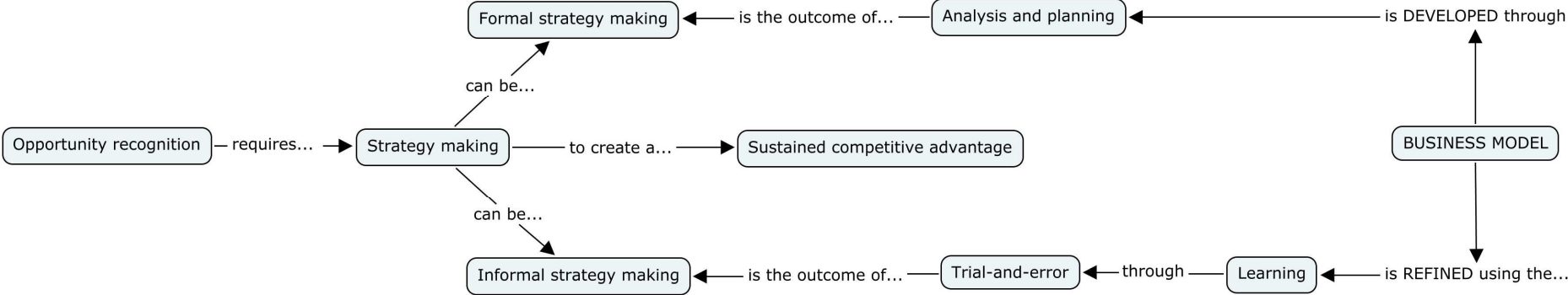
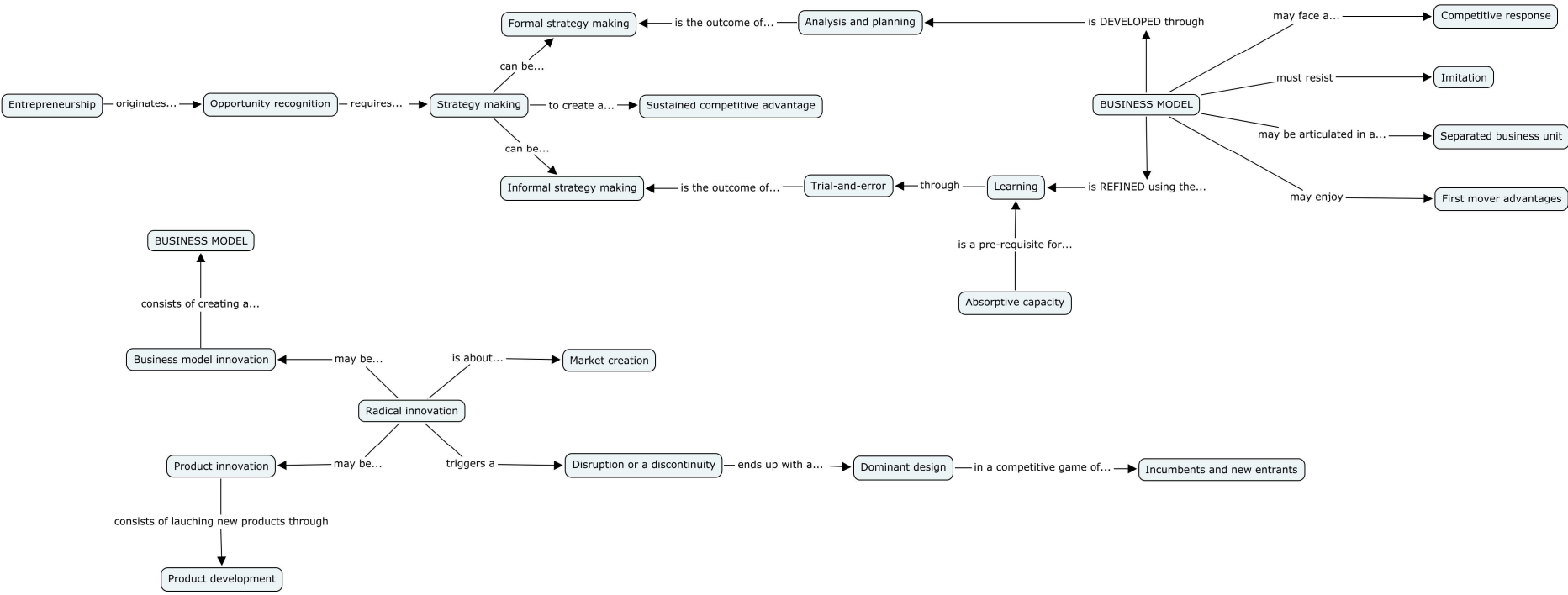


Figure 2.5. Extended Conceptual Framework



3. REVIEW OF THE LITERATURE

We started the review of the literature with some references related to the research problem and recommended by field experts. The first reference was Casadesus-Masanell & Ricart (2007), a reference which has been paramount for the entire research since we have followed their definition of business models as well as their business model system of graphic representation. Then other references about business creation and market creation followed (W. C. Kim & R. Mauborgne, 2005; McGrath & MacMillan, 2000).

The list of references for review was extended with further references taken from the bibliography section of the books and articles we were reading. This procedure ended up with a list of almost four hundred references related to the research problem.

The selection criterion used to accept or reject a reference was its ability to contribute to shed light into the research questions of the research problem, **how** and **why** do entrepreneurs and companies create and design new business models.

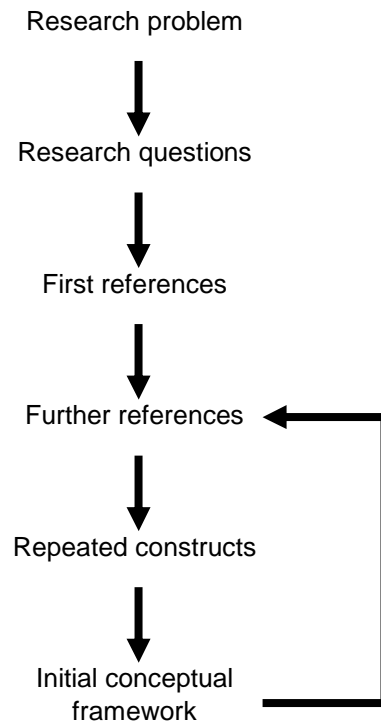
Some constructs appeared reiteratively in the selected references. From a list of repeated constructs we built the conceptual frameworks of chapter 2. **Initial Conceptual Framework** in which the constructs are linked together through theoretical propositions that describe the relationships between them. The theoretical propositions related to business model creation (a business model... is developed solely through analysis and planning / is the sole result of learning through trial-and-error / is developed through analysis and planning and refined using the learning through trial-and-error) are part of the theoretical propositions to be confirmed, challenged, or extended through the research.

Figure 3.1. **Review of the Literature** shows the ongoing and iterative nature of the process. In the selected references we found repeated constructs that formed a conceptual framework which guided additional searches for further literature.

The process ended up with the list of almost four hundred references and the extended conceptual framework of section 2.2. **Extended Conceptual Framework**. Chapter 3. **Review of the Literature** has been written using a matrix which is the result of crossing the selected references with the repeated constructs. Some of the selected references were discarded and some of the constructs were removed from the extended conceptual framework in order to narrow the scope of the research.

Chapter 3. **Review of the Literature** is ordered following the workflows of the extended conceptual framework, construct by construct. For each construct we include the relevant direct quotes from the literature, using the above mentioned matrix as a guide.

Figure 3.1. Review of the Literature



3.1. OPPORTUNITY RECOGNITION

The design of any novel business model starts with the recognition of a business opportunity. Identification and screening of opportunities is the first stage in business-building (MacMillan & McGrath, 2004). New business models require both the existence and the recognition of a business opportunity. A business opportunity will not result in a new business model unless an entrepreneur recognizes it. Missing a business opportunity because it has not been identified is a risk termed as “missing-the-boat risk” by Dickson & Giglierano (1986), the opposite of the “sinking-the-boat risk” of undertaking a venture that finally fails.

A business opportunity is the match between an unfulfilled market need and a solution that satisfies the need (O'Connor & Rice, 2001). Opportunities “*are created by earlier entrepreneurial errors which have resulted in shortages, surplus, misallocated resources*” (Kirzner, 1997, p. 70).

Who is more able to recognize opportunities and **how** opportunities are recognized are questions addressed by several authors but still unanswered.

To some authors, new business opportunities are recognized by operational-level managers instead of corporate strategy top managers (Burgelman, 1988). To other authors, “*extensive anecdotal evidence also suggests that CEOs, presidents, top management teams, chairmen of the board, and founders have originated many new ideas for innovation*” (Day, 1994, p. 169).

In regards to the functional position, Christensen, Johnson, & Rigby (2002) state that people in direct contact with markets and technologies are the more able to capture ideas for new growth businesses. Other authors consider that prior specific knowledge is a pre-requisite for opportunity discovery (Fiet, 2007; Shane, 2000).

The **who** question is tightly related to the **how** question. Christensen (2002) states that assessment of new opportunities relies on personal intuition and poses the example of Morita’s Sony which never did any market research since a market that does not exist cannot be analyzed. This view contrasts with Drucker’s (2002, p. 95) statement that “*business ideas come from methodologically analyzing seven areas of opportunity*”: unexpected occurrences, incongruities, process needs, industry and market change, demographic changes, changes in perception, and new knowledge.

O’Connor & Rice (2001, p. 103) also refer to **who** recognizes opportunities and **how** they are recognized by emphasizing that a cognitive leap is required for opportunity recognition: “*opportunity recognition for radical innovation is highly dependent on individual initiative and capacity, rather than routine practises and procedures of the firm. Opportunity recognizers are in positions in the organization that allow them to make their cognitive leap.*” They refer to the nature of opportunity recognition as “*a discontinuous act based on individual initiative rather than a process or practise of the firm*” (O’Connor & Rice, 2001, p. 98) and as a process that “*appears to be almost capricious and, to a large extent, dependent on chance events, supra-normally motivated individuals, and rich informal systems*” (O’Connor & Rice, 2001, p. 109).

The ability to recognize opportunities is also addressed by Fiet & Patel (2006, p. 20) who state that “*opportunities to make discoveries are circumscribed by time and space and depend on a knowledgeable entrepreneur being in the right place at the right time.*”

Opportunity recognition may be reactive or proactive. Gatherers, passive opportunity recognizers, are alert and ready to react to promising ideas with the potential to become opportunities. Hunters, active seekers of opportunities, search through the organization for ideas, asking questions to uncover latent ideas and articulate the opportunity in compelling terms to attract the attention of top management (Leifer, O'Connor, & Rice, 2001; O'Connor & Rice, 2001).

The reactive or proactive opportunity recognition notion is related to two contrasting theories about opportunity recognition that will be in-depth considered: (i) the alertness perspective and (ii) the constrained, systematic search. According to Fiet (2007), in the alertness perspective discoveries occur accidentally, success is determined stochastically, and deliberate search is impossible. Entrepreneurs constantly scan the whole world for opportunities, but this scanning process cannot be done systematically. Prior knowledge is irrelevant because discoveries occur accidentally. By contrast, in the constrained, systematic search the entrepreneur prior knowledge is a pre-requisite for opportunity recognition since discoveries depend on a fit between an entrepreneur's specific knowledge and a particular idea. Constrained, systematic search emulates how repeatedly successful entrepreneurs actually search and replaces the search for unknown ideas (effects) with the search of known information channels (means). In Fiet's (2007, p. 607) words, “*aspiring entrepreneurs are most competent to discover promising venture ideas that are related to their specific knowledge.*”

Alertness perspective

In the alertness perspective, discoveries can only be made through alertness or “notice without search” (Fiet, Nixon, Gupta, & Patel, 2006).

The alertness perspective is one of the foundations of the so-called Austrian approach. To Kirzner (1997, p. 70), business opportunities are created by earlier entrepreneurial errors and “*the daring, alert entrepreneur discovers these earlier errors.*”

Discovery involves surprise and systematic search is not possible. “*An opportunity for pure profit cannot, by its nature, be the object of systematic search. Systematic search can be undertaken for a piece of missing information, but only because the searcher is aware of the nature of what he does not know, and is aware with greater or lesser certainty of the way to find out the missing information*” (Kirzner, 1997, p. 71).

Shane (2000) considers a different perspective. Entrepreneurs discover opportunities without actively searching for them, through recognition rather than search, but they just recognize the opportunities related to the information they already possess and not other opportunities.

Constrained, systematic search

In the constrained, systematic search perspective, discoveries can only be made by systematic search constrained to a finite domain, the entrepreneur prior knowledge

(Fiet, Nixon, Gupta, & Patel, 2006). Prior experience circumscribes the domain or boundary conditions within which to search and is a pre-requisite for discovery (Fiet, 2007).

Fiet (2007) differentiates among general and specific knowledge. General knowledge can be codified and traded and is not a source of sustained competitive advantage since it can be possessed by competitors. Specific knowledge is a subset of the entrepreneur's prior experience, it is relevant to few if any opportunities, and it cannot be traded and thus confers a monopoly. Since knowledge derived from experience is idiosyncratic, entrepreneurs are not equally competent to discover a particular idea. Their competence depends on their experience-based specific knowledge.

Fiet, Nixon, Gupta, & Patel (2006) remark that specific information may just have value for a particular idea, cannot be reduced to rules and procedures, and hence cannot be traded like general information. Therefore, entrepreneurs can acquire it and monopolize and appropriate its value.

Fiet, Nixon, Gupta, & Patel (2006) also state that occupational experience is a source of prior knowledge and that entrepreneurs may be trained at increasing the frequency with which they consult their occupational experience.

Those authors (Fiet, 2007; Fiet, Nixon, Gupta, & Patel, 2006) refer to consideration sets and information channels. A consideration set is a group of information channels about particular promising ideas. *"Entrepreneurs can search most effectively within a consideration set because their specific knowledge prequalifies them to discover familiar or similar ideas, which they could not recognize if they were scanning outside of the domain where they are most knowledgeable"* (Fiet, 2007, p. 604). Information channels are sources of new, specific information. It is possible to enjoy a monopoly in time and space with regard to a particular information channel. Entrepreneurs use their prior knowledge, what they know, to identify and select channels. They can update the composition of their consideration sets as they search. They can also design a maximal search sequence. Information channels are considered low-cost sources of information, compared to random scanning or to not looking at all. Of course, this perspective is a low-cost perspective compared to the alert entrepreneur who must discover an idea that fits his prior knowledge without searching for it and has the entire world to search.

Despite Shane (2000) states that opportunities are discovered without actively searching for them, he also supports the notion that prior knowledge is a pre-requisite for discovery. The discovery of entrepreneurial opportunities depends on prior knowledge, and people will be more likely to discover opportunities in sectors that they know well. Individuals who have developed particular knowledge through education, personal events, and work experience –idiosyncratic prior knowledge- are better able to discover certain opportunities than others. Therefore, all individuals are not equally likely to recognize a given entrepreneurial opportunity. The prior distribution of knowledge in society influences who discovers these opportunities.

In sum, for opportunities to be discovered there must be a fit between an entrepreneur's prior experience and a venture opportunity. Prior experience must overlap with the knowledge domain of the venture opportunity (Fiet & Patel, 2006). Shane (2000) takes into consideration the mentioned fit or overlap and proposes to assess the knowledge

possessed by the entrepreneurs instead of identifying the knowledge needed to launch a new business.

The dependence of opportunity recognition on the entrepreneur's prior knowledge may also explain the Dickson & Giglierano (1986) "missing-the-boat risk." Promising opportunities may remain unnoticed and unexploited because the cognitive limits and the specialization of knowledge preclude entrepreneurs from identifying the complete set of entrepreneurial opportunities in a given technology.

If opportunities must fit the firm's strategy and capabilities, management must delineate the limits to seeking opportunities by employees (MacMillan & McGrath, 2004) in order to avoid random scanning or searching throughout the entire world (Fiet, 2007).

Opportunity recognition may also be the result of missed milestones or key assumptions that turn out to be wrong. They may provoke a discontinuity in the project development which may trigger a new occurrence of opportunity recognition if the managers have the capacity and willingness to make the cognitive leap (O'Connor & Rice, 2001).

According to Shane (2000) prior knowledge can be developed through a variety of roles (i.e. having experience as supplier, manufacturer, user, et cetera). He remarks three dimensions of prior knowledge that are relevant for the discovery of entrepreneurial opportunities: prior knowledge of markets, of ways to serve markets, and of customer problems.

Opportunities may be recognized or even created. Effectuation (Sarasvathy, 2001) involves more than the identification and pursuit of an opportunity. It leads to the very creation of the opportunity. Causation and effectuation will be in-depth considered in section **3.3. Strategy Making: Formal and Informal.**

Opportunity recognition may also be part of strategy-making. In Mintzberg's (1973) entrepreneurial mode of strategy-making organizations focus on opportunities and "proactively" search for new opportunities. Quinn (1979) refers to a necessary conversion of the planning-budgeting process from its primary role of resource rationing to one in which opportunity seeking becomes important too. He believes that the entrepreneurial process can be planned.

Opportunities also relate to disruptions in the sense that sometimes managers in established companies fail to recognize disruptions as opportunities because they see them developing but they incorrectly conclude that they are outside their market (Gilbert, 2003).

Finally, opportunity recognition is also related to options. As Bowman & Hurry (1993, p. 774) state, "*the organization's accumulated learning not only provides capabilities that give preferential access to opportunities, but it also influences sense making and the recognition of shadow options. Differential learning abilities across organizations will yield different rates of option recognition, and thus they will produce different investment patterns. (...). The recognition of shadow options is therefore the mechanism by which learning continuously translates into strategy choices.*"

Opportunity evaluation

Opportunities must be evaluated in view of four dimensions: strategic intent, competitive advantage building, knowledge capabilities building, and use of existing assets (MacMillan & McGrath, 2004).

Fiet & Patel (2006) also enumerate four criteria to evaluate ideas: fit, value, rarity, and inimitability. The value of an idea is inversely related to the threats posed by potential industry entrants, rivals, suppliers, buyers, and substitutes. Rarity and inimitability are qualities of the resources upon which an idea depends. Resources must be possessed by few firms (rarity) and only copied by potential imitators facing a great cost disadvantage (inimitable). Resources can be inimitable by being non-duplicable or non-substitutable.

3.2. SUSTAINED COMPETITIVE ADVANTAGE

Once an entrepreneurial opportunity has been recognized, strategy making should allow a business to achieve a sustained competitive advantage.

A competitive advantage is sustained if current and potential competitors cannot duplicate it (Barney, 1991) and when resists erosion by competitors' behavior because of barriers to imitation (Reed & DeFillippi, 1990). Achieving a sustained competitive advantage is crucial for business survival. Therefore, *"the fundamental question in the field of strategic management is how do firms achieve and sustain competitive advantage"* (Teece, Pisano, & Shuen, 1997, p. 1).

Having a superior business model rather than a superior product or service is a requisite for a sustainable competitive advantage. *"Just as important as having a superior product or service, a firm must build a better business model and a stronger network of value-delivery partners to get a sustainable competitive advantage in the marketplace"* (Berggren & Nacher, 2001, p. 2).

Barney's (1991) resource-based view of the firm states that strategic resources are heterogeneously distributed across firms and immobile, and can be a source of sustained competitive advantage if they are valuable, rare, imperfectly imitable, and without strategically equivalent substitutes that are themselves either not rare or imitable. Firm resources are valuable if they exploit opportunities and/or neutralize threats, and can be imperfectly imitable if they have been obtained due to unique historical conditions, or if the link between the resources and a firm's sustained competitive advantage is causally ambiguous in the sense that the link is not understood and imitators do not know which resources they should imitate, or if the resource is socially complex.

The resource-based view of the firm relates with the four criteria enumerated by Fiet & Patel (2006) to evaluate ideas.

Causal ambiguity creates barriers to imitation. *"The most effective barriers to imitation are achieved when competitors do not comprehend the competencies on which the advantage is based"* (Reed & DeFillippi, 1990, p. 90). Links are casual ambiguous when competitors do not understand the causal relationships between actions and outcomes. A competitive advantage must be based on competencies that have causally ambiguous characteristics. Individually or in combination, tacitness, complexity, and specificity can generate causal ambiguity between firm's actions and outcomes. On the other hand, firms must reinvest in the factors that create ambiguity and hence barriers to imitation, because continued competition over time has a cumulative effect and barriers to imitation can eventually be overcome, a process called decay by the authors.

Distinctive competences and capabilities are considered a source of sustained competitive advantage if they are honed to a user need, unique, and difficult to imitate (Teece, Pisano, & Shuen, 1997). They must be built because they cannot be bought since there is not a market for them.

Capabilities must be distinctive and also dynamic. *"Dynamic capabilities are the ability to reconfigure, redirect, transform, and appropriately shape and integrate existing core competences with external resources and strategic complementary assets to meet the*

challenge of a time-pressured, rapidly changing Schumpeterian world of competition and imitation” (Teece, Pisano, & Shuen, 1997, p. 4).

In referring to firm resources that can be strategic substitutes, Barney (1991) wonders if a charismatic leader and a systematic, company-wide strategic planning process are substitutes for one another. The issue relates to the discussion about the nature –formal or informal- of strategy making to be addressed in section **3.3. Strategy Making: Formal and Informal**. Some authors (Pearce II, Freeman, & Robinson Jr, 1987) suggest that formal and informal strategy making are strategic substitutes and therefore informal processes are not a source of sustained competitive advantage as formal planning is highly imitable. However, *“others have argued that formal and informal strategy making are not substitutes for one another. (...). If these processes are not substitutes for one another, and if the conditions of rareness and imperfect imitability hold, informal strategy-making processes may be a source of sustained competitive advantage”* (Barney, 1991, pp. 113-114).

3.3. STRATEGY MAKING: FORMAL AND INFORMAL

What triggers an innovation?

Some authors refer to accidents, shocks, or crisis. Other authors consider whether the process of innovation is random or can be directed and managed.

Markides & Geroski (2005, p. 25) state that “*new technologies typically emerge in a serendipitous fashion.*” Christensen, Anthony, & Roth (2004) think that innovation is not a random process and follows distinct patterns that lead to predictable outcomes. Davila, Epstein, & Shelton (2005, pp. 119-120) point out that “*in small organizations, innovation usually happens as a natural occurrence through the insight, talent, and interaction of a small group of people. A single inventor or a group of collaborators may, for instance, launch a company with one robust idea. But as organizations expand, innovation does not happen anymore as a natural occurrence. (...). Innovation has to be managed, it does not just ‘happen’.*”

To Davila, Epstein, & Shelton (2005, p. 9) the outcome of innovation can be controlled. “*How you innovate determines what you innovate. (...). The results of innovation are not a lottery –it is not a matter of luck.*”

Foster & Kaplan (2001b, p. 185) refer to a survey in which managers had to respond to the question “how to innovate?” To some respondents, “*great innovations happen by accident. (...). Some individuals come across a great idea and they exploit it. You cannot manage for that. The best you can do is to put people in touch with one another and see what happens. In our business all innovation is incremental in any case.*”

Sometimes innovations emerge unexpectedly. As Davila, Epstein, & Shelton (2005, p. 187) comment in regards to the 3M’s story of the Post-it, an “*unexpected discovery*” may lead to an “*unanticipated innovation.*” Even some authors believe that: “*several successful businesses and even great companies have begun without any conscious initial intention on the part of the founders*” (Saravathy, 2001, p. 247).

Indirectly referring to strategy making and business model innovation, Kim & Mauborgne (2005) ask themselves if there is a systematic approach to get out of the red ocean and create blue oceans. They attempt to provide practical guidance on how to create blue oceans. They believe that it is possible to build analytic frameworks to create them.

For some authors “*finding appropriate strategies is much more a creative process than one of calculation. Inspiration and imagination together with leadership are main features that strategists must possess*” (Casadesus-Masanell & Ricart, 2007, p. 39). However, other authors offer notions and even frameworks and tools to guide strategy making or business model innovation.

Strategy making

To C. C. Markides (1999a, p. 56) strategy is all about asking questions, generating alternatives, and making choices. “*The essence of strategy is selecting one position that a company can claim as its own. (...). Strategy involves making tough choices on three*

dimensions (...), and a company will be successful if it chooses a distinctive strategic position that differs from those of its competitors. The most common source of strategic failure is the inability to make clear and explicit choices on these three dimensions.”

The mentioned three dimensions are customers, products, and activities. Companies should monitor indicators of strategic rather than financial health, track competitors than operate in small niches or may break the rules of the game in the industry, encourage people close to the market to actively monitor and report changes in the market, prevent cultural and structural inertia by developing a culture that welcomes change and encourages experimentation and learning, and look at new entrants rather than at traditional rivals.

If strategy making consists of making strategic choices, a cite of Duncan & Weiss (1979, p. 13) relates choices with prior knowledge: *“effectiveness of organizations will be a function of its long term strategic choices (...). These choices are based on prior knowledge about the relationship between organizational actions and outcomes. Organizational effectiveness is thus determined by the quality of the knowledge base available to the organization for making the crucial strategic choices.”*

C. C. Markides (1999b, p. 7) proposes to understand the logic of successful strategies to learn how to design a good strategy, and also recommends to ask intelligent questions, explore possible answers, and experiment with potential solutions. *“Correctly formulating the questions is often more important than finding a solution. Thinking through an issue from various angles is often more productive than collecting and analyzing unlimited data. And actually experimenting with new ideas is often more critical than scientific analysis and discussion.”*

Formal and informal strategy making

In this epigraph we will try to shed light into the question of *“... whether a company can choose its strategy through a rational thinking process or whether the strategy really “emerges” through a process of experimentation”* (C. C. Markides, 1999b, p. 6).

Firms choose their strategy through formal strategic planning but also through informal, emergent, and autonomous processes (Barney, 1991). Informal strategy making refers to Leontiades & Tezel (1980), emergent refers to the contributions of Mintzberg, and autonomous refers to the contributions of Burgelman.

A firm’s strategy illustrates the extent of alignment between external environment and internal structure and processes, and may be the result of a formal planning system or the result of *“countless strategic decisions that have been made, one at a time, over a period of years”* (Fredrickson & Mitchell, 1984, p. 400), a notion that relates to Mintzberg’s emergent strategy and Burgelman’s autonomous strategic behavior.

The formality of planning may be assessed *“by measuring the extensiveness of a firm’s planning process and formal written documents”* and companies may be classified in categories *“using a formality-of-planning continuum, ranging from nonplanners to formal planners”* (Pearce Ii, Freeman, & Robinson Jr, 1987, p. 659). Formal strategic planning uses systematic procedures, detailed formats, and rigid calendars, quantifies

everything, and determines the mission, the objectives, the strategies, and the policies of acquisition and allocation of resources to achieve the organization goals.

The continuum of formal-informal strategy making is also pointed out by Mintzberg & McHugh (1985) when they refer to deliberate and emergent strategies as the end points of a continuum. Fredrickson & Mitchell (1984) classify firms as formal and informal planners.

To some authors using formal or informal strategy making depends on the settings or on the stages of the business life cycle. To C. C. Markides (1999b) strategy depends on the circumstances of the firm which in turn are determined by its stage of evolution. Foster & Kaplan (2001a, p. 44) state that immediately after the founding of a company, *“when passion rules, information and analysis are ignored in the name of vision: “We know the right answer; we do not need analysis.”* Barney (1991, pp. 113-114) refers to the authors that argue that formal and informal strategy making are not substitutes for one another and states that *“formal processes are effective in some settings and ineffective in others, that informal processes are effective where formal processes are not and are ineffective when formal processes are effective.”* Regnér (2003, p. 78) relates the type of strategy making with the business stage of development: *“while traditional exploitation focused and deductive practises are important for refining and improving prevailing strategy, exploratory and inductive everyday activities seem crucial for strategy creation and development.”* He also relates the type of strategy making with the settings (periphery and centre). Strategy making in the periphery –subsidiaries, projects, business units- is inductive, externally focused, explorative in the sense that involve trial-and-error, informal contacts and noticing, experiments, and heuristics, and establishes new strategic knowledge based on inferences from these activities. It focuses on new technologies and markets. By contrast, strategy making in the centre –corporate and divisional management, board of directors- is deductive, industry focused, exploitative in the sense that involve planning, analysis, formal reports, forecasts, and intelligence, and standard routines, and adapts and perfects the existing strategic knowledge. Activities are based on current technologies and markets.

Using formal or informal strategy making may also depend on the nature of innovations. Companies have systematic processes to identify and track sustaining innovations, because they are important to serve their current customers, but do not have systematic processes to identify and track disruptive innovations (Bower & Christensen, 1995). *“Capturing ideas for new growth businesses from people in direct contact with markets and technologies is far more productive than relying on analyst-laden business-development departments. (...). While the process that molds ideas into sustaining innovations can be deliberate, data-driven and analytical, the process for shaping disruptive businesses must be driven by intuitive understanding of the possibilities”* (C. M. Christensen, Johnson, & Rigby, 2002, p. 30).

Van de Ven, Hudson, & Schroeder (1984, p. 104) compared the planning practices of entrepreneurs and concluded that: *“entrepreneurs of the more successful firms appeared to spend less time writing formal business plans than did their lower performing counterparts. Instead, the former developed brief, but clear, outlines of their business plans and sent them to more people for review and comment.”* Successful entrepreneurs intuitively followed the steps but gave little attention to formally and carefully documenting them. They involved potential customers and consultants. Innovations

began on a small scale, were implemented incrementally, and expanded on the basis of previous success to learn from mistakes and make the necessary adjustments in the business plan, and had a single person in command.

Despite they apply them to product development rather than to business development, Brown & Eisenhardt (1995) refer to two problem-solving models, one based on extensive planning and overlapped development stages that is relevant for stable products in mature settings and the other based on experiential or improvisational product design that is relevant for less predictable products in uncertain settings, such as in rapidly changing industries. The latter consists of frequent iterations, extensive testing, and short milestones. Therefore, the problem-solving strategy depends to them on the product and the setting. *“Under conditions of uncertainty it is not helpful to plan. Rather, maintaining flexibility and learning quickly through improvisation and experience yield effective process performance”* (S. L. Brown & Eisenhardt, 1995, p. 369).

Hart (1992) defines five strategy-making processes which can be combined sequentially or simultaneously: command, symbolic, rational, transactive, and generative.

In the command mode, strategies are deliberate, fully formed, and ready to be implemented. A strong individual leader centralizes strategy making, has a comprehensive business plan, and imposes it on the organization. It is appropriate for small organizations in simple environments.

In the symbolic mode, top management creates a vision and a mission which serve as a guide to individual behavior. Symbols and metaphors are used. The mission is translated into targets. Control systems are implicit and based on shared values. It is appropriate for dynamic and high-velocity environments since top management can not develop detailed plans or formal systems.

In the rational mode, to be further developed in the next epigraph, *“strategy making is seen as the execution of plans produced through comprehensive analysis and systematic procedure. Top managers determine strategic direction through a formal planning process that entails extensive data collection and highly structured organizational member involvement”* (Hart, 1992, p. 334). Strategy formulation uses formal analysis such as environmental scanning, portfolio analysis, industry and competitive analysis, et cetera. As many data as possible is considered to formulate an explicit business strategy. The process is institutionalized through formal strategic planning in written strategic and operating plans. It is comprehensive in scope. Subordinates are held accountable for performance benchmarked against plan. Behavior is induced by structure and formal systems. It is appropriate for large organizations in stable or predictable environments and firms that are defending established strategic positions rather than seeking to innovate.

In the transactive mode, strategy making is based on interaction with key stakeholders and learning from feedback. It is appropriate for complex environments.

In the generative mode, strategy is made via intrapreneurship through autonomous behavior by employees. Top management just selects and nurture proposals emerged

from below. It is appropriate for firms in turbulent –dynamic and complex- environments where prospecting is required.

Haspeslagh (1982) believes that sophisticated strategic planning is not helpful for managing new business development. Dickson & Giglierano (1986) state that more planning –analyse the environment, screen the strategy, and test the market- reduces the “sinking-the-boat risk” but increases “the missing-the-boat risk.”

O’Connor & Rice (2001, p. 99) studied several large established firms and concluded that “*none have implemented a sustained, comprehensive, and disciplined approach.*”

Busenitz & Barney (1994, p. 86) state that entrepreneurs utilize biases –subjective and/or predisposed opinions- and heuristics –“informal rules-of-thumb” or intuitive guidelines- in strategic decision making more than managers in large organizations. “*They are more familiar with comprehensive decision making patterns due to their training and the emergence of more rational decision making within their organizations.*”

Rationality and comprehensiveness

Rationality is the extent to which the strategic process is comprehensive, exhaustive, and analytical in approach (Hart, 1992). Comprehensiveness, a measure of rationality, is “*the extent to which organizations attempt to be exhaustive or inclusive in making and integrating strategic decisions. (...). A comprehensive process is characterized by: (1) the thorough canvassing of a wide range of alternatives; (2) surveying a full range of objectives; (3) carefully weighing the costs and risks of various consequences; (4) intensively searching for information to evaluate alternative actions; (5) objectively evaluating information, or expert judgement regarding alternative actions; (6) re-examining the positive and negative consequences of all known alternatives; and (7) making detailed plans, including the explicit consideration of contingencies, for implementing the chosen action*” (Fredrickson & Mitchell, 1984, pp. 401-402).

To Hart (1992, p. 328) “*rationality implies that a decision maker (a) considers all available alternatives, (b) identifies and evaluates all of the consequences which would follow from the adoption of each alternative, and (c) selects the alternative that would be preferable in terms of the most valued ends. The rational model of decision making applied to strategy suggests systematic environment analysis, assessment of internal strengths and weaknesses, explicit goal setting, evaluation of alternative courses of action, and the development of a comprehensive plan to achieve the goals.*”

Fredrickson & Mitchell (1984) refer to models of strategy formulation of two types: synoptic and incremental. Synoptic models emphasize comprehensiveness in making and integrating strategic decisions. The strategic process in synoptic models is “*a highly rational, proactive process that involves activities such as establishing goals, monitoring the environment, assessing internal capabilities, searching for and evaluating alternative actions, and developing an integrated plan to achieve the goals*” (Fredrickson & Mitchell, 1984, p. 401). In synoptic models goals are identified before and independent of the analysis of alternatives. When making individual decisions, identification and selection of goals and generation and evaluation of alternatives is exhaustive. Decisions are integrated to insure that they reinforce one another. They

conclude that synoptic (incremental) models are appropriate for organizations in stable (unstable) environments and hypothesize that there will be a positive (negative) relationship between the comprehensiveness of strategic decisions processes and performance in a stable (unstable) environment.

Firms successful in unstable environments make decisions quickly and without trying to integrate them into some overall strategy. In firms with a comprehensive process, decision making is the major part of each manager's job and it is an analytical activity. Individual's search for information is unbiased by experience and functional orientation. In firms with non-comprehensive process, decision making is "*a highly judgmental activity that rests primarily in the hands of a dominant manager. As such, analysis is replaced by informal discussion, and search behavior is heavily biased by experience and orientation. (...). Integration is likely to take place only in the mind of the dominant manager*" (Fredrickson, 1984, p. 460).

Referring to the rational plan problem-solving model, Brown & Eisenhardt (1995, p. 348) state that "*successful product development is the result of (a) careful planning of a superior product for an attractive market and (b) the execution of that plan by a competent and well-coordinated cross-functional team that operates with (c) the blessings of a senior management. Simply put, a product that is well planned, implemented, and appropriately supported will be a success.*"

Mintzberg's emergent strategy

To Mintzberg (1994, p. 111) "*formal procedures will never be able to forecast discontinuities, (...), or create novel strategies.*"

Mintzberg (1978, p. 935) defines strategy as "*a pattern in a stream of decisions. When a sequence of decisions in some area exhibits a consistency over time, a strategy will be considered to have formed.*"

Strategies may be intended or "*may form gradually, perhaps unintentionally, as he [the strategy-maker] makes his decisions one by one*" (Mintzberg, 1978, p. 935). He differentiates three types of strategies: deliberate ("*intended strategies that get realized*"); unrealized ("*intended strategies that do not get realized*"), and emergent ("*realized strategies that were never intended*") (Mintzberg, 1978, p. 945). Deliberate strategies have been defined as explicit, developed consciously and purposefully, and made in advance of the making of decisions. As said before, deliberate –intentions realized- and emergent strategies –patterns realized despite or in absence of intentions- are the end points of a continuum (Mintzberg & McHugh, 1985). Those end points of this continuum are problematic since purely deliberate strategy making precludes learning while purely emergent strategy making precludes control (Mintzberg, 1987).

Mintzberg (1973) refers to three modes of strategy-making: the entrepreneurial, the adaptive, and the planning modes. In the entrepreneurial mode, one strong leader takes bold, risky actions on behalf of his organization. Strategy is guided by the entrepreneur's vision and plan of attack and moves forward in dramatic leaps. Organizations focus on opportunities and problems are secondary. In the adaptive mode, the organization adapts in small, disjointed steps to a difficult environment. Decisions are made in incremental steps. Strategy-making is characterized by the "reactive"

solution to existing problems rather than the “proactive” search for new opportunities. In the planning mode, formal analysis is used to plan explicit, integrated strategies for the future.

To Mintzberg (1978) strategy formation is the interplay between a dynamic environment, an organizational operating system, or bureaucracy, and a leadership. In the entrepreneurial mode there is interplay between a leader and an environment in the sense that the former reacts proactively to changes in the latter, and structure follows strategy. In the planning mode interplay is between a formalized structure and a constraining environment, and strategy follows both structure and environment (Mintzberg & Waters, 1982).

While deliberate strategies are compatible with machine bureaucracies and emergent strategies with adhocracies or with machine bureaucracies when they have to develop new strategies (Mintzberg & McHugh, 1985), the entrepreneurial mode is suitable for small and/or young organizations with low sunk costs and little to lose by acting boldly and the planning mode is suitable for organizations large enough to afford the costs of formal analysis, with operational goals and a predictable and stable environment (Mintzberg, 1973).

Mintzberg & McHugh (1985) describe strategy formation in an adhocracy using a metaphor they term the “grass-roots model” of strategy formation.

Mintzberg (1978) differentiates between strategy formation –a stream of decisions configures a pattern- and strategy formulation –there is an explicit strategy-making process. He also differentiates between strategy formulation and strategic programming, which justifies, articulates, elaborates, quantifies, and makes public a given strategy. It plans the consequences of a strategy and is useful to coordinate, control, and communicate, both internally and externally (Mintzberg, 1994; Mintzberg & Waters, 1982). He concludes that “*companies plan when they have intended strategies, not in order to get them*” (Mintzberg & Waters, 1982, p. 498).

Mintzberg (1978) also refers to the dichotomy between strategy formulation and strategy implementation which ignores the learning that follows the conception of an intended strategy, and is based in two assumptions: the formulator is fully informed and no reformulation will be needed during implementation. “*The absence of either condition should lead to a collapse of the formulation-implementation dichotomy, and the use of the adaptive mode instead of the planning one. Strategy formation then becomes a learning process, whereby so-called implementation feeds back to formulation and intentions get modified en route, resulting in an emergent strategy*” (Mintzberg, 1978, p. 946).

Burgelman’s autonomous strategic behavior

Burgelman (1983b, p. 62) cites Chandler who refers to strategic initiatives unrelated to the traditional business of the firm that are not the result of an a priori clearly formulated corporate strategy, but “*emerged through a somewhat haphazard approach.*”

Burgelman's (1983b) model differentiates among induced and autonomous strategic behavior.

Burgelman focuses the attention on internal corporate venturing (ICV), the development of new businesses in established companies. He concludes that strategy making of new ventures is a social learning process as the organization takes advantage of the individual learning generated by the autonomous actions of operational-level managers and that: *"new ventures in large, established firms often emerge in an unplanned, serendipitous fashion as operational-level managers search for new business concepts"* (Burgelman, 1988, p. 79). This finding is refined in another contribution (Burgelman, 1984b, p. 3): *"new ventures in large, diversified firms emerge in unplanned, serendipitous fashion. It seems there exists a continuous, broadly based stream of autonomous opportunistic search for new business concepts on the part of entrepreneurial operational level participants."*

Autonomous strategic behavior cannot be planned, emerges spontaneously, falls outside the current concept of strategy, and is accepted by the organization and integrated in the concept of strategy through the process of strategic context (Burgelman, 1983a). Through strategic context top management rationalize, retroactively, the initiatives of autonomous strategic behavior and amends the concept of strategy to accommodate them (Burgelman, 1983b). Further entrepreneurial activities at the operational level are encouraged by the activation of the strategic context (Burgelman, 1983c). Therefore, new ventures are incorporated into the firm's formal concept of strategy through retroactive rationalizing, and become institutionalized and part of the strategic planning system (Burgelman, 1988).

Strategic context is also useful to *"... demonstrate that what conventional corporate wisdom had classified as impossible was, in fact, possible"* (Burgelman, 1983c, p. 232).

Corporate entrepreneurship and radical innovation take place through the autonomous strategic behavior loop of Burgelman's model. Incremental innovation takes place in the induced strategic behavior loop. Diversity results from autonomous strategic behavior at the operational level. Order results from imposing a concept of strategy on the organization. Through strategic context diversity is transformed into order. *"Whereas order in strategy can be achieved through planning and structuring, diversity in strategy depends on experimentation-and-selection"* (Burgelman, 1983a, pp. 1349-1350). C. C. Markides (1999a, p. 62) also refers to diversity building as a means for strategy making: *"in the face of uncertainty, the best a firm can do is build internal variety (even at the expense of efficiency), and let the market mechanism determine what wins."*

Burgelman (1983b, p. 65) explains the entrepreneurial process in detail: *"large, resource-rich firms are likely to possess a reservoir of entrepreneurial potential at operational level that will express itself in autonomous strategic initiatives. (...). Entrepreneurial participants, at the product/market level, conceive new businesses, opportunities, engage in project championing efforts to mobilize corporate resources for these new opportunities, and perform strategic forcing efforts to create momentum for their further development. Middle level managers attempt to formulate broader strategies for areas of new business activity and try to convince top management to support them. (...) Such autonomous strategic initiatives attempt to escape the selective*

effects of the current structural context. (...). They lead to a redefinition of the corporation's relevant environment and provide with the raw material for strategic renewal. They precede changes in corporate strategy."

Structural context refers to the organizational and administrative mechanisms put in place by corporate management to implement the current corporate strategy. It operates as a selection mechanism on the strategic behavior of operational and middle-level managers. Strategic context refers to the process through which the current corporate strategy is extended to accommodate the ICV activities. *"The selection mechanism can be circumvented by activating, through organizational championing, the strategic context, which allows successful ICV projects to become retroactively rationalized by corporate management. (...). The key to understanding the activation of this process is that corporate management knows when the current strategy is no longer entirely adequate but does not know how it should be changed until, through the selection of autonomous strategic initiatives from below, it is apparent which new businesses can become part of the business portfolio"* (Burgelman, 1983c, pp. 229-230-238).

Top management's critical contribution is strategic recognition rather than planning, and letting middle managers to question the current concept of strategy (Burgelman, 1983a). Top management should establish mechanisms for capturing and leveraging the learning from experiments conducted by operational-level managers (Burgelman, 1988).

Burgelman (1983c, pp. 233-242) conducted a field study of the ICV process in a diversified firm and concluded that: *"although formal screening models existed and the participants in all cases were very able in quantitative analysis, there was little reliance on formal analytical techniques in the ICV process. (...). These strategic choice processes, when exercised in radical innovation, take on the form of experimentation and selection, rather than strategic planning."*

Strategy-making of new ventures evolves as a social learning process in which knowledge about what to do is extracted from successfully doing. *"To conceptualize strategy-making in the emergent state, an experimentation and selection framework would seem to be more appropriate than a strategic planning framework. "Experimentation" refers to the autonomous strategic initiatives of operational level managers"* (Burgelman, 1984b, p. 4).

Brown & Eisenhardt refer to Burgelman's autonomous strategic behavior when they describe product development as disciplined problem solving: *"successful product development is seen as a balancing act between relatively autonomous problem solving by the project team, and the discipline of a heavyweight leader, strong management, and an overarching product vision"* (S. L. Brown & Eisenhardt, 1995, p. 359).

Causation and effectuation

Causation and effectuation are constructs developed by Sarasvathy (2001).

Causation consists of choosing between means to create a particular effect, and effectuation consists of choosing between many possible effects using a particular set of means. A decision process involving causation consists of a given goal to be achieved, a set of alternative means, constraints on possible means, and criteria for selecting between

the means. A decision process involving effectuation consists of a given set of means, a set of effects, constraints on possible effects, and criteria for selecting between the effects.

In causation processes selection criteria is based on expected return, it is effect dependent, it exploits knowledge, it focus on the predictable aspects of uncertain future, its underlying logic is “to the extent we can predict future, we can control it”, and its outcome is market share in existent markets through competitive strategies. In effectuation processes selection criteria is based on affordable loss or acceptable risk, it is actor dependent, it exploits contingencies, it focus on the controllable aspects of an unpredictable future, its underlying logic is “to the extent we can control the future, we do not need to predict it”, and its outcome is new market creation.

Dealing with a predictable future requires systematic information gathering and analysis of that information. Dealing with an unpredictable future requires gather information through experimental and iterative learning techniques.

Effectuation does not involve planning and prediction. *“Successful firms, in their early stages, are more likely to have focused on forming alliances and partnerships than on other types of competitive strategies, such as sophisticated market research and competitive analyses, long-term planning and forecasting, and formal management practises in recruitment and training of employees”* (Sarasvathy, 2001, p. 261).

Effectuation relies on precommitments to reduce uncertainties. Firms created through effectuation processes fail early and at lower levels of investment. Effectuators *“are less likely to use traditional types of market research, such as carefully designed surveys and test marketing; instead, they are likely to dive straight into seat-of-the-pants marketing/selling activities and alliances. (...) are less likely to use long-term planning or net present value (NPV) analyses; instead, they are likely to be focused on the short term and, at most, to use informal versions of real options: (...) are more likely to build strong participatory cultures, rather than hierarchical, procedures-based ones”* (Sarasvathy, 2001, p. 261).

3.4. ANALYSIS AND PLANNING

In section **3.3. Strategy Making: Formal and Informal** we have outlined the difference between formal and informal strategy making. Formal strategy making consists of setting explicit goals and establishing a detailed plan to achieve them through external and internal analysis and assessments, and after considering all the alternatives and their consequences. By contrast, informal strategy making consists of forming strategy through the learning of trial-and-error.

In formal strategy making, firms conduct analysis to produce plans to achieve goals.

Planning is about breaking down a goal into steps, formalizing those steps in such a way they can be implemented automatically, and articulating the anticipated consequences of each step (Mintzberg, 1994). Formal planning consists of systematically attaining quantified goals. External and internal opportunities and problems and company strengths and weaknesses are evaluated. Costs and benefits of competing proposals are assessed. It involves both search of opportunities and solution of problems. Strategy is designed at one point in time in a comprehensive process since all decisions are interrelated. There is the belief that formal analysis can provide an understanding of the environment sufficient to influence it (Mintzberg, 1973).

In contrast to a common belief, strategic planning is not only appropriate for large firms. It can be useful for any kind of firm, since it *“promotes long-range thinking, reduces the focus on operational details, and provides a structured means for identifying and evaluating strategic alternatives, all of which improve firm performance”* (Schwenk & Shrader, 1993, p. 60).

Van de Ven, Hudson, and Schroeder (1984) refer to planning in entrepreneurship. The planning stage covers from the actual decision to start a company to the beginning of operation. In the gestation stage, founders obtain skills and experience that prepared them for starting a company. Planning consists of four steps: problem exploration, knowledge exploration, business plan development, and company startup. Relevant information about planning activities is: hours spent in planning, degree of search in assessing market and competition, degree of involvement of potential customers and consultants, whether the business plan is formally documented and how detailed it is, people who has received a copy for review...

Analytic tools and frameworks

The analysis and planning of formal strategy making is conducted using analytic tools and frameworks, techniques that facilitate analysis and thinking and that usually end up in graphic representations (canvasses, matrixes, grids, et cetera).

Strategic planning tools are aimed at suppressing improvisation (Moorman & Miner, 1998b).

There are tools to promote strategic thinking (Foster & Kaplan, 2001a, 2001b), tools to make an entire strategy (W. C. Kim & R. Mauborgne, 2005; Kim & Mauborgne, 2000; W. C. Kim & R. e. Mauborgne, 2005; C. Markides, 1997, 1998), and tools to create new

offerings (Berggren & Nacher, 2001; MacMillan & McGrath, 1996, 1997; McGrath & MacMillan, 2000, 2005; von Hippel, 1986).

One of the analysis and planning tools is market research. But Bower & Christensen (1995, p. 50) believe that market research is not appropriate for disruptive innovations since no concrete market exists. Information about emerging markets can be created only *“by experimenting rapidly, iteratively, and inexpensively with both the product and the market.”* To Busenitz & Barney (1994, p. 86) *“in bringing an untested product to market, reliable market research is generally very limited, since products so often deal with previously nonexistent markets.”* In addition, *“the customers often don’t know what they want until they have experienced an offering”* (MacMillan & McGrath, 2004, p. 21). To Christensen, Raynor, and Anthony (2003, p. 5) *“markets that do not exist cannot be analyzed”* and developing disruptive innovations has more to do with pattern recognition than with data-driven market analysis. They also refer to discovery-driven planning as a way to create a plan to test assumptions and make an intuitive process be rigorous.

Conventional market research is appropriate to identify opportunities for incremental innovation which are built on known markets and technologies (Leifer, O'Connor, & Rice, 2001).

Traditional market research focuses on users at the centre of the target market and obtains only information about needs. Lilien, Morrison, Searls, Sonnack, & Von Hippel (2002) introduce the notion of lead users. Lead user idea-generation methods focus on lead users both within the target market and in advanced markets with similar needs but in a more extreme form and obtain information about not only needs but ideas for solutions leading to new products.

In regards to developing an understanding of the market for discontinuous innovations – for markets that do not yet exist for products that have not yet been conceived- either through conventional techniques or through management by seat-on-the-pants and trial-and-error, Lynn, Morone, & Paulson (1996, pp. 11-12) conclude that: *“analytic methods for evaluating new product opportunities appear to be much more appropriate for incremental than for discontinuous innovation.”* They studied some cases and none of the conventional market research techniques employed –analysis matching product attributes with market applications- had a significant impact on the development of the innovations. The companies developed their products by introducing prototypes into a variety of market segments and learning from those experiments.

Krishnan & Ulrich (2001, p. 10) refer to planning in product development: *“in structured development environments, product planning often results in mission statements for projects and in a product plan or roadmap, usually a diagram illustrating the timing of planned projects.”*

To accelerate product development Eisenhardt & Tabrizi (1995) differentiate among two strategies: compression and experiential. Compression and experiential strategies accelerate product development. Compression strategy is relevant for product development with a predictable path through well-known markets and technologies. Product development can be compressed by spending more time in planning, overlapping successive steps, involving suppliers, and rewarding developers for

attaining the schedule. Experiential strategy consists of increasing the number of design iterations, increasing the testing, establishing frequent milestones, and appointing powerful project leaders and multifunctional teams. Experiential strategy is relevant when the path is more uncertain. They conclude that “*extensive planning simply wastes time, especially in high-velocity industries. (...) It may be faster to probe, test, iterate, and experience than to plan*” (Eisenhardt & Tabrizi, 1995, p. 106).

Foster & Kaplan (2001b) divide the creative process into two parts, divergent thinking and convergent thinking. The former consists of three phases: search (observation), incubation (reflection), and collision (conversation), while the latter consists of two steps: decision and trial. Divergent thinking is also called “zooming-out” thinking while convergent thinking is compared to “zooming-in” focus.

In most corporations there are three processes closely related to divergent thinking: strategic planning, research and development, and corporate venture capital. The authors think that they are not working well because they have not produced change within the corporations at the pace and scale of the capital markets. Strategic planning fails to identify major opportunities and to develop plans to capture them. “*It focuses on reanalysis of the existing businesses and the analysis of similarly sized competitors, rather than attempting to understand what is happening at the periphery of the business and how it might change. Often strategic planning has become a paper exercise, devoid of direct observation in the marketplace. (...) It has been reduced to a pure numbers exercise, rather than an exercise of thinking*” (Foster & Kaplan, 2001b, p. 212).

Mental models are a tool for strategy making and problem solving (Foster & Kaplan, 2001a). They allow management to solve problems but when they are out of sync with reality led them to poor decision making. They manifest themselves in corporate control systems.

Kim & Mauborgne (2000) propose three analytic tools: the buyer utility map, the price corridor of the mass, and the business model guide. The buyer utility map relates to the notion that product development should be a function of utility to customers rather than a function of technical possibilities, and it is a matrix formed crossing the six stages of the buyer experience cycle –purchase, delivery, use, supplements, maintenance, and disposal- and the six utility levels –environmental friendliness, fun and image, risk, convenience, simplicity, and customer productivity. They refer to three tactics: using a new utility level at the same stage, using the same utility lever in a new stage, and using a new utility lever in a new stage. In regards to pricing models, they explain that historically companies targeted novelty-seeking, price-insensitive customers and later dropped prices to achieve a high volume. Now companies must achieve a high volume very quickly due to the presence of network externalities. Prices must be chosen from the start to attract –and also to retain- as many customers as possible. Customers will remain loyal if they do not find a better alternative. The price corridor of the mass is the price bandwidth that captures the largest groups of customers. The price level within the corridor depends on the degree of legal protection of the product and on the company’s ownership of exclusive assets. They also refer to the need of challenging the industry’s standard pricing model.

Tools proposed by Kim & Mauborgne (2005, p. 108) are aimed to create blue oceans. *“Our central research question was whether there was a pattern by which blue oceans are created.”*

Kim & Mauborgne (2005) call Value Innovation the strategic logic followed by the creators of blue oceans. Value Innovation tries to break the value-cost trade-off. While conventionally companies can choose between differentiation and low cost, the creators of blue oceans pursue differentiation and low cost simultaneously. Instead of focusing on beating the competition, the focus is on creating a leap in value for both the company and its customers by driving costs down while simultaneously driving value up for customers. Value Innovation is achieved if there is alignment of utility, price, and cost, as value to customers comes from the difference between utility and price and value to the company comes from the difference between price and cost. A strategy to create blue oceans is not about benchmarking competitors and trying to outperform them by offering a little more for a little less. The process to create blue oceans cannot rely on customer research since the market does not exist.

Kim & Mauborgne (2005) use strategy canvas to capture the industry’s current state. Two or more offerings are compared in regards to several attributes or factors the players compete on or invest in. A starting point is the analysis of the strategy canvas of the industry and the shift of the focus from competitors to alternatives and from customers to non-customers. The purpose is to break the trade-off between differentiation and low cost and to craft a new value curve using the Four Actions Framework they have developed. Four questions are asked: which of the factors that the industry takes for granted should be eliminated, be reduced below the standards, be raised above the standards, and which should be created that the industry has never offered. The first two questions provide with insight into how to reduce costs and business model complexity while the second two are about how to increase buyer value and create new demand. The Four Actions Framework results in another tool that the authors call the Eliminate-Reduce-Raise-Create Grid, a list of actions to create a new value curve. The resulting new value curve that represents the blue ocean strategy must have focus –efforts must be concentrated in key factors of competition-, its shape (of the value curve) must diverge from the curves of the other players, and it must have a compelling tagline.

Lack of focus in the value curve means a high cost structure and a business model complex in implementation and execution, and lack of divergence is “me-too.” Some undesired outcomes must be avoided: delivering high levels across all factors and therefore over-supplying the customers; value curve zigzags which mean that the strategy is not coherent and is based on independent sub-strategies; and strategic contradictions such as offering a high level on one factor and ignoring others that support it (W. C. Kim & R. e. Mauborgne, 2005). Since competitors will try to imitate new value curves, one way to discourage imitation is to expand geographically and improve operationally to achieve economies of scale (Kim & Mauborgne, 1997).

Companies segment the market and customize their offerings to meet specialized needs. Economies of scale will be achieved if they focus on the commonalities in the features that customers value, instead of focusing on the differences among customers (Kim & Mauborgne, 1997).

The last tool presented by Kim & Mauborgne (2005) is a profit model that highlights the right sequence: the company sets its strategic price, from which it deducts its target profit margin to arrive at its target cost. Companies can achieve its target cost by streamlining or innovating in cost or partnering. If the target cost cannot be met despite all efforts to build a low-cost business model, the company can use pricing innovation to meet the strategic price. An example of pricing innovation is renting a good instead of selling it.

Kim & Mauborgne (1997) recommend not to be constrained by the company's existing assets and capabilities, and consider what the company would do if it started anew. And in trying to solve customer's needs they propose to go beyond the industry's traditional boundaries. They also recommend to identify the complementary products and services that are consumed alongside the firm's products and to find out how customers might find alternative ways of fulfilling the need that the firm's product serves (Kim & Mauborgne, 2002).

To Markides (1998) a pre-requisite for strategic innovation is questioning the current way of doing business. Strategic innovation requires business redefinition, reconsidering the who, the what, and the how (C. Markides, 1997). A starting point can be to question the answer that the company gave long ago to the question: "what business we are in?"

A business can be defined by the product, by the customer function to be fulfilled, by its core competences, and a breakthrough for a company could come with a shift to the way of defining the business. However, *"the choice of customer is a strategic decision: companies should choose their customers strategically rather than accept as a customer anyone who wants to buy. (...) [Selection of a customer must take into consideration] whether the company is able to serve that customer better or more efficiently than its competitors as a result of its unique bundle of assets and capabilities"* (C. Markides, 1997, p. 16).

To C. Markides (1997) asking the customer or monitoring customer changes do not lead to strategic innovation. It is necessary to understand what is behind what the customer is saying and to understand the customer's business and how the customer is satisfying its own customers' needs. Similarly, Christensen (2002) proposes to watch the customers instead of listening what they say they want to do. Markets must be defined in terms of the jobs people need to get done. However, companies define markets in terms of product categories and demographics, and *"we just don't live our lives in product categories or in demographics"* (C. M. Christensen, Raynor, & Anthony, 2003, p. 5).

Since traditional market research is not reliable for novel products or product categories with rapid change, firms may concentrate on lead users, *"users whose present strong needs will become general in a marketplace months or years in the future"* (von Hippel, 1986, p. 791). Key lead users may be customers of a competitor or totally outside the firm's industry. They may not be found in the firm's customer base. They may have tried to solve their need by applying existing commercial products in ways not anticipated or by developing complete new products. Before identifying lead users, firms must identify the trends associated with promising opportunities on which the users have a leading position. Therefore, *"despite the existence of formal trend*

assessment methods, however, trend identification and assessment remains something of an art” (von Hippel, 1986).

Understand customer’s needs requires understanding the entire experience life cycle for each customer segment –discovery, purchase, first use, ongoing use, management, and disposal- which forces managers to view their offering as a total solution, rather than just a simple product. Distribution-channel partners are critical to deliver a solution and developing measures of value to communicate with customers is recommended (Berggren & Nacher, 2001).

MacMillan & McGrath (1996) attempt to build product strategies that give customers the exact mix of attributes they want, and not more and not less, avoiding over-investing and under-investing. They try to find the best fit between product attributes and customer needs, which is an endless iterative process as competitors innovate and customer needs change. Rather than asking the customers, they also propose to observe them as they buy and use a product.

McGrath & MacMillan (2000) use attribute maps to redesign existing offerings as part of the process to change the business model. They cross customer attitudes –positive, negative, and neutral- with attributes of the offering relative to competitive offerings – basic, discriminator, and energizer. Basic features are those that consumers take for granted that any competitor could offer them, discriminators cause customers to judge the firm to be superior or inferior to competitors, and energizers are attributes that customers consider overwhelmingly positive or negative and that dominate the purchasing decision. The purpose is to identify features that the customers perceive to be worth a lot more than the price charged and a lot more than the competitors’ offerings. A different matrix must be created for each customer segment. The resulting matrix is to be applied to a particular product or service offered to a particular customer segment and classifies the attributes in eight types: (i) non-negotiable (positive/basic), (ii) differentiator (positive/discriminator), (iii) exciter (positive/energizer), (iv) tolerable (negative/basic), (v) dissatisfier (negative/discriminator); (vi) enragers (negative/energizer); (vii) so what? (neutral/basic); and (viii) parallel (neutral/discriminator). Beating competitors on their negatives and eliminating one’s tolerables are sources of opportunity. Technological advances and competitors’ creativity may turn tolerables into dissatisfiers or enragers. Neutral attributes were incorporated because a set of customers wanted them and it is less expensive to include them in a general offering rather than selling them separately. Exciters will be matched by competitors and will become differentiators or non-negotiables, and tolerables will become dissatisfiers. Some actions to redesign the company’s offering are proposed: eliminate emerging enragers, improve dissatisfiers, reduce the cost of non-negotiables and the cost of exciters and differentiators as they will become basic attributes, identify and introduce next-generation exciters and differentiators to turn competitor’s tolerables into dissatisfiers, and eliminate neutrals that add no value for any customer set. Also identify major trends in customer segments and in the environment that may change the attribute map.

MacMillan & McGrath (1997) propose that companies map their customers’ entire experience with their product or service, for each important customer segment, and brainstorm –ask questions- about each step in the consumption chain to find ways to differentiate their product or service. McGrath & MacMillan’s (2000) customer’s

consumption chain focus on the trigger events that precipitate customer movements from link to link throughout their chain. They create an attribute map for each link. Possible links are: awareness of need, search, selection, order and purchase, delivery, payment, receipt, installation and assembly, storage and transport, use, service, repairs and returns, and final disposal. The purpose is to help identify opportunities to differentiate on the basis of skills and capabilities that the company has and its competitors do not. We must improve the delivery of positive attributes, reduce or remove negative and neutral attributes, add the attributes customers desire, do something that makes a positive attribute more universally appealing, et cetera, for each link of the customer's consumption chain of the product or service offered to a particular customer segment. It is also important to check company's assumptions about how each customer segment behave at each link in the chain.

They also suggest re-segmenting the market paying attention on customers' behavior, needs, and value perception rather than using demography. The purpose is to identify a significant subset of customers whose behavior and motivations are not well served by companies using conventional segmentation approaches. They use a grid to cross attributes and segments. The cells are filled using the above-listed types (non-negotiables, et cetera).

They also recommend reconfiguring the market by breaking down the barriers that cause the current market to be structured as it is. There are three types of market reconfiguration: evolutionary, radical, and revolutionary. The last type reshapes current business models and delivers an offering with completely new and different attributes.

McGrath & MacMillan (2005) list forty strategic moves to help redesign one's business model. They refer, among many other issues, to: (i) the customer's consumption chain; (ii) the offerings and their features and characteristics; (iii) the unit of business; (iv) the industry and its potential for major change; and (v) entirely new markets or industries.

In regards to industry, they identify four change patterns: (i) industry swings through cycles of surplus and scarcity; (ii) shifts in an industry constraint or barrier; (iii) increased pace of industry evolution; and (iv) shifts in patterns of costs or bottlenecks that cause value change reordering. There are three strategies to address these patterns: (i) proactively anticipate and exploit the shift; (ii) take advantage of second-order effects; and (iii) disrupt things in a way that favors one's capabilities and disadvantages others'. In regards to new markets or industries, they compare them to tectonic plate shifts, and classify the moves according to combinations of: (i) whether the need or problem is existing or emerging; (ii) whether the proposed solution is existing or new; and (iii) whether existing attempts are adequate or not to solve the problem.

3.5. TRIAL-AND-ERROR

Strategy can also be made by experimentation and trial-and-error. Companies can manage the risk associated to a new strategy by experimenting in a limited way or limited area before fully adopting the new strategy (C. Markides, 1997). The purpose of experimentation is to test the assumptions about the numerous unknowns involved in a new business. *“Starting a new business is essentially an experiment. Implicit in the experiment are a number of hypotheses (commonly called assumptions) that can be tested only by experience. The entrepreneur launches the enterprise and works to establish it while simultaneously validating or invalidating the assumptions”* (Block & MacMillan, 1985, p. 184). Milestones are determined by significant events. Each assumption must be tested with a milestone. Assumptions must be replaced by information. Some milestones are: completion of concept and product testing, completion of prototype, bellwether sale, first competitive action, first significant price change, et cetera. Financing decisions are made as milestones are passed, using the information learned to make go, no-go, or redirection decisions.

One of the expected outcomes of the research is to develop theory about the relationship between trial-and-error experimentation and strategy choices. The question is: are strategy choices made through formal analysis or through trial-and-error? Bowman & Harry (1993, p. 773) state that the connection is weak: *“although studies of organizational learning show that the organizations learn through trial-and-error experimentation (e.g., Huber, 1991; Sitkin, 1992), they do not make the connection to strategy choices (Levitt & March, 1988).”*

Thomke (1998, p. 743) refers to experimentation in the design of new products. Experimentation, a form of problem-solving, *“consists of trial and error, directed by insight as to the direction in which a solution might lie.”* An experiment consists of a four-step iterative cycle –design, build, run, and analyze- in which design is modified in each iteration on the basis of what it has been learned. The purpose of experimentation is learning and action, and the iteration of trial and error consists of: trial, failure, learning, correction, and retrial. Therefore, probing and learning is an iterative process based on experimentation to generate as much information as possible about the product and the market (Lynn, Morone, & Paulson, 1996).

While the conventional product development paradigm consists of six steps –idea generation, screening and evaluation, selection, development, testing, and commercial launch-, it is analysis-driven, and it results in a “single” launch (Lynn, Morone, & Paulson, 1996), experimentation replaces the prescription of “getting it right the first time” by the prescription of “getting it [the product or the prototype] wrong the first time” (S. H. Thomke, 1998) to allow learning.

Lynn, Morone, & Paulson (1996, p. 30) state that with the uncertainty associated with discontinuous innovation there is just one way to learn. *“The probe and learn model suggests that the way to determine if and how to pursue a new business opportunity is to pursue it.”* This contrast with Fiet, Nixon, Gupta, & Patel’s (2006, p. 258) statement that *“it is less costly to acquire information to learn how to launch a venture than it is to actually launch one and learn as the task unfolds. (...) ... searching for information within a consideration set would be less costly (due to economies of scope) and risky than actually launching a venture.”*

The relationship between experimentation and knowledge is emphasized by MacMillan & McGrath (2004). When firms enter a new market they must engage in continuous experimentation to convert assumptions about unknowns into knowledge at the lowest possible cost, and the first step is early identify the few critical customers who will provide information about the market needs.

Regnér (2003) conducted a research on strategy creation in the so-called periphery and concludes that managers in the periphery were described as “hands-on guys” and were considered themselves “independent entrepreneurs”. They were in touch with industry consultants, competitors, customers, and similar actors in entirely different industries. They relied on direct knowledge rather than reports and forecasts. Understanding was based on observations and experiences. They tried to learn about new technologies and markets. Some literal quotes by informants in the periphery are:

- “We used trial and error... tried out things, we never calculated... it was an informal way to cope with it [a particular subject].”
- “We used plenty of trial and error... it was *ad hoc* and informal... not systematic at all to start with. We... used all kinds of informal contacts to acquire information.”
- “One thing led to the other.”
- “We have learned along the way.”

Eisenhardt & Tabrizi (1995, pp. 92-93-94-107-108) also refer to experimentation in product development: *“extensive testing accelerates understanding and reconceptualization of the product through trial and error learning. (...) Testing throughout the development process also increases speed because it creates many failures from which designers can learn. (...) Powerful leaders also help to accelerate the product development by keeping the process focused. Such a highly iterative and experiential process can lose its focus if the product team loses sight of the ‘big picture.’ (...) The experiential approach rests on accelerated learning through iteration and testing that is combined with the motivation and focus of leadership and frequent milestones. Here real-time interaction, flexibility, and improvisation are essential. (...) Fast processes in uncertain situations (...) are improvisational in that they combine real-time learning through design iterations and testing with the focus and discipline of milestones and powerful leaders.”*

An epigraph will be devoted to the improvisational nature of processes involved in learning through trial-and-error experimentation.

Learning

Learning is a pre-requisite for strategy making. *“Learning inevitably plays a, if not the, crucial role in the development of novel strategies. (...) We try things, and those experiments that work converge gradually into viable patterns that become strategies. This is the very essence of strategy making as a learning process”* (Mintzberg, 1994, p. 111).

But the ultimate purpose of learning is change of behavior. *“An entity learns if, through its processing of information, the range of its potential behaviors is changed”* (Huber, 1991, p. 89).

Starbuck & Hedberg (2001) differentiate among behavioral and cognitive learning. Behavioral learning is a mechanistic and involuntary process over which learners cannot exert control. Behavior is explained without allowing for conscious thought. There is little reliance on the perceptions of decision-makers. In cognitive learning individuals perceive, analyze, plan, and choose. Learning modifies the cognitive maps that form the bases for analysis, and analysis guides action. Perceptions of decision-makers are emphasized. *“Learners can choose what to perceive, how to interpret perceptions, and which actions to take. Thus, effectiveness of their behaviors depends on how well they read the environments and upon how rapidly they discover changes. Reading environments and rapidly discovering changes, in turn, depend upon factors such as curiosity, playfulness, willingness to experiment, and analytic skill”* (Starbuck & Hedberg, 2001, p. 333).

Search is part of the organizational learning process through which firms solve problems (Katila & Ahuja, 2002). Product development is problem solving as well as business creation. Search depth refers to how deeply a firm reuses its existing knowledge and search scope refers how widely a firm explores new knowledge. Search may be local and distant. They focus on product innovation and relate search depth and search scope to absorptive capacity (Cohen & Levinthal, 1989, 1990, 1994): *“existing knowledge may facilitate both the absorption and further development of new knowledge, suggesting a positive relationship between relatively high levels of depth and scope, and product innovation”* (Katila & Ahuja, 2002, p. 1185).

Learning consists of acquiring knowledge about action-outcome relationships. Govindarajan & Trimble (2005a) state that the new venture learns by analyzing disparities between predictions and outcomes. *“Organization learning is an experiential process of acquiring knowledge about action-outcome relationships and the effects of environmental events on these relationships”* (Duncan & Weiss, 1979, p. 84). The model of trial-and-error learning for explaining the process of innovation development examined by Garud and Van de Ven (1992) and Van de Ven and Polley (1992) focuses on the relationships between the actions taken and the outcomes experienced by entrepreneurs during the innovation development, and the influences of environmental context events on these action-outcome relationships.

To Cheng & Van de Ven (1996) the action-outcome relationships follow a chaotic pattern during the initial period and an order pattern during the ending period. Exogenous context events follow a random pattern in both periods. External context events are perturbations because outcomes may be due to the entrepreneur's actions or due to the external context events. Learning in chaos is an expanding and diverging process to discover possible actions, outcomes, and contextual settings. Learning in order is a narrowing and converging process of testing the action-outcome relationship. Trial-and-error learning is appropriate when outcomes are known but actions to be taken are not. Negative outcomes lead to changes in actions until positive outcomes are experienced.

The process of trial-and-error learning proceeds with a course of action and an outcome response to be interpreted and evaluated. If the outcome is negative a new course of action is undertaken until the response is a positive outcome. People do not learn what to do after a negative outcome. They only learn what not to do. They must change their course of action to avoid a negative outcome again but they do not know if the change

will lead to a positive outcome. This basic model of adaptive learning “*has proven quite robust in situations where preferences are clear, alternative courses of action are specified in advance, and outcomes are unambiguous [but not] in more ambiguous organizational settings where goals are often vague and shifting over time, new courses of action emerge during the developmental process, and outcomes from the actions taken are difficult to assess*” (Van De Ven & Polley, 1992, p. 93). An alternative model takes into consideration that actions may create new goals, that external agents – investors or top management- may modify the course of action undertaken by the entrepreneurs, and that environmental events may affect outcome assessment. In ambiguous settings, outcomes that trigger subsequent actions may not have been caused by the prior actions taken, and actions may have indeterminate outcomes, since outcomes may be caused by spurious exogenous factors independent of the actions taken. Courses of action may not be known in the beginning and may emerge as the project develops.

McGrath (2001) also states that learning consists of developing knowledge about action-outcome relationships and the effect of the environment on these relationships, and points out the role of exploratory learning in generating the internal variety that adaptation requires. “*In highly novel settings, groups should follow the variety-generating approach. This is because, absent a base of cause-and-effect understanding, experimentation generates information that cannot be obtained any other way*” (McGrath, 2001, p. 118). She examines how managerial oversight processes influence exploratory learning in new business development projects and concludes that at high levels of exploration, increases in goal autonomy and supervision autonomy are associated with increases in learning effectiveness, since higher autonomy is associated with higher variance. “*Variance enhancement is more likely to flourish in circumstances in which improvisation and experimentation are encouraged (...). [However,] as more knowledge is gained (...) guidebooks come to replace improvisation, roles and jobs become more clearly defined, and rules for ‘how we do things here’ gradually replace trial and error*” (McGrath, 2001, p. 121). She also states that defining clear goals may be unintentionally dysfunctional when variance to aid adaptation under uncertainty is sought, since clear goals narrow the field of search. “*Specific measurable goals might prematurely truncate discovery processes that are critical to creating this base of knowledge*” (McGrath, 2001, p. 120).

Learning also depends on the interpretation of feedback from experimentation by entrepreneurs and managers. To Woo, Daellenbach, & Nicholls-Nixon (1994, p. 510) venturing is “*a sequence of enacted decisions and responses emanating from the subjective interpretations of the entrepreneur,*” learning emerges from a process of interpretation, and the interpretations of the entrepreneur are idiosyncratic. Therefore, learning through experimentation requires obtaining feedback, giving interpretations, and making adaptive modifications. Since different activities offer different learning opportunities, the sequence of activities is critical to determine the characteristics of the learning. Interpretations can be understood within the context of the entrepreneur’s beliefs about the environment, frames of reference, and past experiences, and the environment can be viewed as concrete, measurable, and determinant, or as emergent through interactions with actors and organizations.

Huber (1991) differentiates among congenital and experiential knowledge. Congenital knowledge is a combination of the knowledge inherited by an organization at its

conception and the additional knowledge acquired prior to its birth. It influences future learning. By contrast, experimental learning, the knowledge acquired by an organization after its birth, may be a result of intentional, systematic efforts or not. In the former case, feedback about cause-effect relationships between actions and outcomes is analyzed, and negative outcomes propose new actions, and in the latter case learning is unintentional or unsystematic and often haphazard and multi-faceted.

Govindarajan & Trimble (2004) define strategic experiments as a means to test the viability of new business ideas, to test a strategy, and to learn. Learning, which comes from trial-and-error, is needed to confirm or challenge the initial expectations and resolve the unknowns of a new business. Learning follows from the analysis of disparities between predictions and outcomes in a similar way as in a scientific experiment in which outcomes are predicted on the basis of a hypothesis, actual outcomes are measured and compared to predictions, and conclusions about the hypothesis are drawn. In contrast to a scientific experiment, in business experiments results may not be available quickly and may be ambiguous, the experiment can not be isolated from outside influences, and the experiments are too expensive to repeat. Strategic experiments emphasize learning over accountability. In strategic experiments management accountability has to do with learning. The emphasis is put in how quickly managers are learning and how quickly they are responding to new information. Radical-innovation evaluation is based *“on the amount that was learned for the amount of money invested in the project, rather than task completion against budget and schedule”* (Leifer, O'Connor, & Rice, 2001, p. 107).

To Lynn (1998) there are three forms of team learning: Within-Team Learning – learning by doing-, Cross-Team Learning –gained by one team and transplanted to another-, and Market Learning –from competitors, suppliers, and customers. In discontinuous innovation –new technology and new market-, Within-Team Learning is critical, Cross-Team Learning must be restricted by forming an autonomous unit, and Market Learning plays a limited role because the customers are unfamiliar with the innovation.

To Fiol & Lyles (1985, p. 804) *“organizational learning is not simply the sum of each member’s learning. Organizations, unlike individuals, develop and maintain learning systems that not only influence their immediate members, but are then transmitted to other by way of organization histories and norms.”*

Katila (2002) refers to the dichotomy old-recent knowledge. Old knowledge may become obsolete and may not match with the current environment. But it is more reliable. Many new technologies are fusions or novel combinations of old ideas. Using recent knowledge may trigger a retaliatory response by its creators. Access recent external knowledge is costly since it is tacit. Old intra-industry knowledge hurts innovation while old extra-industry knowledge promotes innovation.

Improvisation

Improvisation is the degree to which design and implementation of an activity converges in time. To Moorman & Miner (1998b, p. 705) *“a firm improvising a marketing strategy may skip market research and follow the intuition of a project leader to guide a product introduction. (...). If an organization improvises, assesses outcomes,*

and then acts again, this process can be seen as trial-and-error learning.” Improvisation depends on prior knowledge and uses routines.

To Moorman & Miner (1998a, p. 15) *“improvisation is a strategy of emergent learning that can be employed as a substitute for planning.”*

Improvisation differs from compression, innovation, intuition, and learning (Miner, Bassoff, & Moorman, 2001). Compression consists of simplify and shorten the steps in a process to reduce the time it takes to complete the steps and the entire process. Innovation is deviation from existing practices. Intuition consists of making choices without formal analysis. Learning is systematic change in behavior or knowledge generated through experience. To these authors improvisation learning consists of “real-time” experience to solve a problem or create value from an unexpected opportunity. It generates behaviors with local value and knowledge idiosyncratic to time or space.

Intuition was defined as operating with choices made without formal analysis by Crossan & Sorrenti (1997).

Miner, Bassoff, & Moorman (2001) differentiate among experimental and trial-and-error learning. While experimental learning consists of “off-line” experiences to acquire new information and knowledge of cause-and-effect relationships and generates behaviors or knowledge more generalizable, trial-and-error learning consists of actions taken “on-line” and generates localized knowledge.

Planning for trial-and-error

If market research is not appropriate for disruptive innovations since we cannot analyze markets that do not exist, and information about new markets must be created by experimenting (C. M. Christensen & Raynor, 2003; C. M. Christensen, Raynor, & Anthony, 2003), discovery-driven planning is a way to create a plan to test assumptions and make an intuitive process be rigorous.

Since new businesses are characterized by a lot of assumptions about unknowns—a high ratio of assumption to knowledge—, discovery-driven planning attempts to convert assumptions into knowledge at the minimum possible cost. It is a plan to learn by setting up key checkpoints (MacMillan, Van Putten, McGrath, & Thompson, 2006). Discovery-driven plan is used to identify the key assumptions of the business which are to be tested at clearly defined milestones as the project unfolds. Funds are released after each milestone (MacMillan & McGrath, 2004). Discovery-driven planning systematically converts assumptions about the unknown in knowledge as the project unfolds. New data uncovered are incorporated into the evolving plan. Discovery-driven plans consist of four documents: a reverse income statement, pro forma operations specs, a key assumptions checklist, and a milestone planning chart. Learning is formally planned using milestones to test assumptions. Major commitments of resources are postponed until the pass of each milestone (McGrath & MacMillan, 1995).

Govindarajan & Trimble’s (2004) strategic experiments can also be planned. Theory-focused planning relates to building theory to make predictions, and theory is tested by comparing the predictions with actual outcomes. It leads to improved theories and improved predictions. *“Historically, planning and control systems were designed to*

implement a proven strategy by ensuring accountability under the presumption of reliable predictability. Planning systems for strategic experiments, by contrast, should be designed to explore future strategies by supporting learning, given the unpleasant reality of reliable unpredictability” (Govindarajan & Trimble, 2004, p. 70). Compared to conventional planning, in theory-focused planning focus is put on a few critical unknowns rather than on a lot of detail, on the theory used to generate predictions and on the underlying assumptions rather than on the predictions themselves, and on leading indicators rather than on a mix of financials and non-financials. Trends instead of specific figures are predicted, and more frequent reviews are done.

Real options reasoning

Real options reasoning is a tool used to reduce the uncertainty associated to the creation and launch of novel businesses. Businesses may be predictable or unpredictable, and real options reasoning is appropriate for the latter (MacMillan & McGrath, 2004). A real option is a *“limited-commitment investment in an asset with an uncertain payoff that conveys the right, but not the obligation, to make further investments should the payoff look attractive. If you decide not to make further investments, the option expires, but all what is lost is its price”* (McGrath, 2000, p. 35). Options provide the right but not the obligation to invest in a project (van Putten & MacMillan, 2004). Therefore, real options reasoning is based on *“lots of inexpensive failures from which you can learn”* (McGrath, 2000, p. 48). To Bowman & Hurry (1993, p. 762), *“an option confers preferential access to an opportunity for investment choice –in the sense of gaining an advantage over competitors, or in the sense of being better suited for one among several possible courses of action,”* and *“keeping options open”* is a basic intuition in situations that involve unforeseeable future. Funding decisions are made as key milestones are reached and assumptions have been tested (McGrath, 2000).

The value of an option increases with the uncertainty (van Putten & MacMillan, 2004); the value of an option increases with the volatility of the underlying asset’s value (Bowman & Hurry, 1993); and *“ironically, the ability to provide access to significant upside potential while containing downside losses makes options more valuable with greater volatility”* (McGrath, 2000, p. 35).

Bowman & Hurry (1993) recommend holding the option when the opportunity is volatile and there is high perceived environmental uncertainty on the part of managers and striking it when its volatility decreases and there is low perceived environmental uncertainty. Options limit the downside risk of exploration and allow experimentation and learning. There is a *“wait and see”* period while the firm holds the option. After the opportunity-arrival signal the firm can continue to learn until a second signal, the expiration signal, when the option expires due to a pre-emptive action by a competitor.

Performance of organizations depends on the bundles of options they hold and strategies are developed by the sequential striking of option chains.

They think that environments may be enacted and that managers perceive less uncertainty as the organization’s capabilities grow and the firm achieves greater control over the environment.

A new business faces some types of uncertainties. The revenues depend, among other factors, on the speed of adoption, on the existence of factors that might block access to critical resources, sales channels or customers, on the competitive response, on whether the business is easy to imitate, on whether the company can own or access the dominant standard. If customers need extensive education or training, have to change their usage patterns, face significant sunk costs in the existing solution, et cetera, adoption may be delayed (McGrath, 2000).

Real options reasoning relates to the need of staging the financial commitment and deploying the capital as the business model is sharpened (Gilbert & Bower, 2002) and the need of managing the risk placing a series of small bets on early stage projects (H. Chesbrough & Crowther, 2006).

Real options reasoning is compared to discounted cash flow (DCF) analysis. Under uncertainty cash flows are discounted at a high rate and DCF analysis may lead to reject highly promising projects (van Putten & MacMillan, 2004). The DCF methodology implicitly assumes that once the project starts all investment steps will automatically be carried out. The flexibility to stop, put on hold, redirect, or postpone the project after any of the many investment steps creates the option value which allows *“to invest a small amount to discover if they [the project managers] are right, and stop at low cost if they are wrong”* (MacMillan, Van Putten, McGrath, & Thompson, 2006, p. 31).

McGrath (1996) differentiates among “technical” uncertainty and “external” uncertainty. The former can be reduced by making an investment. The latter remains regardless of whether an investment is made as key issues have to do with factors beyond the control of the firm. In the former the decision is to invest if the net present value is positive. In the latter is “wait and see” and postpone investment until the critical uncertainties are resolved. *“Expenditures are only made to the limit of current knowledge; beyond this limit, commitments are deferred”* (McGrath, 1996, p. 102). Asset parsimony reduces the cost of taking out an option, which increases the return on the resources invested and the number of options a company may take out with the same limited resources.

MacMillan & McGrath (2002) differentiate among scouting and positioning options. Scouting options are investments to learn about the market by probing prototypes with potential early adopters. They allow us to learn about the preferred combination of attributes by the market, the segmentation of future markets, the reactions of customers to the product features. When there is technological uncertainty, instead of making a single bet on any of the alternative technologies, provided that it is impossible to pursue all of them aggressively, positioning options allow us to place small bets on many of them.

From the financial point of view, and following to van Putten & MacMillan (2004), the total project value is the sum of the net present value, the adjusted option value, and the abandonment value. The proportion of the total project value contributed by each component (DCF value and real-option value) changes as the uncertainty decreases over time. In the early stages, the DCF value is low because the discount rate is high to adjust for the uncertain cash flows and the real-option value is high due to the uncertainty. Abandonment value exists if the investment has created an asset that can be transferred to other business units or sold to other companies.

Cooper (1990) provides a tool to plan for experimental projects, the so-called stage-gate systems. Each gate is characterized by a set of inputs, a set of exit criteria –items upon which the project is judged; hurdles that the project must pass to access the next stage; qualitative in the early gates, financial in the later-, and an output –a go/kill/hold/recycle decision and an action plan to the next stage. Gates ensure a “complete” process and avoid the omission of critical activities. Parallel rather than sequential activities compress the development time without sacrificing quality.

Organizations can also plan to improvise or routinize processes to stimulate improvisation (Miner, Bassoff, & Moorman, 2001).

Innovating organization

Strategic innovators have to institutionalize innovation and have to create an environment that encourages and promotes a questioning attitude, if continuous questioning of the status quo and continuous experimentation are desired (C. Markides, 1998).

One way to institutionalize innovation is separating the innovating organization from the operating organization, since the tasks and functions are different, and creating reservations which are *“organizational units, such as R&D groups, that are totally devoted to creating new ideas for future business. The intention is to reproduce a garage-like atmosphere where people can rapidly and frequently test their ideas. Reservations are havens for “safe learning.” When innovating, one wants to maximize early failure to promote learning”* (Galbraith, 1982, p. 14).

Garvin (1993, pp. 80-81) defines a learning organization as *“an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights. (...). Learning organizations are skilled at five main activities: systematic problem solving, experimentation with new approaches, learning from their own experience and past history, learning from the experiences and best practises of others, and transferring knowledge quickly and efficiently throughout the organization.”*

3.6. EXTENDED FRAMEWORK ADDITIONAL CONSTRUCTS

Entrepreneurship

McGrath & MacMillan (2000, p. 3) refer to an entrepreneur as “*someone who has perceived and grasped opportunities that were seemingly invisible to others.*” Other authors think that innovation is carried out thanks to a determined leader. While there are many examples of innovations originated by individuals (Dell, Amazon.com, Wal-Mart), we could also find examples of novel ideas or business models developed by corporations (i.e. Burgelman’s internal corporate venturing).

There are several perspectives about entrepreneurship. In the population ecology perspective, creation of businesses is determined by the distribution of resources in society rather than motives, decisions, and behavior of individuals (Van de Ven, Hudson, & Schroeder, 1984). Other perspectives consider individual characteristics and motives, and behavior of individuals related to opportunity recognition.

Although it may exist controversial about what determines business creation, the role of the entrepreneurs in the creation and early development of a new venture seems clear. Kimberly (1979, p. 454) conducted a case study about a new medical school and concludes that: “*the school’s early development (...) cannot be understood without some knowledge of the ambitions, visions, strengths, and weaknesses of its first dean. (...). Whether one chooses to call him an entrepreneur, a leader, a guru, the fact is that his personality, his dreams, his flaws, and his talents were largely responsible for the school’s early structure and results.*”

Strategy making in the early development of a firm cannot be understood without taking into consideration the role of the entrepreneurs. Mintzberg & Waters (1982, p. 496) conducted a case study about an entrepreneurial firm and conclude that the entrepreneurial mode of strategy making is characterized by controlled boldness –no bold move is undertaken without knowing its consequences, having “tested the waters” doing minor probes- and the entrepreneur’s intimate and personalized knowledge of the business. Intuition based on such knowledge directs the entrepreneur. When the business grows beyond the comprehension of one individual, the planning mode is required, a mode that is “*more decentralized, more analytical, in some ways more careful, but less flexible, less integrated, less visionary, and, ironically, less deliberate.*”

Entrepreneurship relates to opportunity recognition in that the entrepreneur’s prior knowledge is a pre-requisite for discovery (Fiet, 2007). Entrepreneurs use consideration sets to constrain their search for business opportunities, and “*an entrepreneur’s consideration set would probably be unique, based on specific knowledge from prior experience combined with ongoing feedback signals from previously selected channels. (...). The selection of information channels that constitute a consideration set depends crucially on entrepreneurs understanding their own specific knowledge*” (Fiet, 2007, pp. 600-607). Entrepreneurs vary in their competence –which depends on their experience-based specific knowledge- but also in their absorptive capacity to assimilate new knowledge once it is acquired. Rapid preparation cannot substitute for prior knowledge.

The entrepreneurial process is governed by experimentation and learning, and by dominance by random events (Woo, Daellenbach, & Nicholls-Nixon, 1994). Shocks and luck may play a much greater role in the success or failure of a new venture than other factors. Shocks cannot be determined in advance and their likelihood cannot be assessed. Their consequences can be increased costs of operations and investments and diminished opportunities and revenues. Ventures can develop buffers to moderate the random events by creating dependence of customers on the venture, implementing systems and technologies difficult to be imitated by competitors, introducing flexibility, promoting low operating and financial leverages, building networks, being parsimonious in the use of resources –particularly, assets-, locating in insulated niches, moving incrementally, et cetera.

To help understand the characteristics of entrepreneurship, some scholars have studied the differences between entrepreneurs and managers in organizations (Busenitz & Barney, 1994). For instance, in launching products to market, entrepreneurs get some limited feedback from biased samples –few potential customers- while managers in large organizations are more rational in their decision making since they have dealt with a large number of similar situations, they have access to more and better information, and they keep linkages with colleagues.

Intrapreneurship is entrepreneurship in the context of a corporation. *“The decision to act intrapreneurially occurs as a result of an interaction between organizational characteristics, individual characteristics, and some kind of precipitating event”* (Hornsby, Naffziger, Kuratko, & Montagno, 1993, p. 33) and management support, one of the organizational characteristics, *“is the extent to which the management structure itself encourages to believe that innovation is, in fact, part of the role set for all members of the organization. [Forms of management support would be:] quick adoption of employee ideas, recognition of people who bring ideas forward, support for small experiential projects, and seed money to get projects off the ground”* (Hornsby, Naffziger, Kuratko, & Montagno, 1993, p. 32).

Absorptive capacity

“Prior related knowledge confers an ability to recognize the value of new information, assimilate it, and apply it to commercial ends” (Cohen & Levinthal, 1990, p. 128). The accumulation of related knowledge permits the firm *“to evaluate and exploit subsequent developments within a field”* (Cohen & Levinthal, 1994, p. 228). Absorptive capacity, *“the capacity to ‘exploit’ outside knowledge”* is *“the set of closely related abilities to evaluate the technological and commercial potential of knowledge in a particular domain, assimilate it, and apply it to commercial ends”* (Cohen & Levinthal, 1994, p. 227). Cumulativeness means that the absorptive capacity build now permits more efficient accumulation in subsequent periods. The payoff to absorptive capacity depends upon the realization of the technological and commercial promise.

Accumulated prior knowledge increases both the ability to store new knowledge into memory and the ability to retrieve it. A firm’s absorptive capacity depends on the absorptive capacities of its individual members, but it is not simply the sum of them. Absorptive capacity can be internally developed or bought hiring people, contracting consulting services, or through corporate acquisitions. But if it is firm-specific, it cannot be bought and quickly integrated. Absorptive capacity may be a byproduct of a firm’s

R&D or a byproduct of a firm's operations when the knowledge domain that the firm wants to exploit is related to its current knowledge base. It has to be created (i.e. sending personnel for training) when the knowledge domain is unrelated.

Accumulating absorptive capacity in one period facilitates accumulation in the next. If a firm does not invest in absorptive capacity in some initial period or ceases investing in it, it will not assimilate and exploit new information. A low initial investment or a halt in the investment path diminishes the attractiveness of subsequent investment.

Absorptive capacity depends on manager's perception of uncertainty. *"To the extent that absorptive capacity improves the firm's ability to envisage future technical advances, uncertainty favors investment in absorptive capacity. (...) to the extent that absorptive capacity is developed cumulatively, uncertainty discourages its early development"* (Cohen & Levinthal, 1994, p. 228).

To Cohen & Levinthal (1989) absorptive capacity differs from learning-by-doing. Learning-by-doing refers to the automatic process by which the firm becomes more practised and efficient at doing what it is already doing. Through absorptive capacity the firm acquires outside knowledge that will permit it to do something different.

Radical innovation

"Companies can use innovation to redefine an industry by employing combinations of business model innovation and technology innovation" (Davila, Epstein, & Shelton, 2005, p. 40). Redefining an industry means setting its rules of the game.

An innovation can be characterized in terms of its locus in a product's hierarchy (core/peripheral), its type (architectural/generational), and its characteristics (competence-enhancing/destroying, and incremental/radical) (Gatignon, Tushman, Smith, & Anderson, 2002).

Christensen, Anthony, & Roth (2004) define two types of innovation: sustaining and disruptive. The former are improvements to existing products and the latter are new value propositions that either create new markets or reshape existing markets. There are two types of disruptive innovations, low-end and new-market. Low-end disruptive innovations occur when existing offerings are "too good" and hence overpriced. New-market disruptive innovations occur when the characteristics of the existing products limit the number of potential customers or force consumption to take place in inconvenient, centralized settings. Changes in the features of the offerings bring consumption to "non-consumers" or "non-consuming contexts."

Foster & Kaplan (2001b) define three types of innovation: incremental, substantial and transformational, determined by two factors, how new the innovation is to the customer and the producer and how much wealth it generates. They call them transformational because they transform the industry, match Schumpeter's concept of a "historic and irreversible change in the way of doing things." They believe that the scale of innovation is logarithmic, in the sense that substantial innovation is ten times greater than incremental innovation, and transformational innovation is ten times greater than substantial innovation. However, there are ten substantial innovations for every hundred

incremental innovations and one transformational innovation for every ten substantial innovations.

Davila, Epstein, & Shelton (2005) define three types of technology innovation (product and services, process technologies, and enabling technologies) and three types of business model innovation (value proposition, supply chain, and target customer). Innovation involves changes to one or more of the resulting six elements, which are termed the six levers for innovation. They define three generic types of innovation (incremental, semi-radical, and radical) which are the result of different combinations of both technology and business model innovations. Incremental innovation involves small changes in one or more of the six levers. Radical innovation requires significant changes in one or more of the business model levers and significant changes in one or more of the technology levers. Semi-radical innovations may be of two types: business model driven, with significant changes in the business model levers and small changes in the technology levers, and technology driven, with small changes in the business model levers and significant changes in the technology levers. *“Innovation is always about combining something old and something new from the technology and business model levers”* (Davila, Epstein, & Shelton, 2005, p. 41). In addition to the types of innovation, the authors distinguish two innovation strategies: the Play-to-Win strategy (PTW) and the Play-Not-to-Lose strategy (PNTL). A company may prefer a PNTL strategy to a PTW strategy when the competitive environment is extremely intense or uncertain or when the company faces internal constraints. A PNTL strategy includes more incremental innovations in the innovation portfolio of the company than a PTW strategy which rely on semi-radical and radical innovations.

C. C. Markides & Geroski (2005) define four types of innovation, depending on different combinations of two types of effects: (i) effect on “consumer habits and behaviors” (from minor to major effect) and (ii) effect on “established firms’ competencies and complementary assets” (from enhancement to destruction). The four types are: incremental, major (major effect on consumers and enhancement), strategic (minor effect on consumers and destruction), and radical. Radical innovations *“meet two conditions: first, they introduce major new value propositions that disrupt existing consumer habits and behaviours (...); second, the markets that they create undermine the competences and complementary assets on which existing competitors have built their success. (...). ...are the kind of innovations that give rise to new-to-the world markets. (...) are innovations that have a disruptive effect on both customers and producers”* (C. C. Markides & Geroski, 2005, pp. 4-5).

To C. Markides (2006) radical product innovations are disruptive to consumers, since they disturb habits and behaviours, and to producers, since the markets they create undermine the competences and assets on which they have built their success. Instead of being driven by demand, they result from a supply-push process.

“Radical innovations advance the price/performance frontier by much more than the existing rate of progress” (Gatignon, Tushman, Smith, & Anderson, 2002, p. 1107). Radical product innovation consists of introducing new products that incorporate different technology and can fulfil customer needs better (Chandy & Tellis, 1998). Radical or breakthrough innovation is the creation of a new (for the firm and in the market) line of business. New means with unprecedented performance features o with

already familiar features but offering an improvement of performance or a reduction in cost.

A radical innovation is a product new for the firm and new in the market with either unprecedented performance features or familiar features that offer significant improvements in performance or cost that transform existing markets or create new ones (Leifer, O'Connor, & Rice, 2001; O'Connor & Rice, 2001). *“The radical-innovation life cycle is long term (often a decade or longer), unpredictable, sporadic (with stops and starts, deaths and revivals), non-linear, and stochastic (with unpredictable exogenous events)”* (Leifer, O'Connor, & Rice, 2001, p. 103).

Radical innovations, departures from existing practice, imply a high degree of new knowledge. Incremental innovations, minor improvements or simple adjustments in current technology, imply a low degree of new knowledge. The difference between radical and incremental relies on the degree of new knowledge embedded in the innovation which may be placed along a theoretical continuum (Dewar & Dutton, 1986).

Radical innovation disrupts existing competences and is associated with the acquisition of new competences. Radical innovations are perceived as commercially more successful than incremental innovations. Architectural innovations –changes in linkages between existing subsystems- challenge organizational capabilities and generational innovations –changes in subsystems- do not. The most successful innovations are those that built on both existing as well as acquired new competences from outside the firm. Acquiring new competences is less difficult than destroying existing competences (Gatignon, Tushman, Smith, & Anderson, 2002).

Ideas generated by traditional processes are not breakthroughs; they are marginal contributors to the firm’s product portfolio (Lilien, Morrison, Searls, Sonnack, & Von Hippel, 2002).

Investment in radical innovation depends on the firm’s motivation and ability (Chandy, Prabhu, & Antia, 2003). Willingness to cannibalize –the extent to which a firm is prepared to reduce the actual and potential value of its investments- is the driver of radical product innovation. Size is not, and firms of all sizes can be radical innovators if they are properly organized (Chandy & Tellis, 1998). Firm dominance is defined by investments, market share, and resources. Investments and market share in the existing product generation reduce the firm’s motivation, but resources increase the firm’s ability. If managers expect the radical innovation to make existing products obsolete (to enhance existing products) they will invest more (less) in radical innovation (Chandy, Prabhu, & Antia, 2003).

Ettlie, Bridges, & O’Keefe (1984) present a model that states that the adoption of a radical innovation process is due to an aggressive technology policy that promotes the concentration of technical specialists that, in turn, ensures the presence of a champion and congruence between organization and technology.

Disruption or a discontinuity

Sustaining innovations meet the demands of existing customers in established markets. Disruptive innovations create entirely new markets and business models by appealing to customers who are unattractive to the incumbents (C. M. Christensen, Johnson, & Rigby, 2002).

C. Markides (2006) differentiates among disruptive product innovation, disruptive business model innovation, and disruptive technological innovation in the sense of Christensen.

Disruptive strategic innovations –a specific type of strategic innovations- are ways of doing business different from and in conflict with the traditional ways. They do not attract the attention of the established competitors because they are small and low-margin business. Key success factors are different and activities are incompatible “because of the different trade-offs in the two ways of doing business” (Charitou & Markides, 2003, p. 57).

To Anderson & Tushman (1990, p. 606) “*the core technology of an industry evolves through long periods of incremental change punctuated by technological discontinuities.*” Technological discontinuities are price-performance improvements that increase demand and environment munificence. Technological change within a product class is characterized by long periods of incremental change punctuated by discontinuities which may be either competence enhancing –they build on existing skills and know-how- or competence destroying –they require new skills and competences. Competence-enhancing discontinuities are initiated by incumbents and consolidate their leadership since increase barriers to entry and few firms enter the market. Competence-destroying discontinuities are initiated by new entrants and barriers to entry are lowered (Michael L. Tushman & Anderson, 1986).

Tushman & O’Reilly (1996, p. 11) state that organizations evolve following a pattern: “*periods of incremental change punctuated by discontinuous or revolutionary change. Long-term success is marked by increasing alignment among strategy, structure, people, and culture through incremental or evolutionary change punctuated by discontinuous or revolutionary change that requires the simultaneous shift in strategy, structure, people, and culture.*” In stable environments, corporate culture is a key success factor as it allows controlling and coordinating people without formal control systems. But it becomes a barrier to change when a discontinuous change occurs. Cultural inertia is reinforced with age and success.

Similarly to technology, strategies describe a life cycle, with periodic waves of change and continuity (Mintzberg, 1978).

Architectural innovations are “*innovations that change the way in which the components of a product are linked together, while leaving the core design concepts (and thus the basic knowledge underlying the components) untouched*” (R. M. Henderson & Clark, 1990, p. 1). Architectural innovations are triggered by a change in a component that creates new interactions and new linkages with the other components. In contrast to incremental or radical innovations, established firms have difficulty in adapting to architectural innovation. While incremental innovation reinforces the

competitive position of established firms and builds on their core competences –it is “competence enhancing”- and radical innovation is “competence destroying”, in architectural innovation part of what the firm knows is useful and must be applied and part is not only not useful but may handicap the firm. The firm faces two problems, recognizing what is useful and what is not and building and applying new knowledge while keeping the relevant old knowledge, two problems a new entrant do not face.

Sustaining innovations involve incremental refinements and improve the performance of existing products. Firms improve their products to meet their best customers’ needs. The speed of firms’ innovation is faster than the speed of consumers’ innovation adoption and those sustaining innovations create opportunities for disruptive innovations –the “Innovator’s Dilemma” referred to below. Disruptive innovations initially under-perform the existing products and are undervalued by current customers since they deliver less than the standard, but they are cheaper, simpler, smaller, and more convenient to use, and a large part of the market did not need all the performance offered by the existing products (C. M. Christensen, Raynor, & Anthony, 2003; Gilbert, 2003).

One of the characteristics of technological innovation is that its pace outstrips customer’s abilities to utilize the improvements (C. Christensen, Craig, & Hart, 2001).

Disruptive innovations are based on two general strategies: create a new market and disrupt the business model from the low end. In other words, disruptive innovations should either enable consumption by potential consumers excluded from the market (less-skilled or less-wealthy) or target customers at the low end of a market who do not need all the functionality of the existing products. In creating a new market companies compete against non-consumption since available products are too expensive or too complicated. They compete against non-consumption since they allow people to do things they could not do in the past for lack of money or skill or they are already trying to do but cannot with the current products or services. The second strategy is aimed at disrupting the incumbent’s business model by targeting the least-demanding tiers of the market, the customers that are “over-served” (C. M. Christensen, 2002; C. M. Christensen, Johnson, & Rigby, 2002; Gilbert, 2003).

New-market creation requires that things were previously done only by expensive specialists in centralized, inconvenient locations (C. Christensen, Craig, & Hart, 2001). Competing against non-consumption is easier than stealing customers from incumbents (C. M. Christensen, Johnson, & Rigby, 2002; Hart & Christensen, 2002).

Disrupting the business model from the low end requires creating a business model that allows to profit from the disruptive innovation despite the reduced selling prices, which on the other hand make the business unattractive for the incumbents who get out of the low tiers of the market because they are less profitable. Therefore, innovators attack them and move up supplying the tiers the incumbents are abandoning (C. M. Christensen, 2002).

Disrupting the business model from the low end explains the so-called “Innovator’s Dilemma” (C. M. Christensen, 1997). Companies fail precisely because they are well managed; they listen to and satisfy the needs of their best customers, and attack the largest and most profitable tiers of the market (C. M. Christensen, 2002). Incumbents

move from the low tiers to those where profitability is greater by selling more sophisticated products to more demanding customers. Disruptive technologies enter the low tiers of the market where customers are overshot. The incumbents' best customers do not use them because they perform worse. The incumbents are so focused on sustaining innovations that they ignore them (C. Christensen, Craig, & Hart, 2001).

Another vision of the "Innovator's Dilemma" is C. Markides (2006) statement that sometimes over-engineering –added functionalities not needed by the customer– happens and increased prices limit the market, giving rise to new entrants who may offer a product good enough in performance but cheaper.

In contrast to the Christensen's "attack from below", there is an alternative scenario of "attack from above" in which *"a higher performing and higher priced innovation is introduced into the most demanding established market segments and later moves towards the mass market"* (Utterback & Akee, 2005, p. 15).

In regards to the notion of lead user, lead customers are appropriate to assess the potential of sustaining innovations but they are not to assess the potential of disruptive innovations (Bower & Christensen, 1995).

Utterback & Brown (1972) suggest to monitor early signals of change as the formation of new firms and their commitments to product developments, paying attention to their activities and product announcements, the patent literature, the current state of the art in a field assessed by different sources asked independently, the commitment of significant resources to idea development by a firm, et cetera.

Market creation

To qualify as a business model innovation, the new business model must enlarge its market by attracting new customers or by encouraging existing customers to consume more (C. Markides, 2006).

Govindarajan & Trimble (2005b) indirectly refer to market creation when state that strategic experiments require target emerging and poorly defined industries created by non-linear shifts in the industry environment.

Kim & Mauborgne's blue ocean strategy attempts to create market. They propose to make the competition irrelevant by creating a new market space where there are no competitors (W. C. Kim & R. e. Mauborgne, 2005). Red oceans –the known market space– represent all the industries in existence today and blue oceans –the unknown market space– all the industries not in existence today. In red oceans the market contracts, supply exceeds demand, products become commodities, brands become similar, and selection is based on price. In red oceans the rules of the game are well understood. In blue oceans are waiting to be set. In red oceans strategy is a choice between differentiation and cost –create greater value at a higher cost or a reasonable value at a lower cost. Blue oceans try to break the value/cost trade-off.

Kim & Mauborgne (2004) summarize the differences between red ocean and blue ocean strategies: compete in existing market space/create uncontested market space; beat the competition/make the competition irrelevant; exploit existing demand/create and

capture new demand; make the value/cost trade-off/break the value/cost trade-off; differentiation or low cost/differentiation and low cost.

There is a connexion between the blue ocean strategy and shaping a business model through the choices that are made. The unit of analysis in blue ocean creation is the strategic move, “*the set of managerial actions and decisions involved in making a major market-creating business offering*” (Kim & Mauborgne, 2004, p. 81).

Most blue oceans are created from within red oceans by expanding the existing industry boundaries (W. C. Kim & R. e. Mauborgne, 2005).

Kim & Mauborgne (2005) state that companies maximize the size of their blue oceans by looking to non-customers instead of concentrating on existing customers, by focusing on their commonalities instead of segmenting the market to accommodate buyer differences, and by tailoring their offerings to better meet customer preferences, a process that leads to small target markets.

Non-customers can offer more insight into how to create a blue ocean than existing customers. There are three tiers of non-customers. The first tier is formed by customers who minimally purchase an industry’s offering out of necessity but are about to leave the market. They are soon-to-be non-customers searching for something better. The non-customers of the second tier refuse to use the industry’s offerings, usually because they are beyond their means. The non-customers of the third tier have never thought of the industry’s offerings as an option.

Foster & Kaplan (2001b) introduce the concept of periphery, similar to the concept of blue oceans. For them the “nebula of economic activity” is at the periphery of the industry rather than at the centre. “*It is at the periphery that new companies are forming to exploit unmet customer needs and to capitalize on new capabilities, new technologies, and new ways of doing business*” (Foster & Kaplan, 2001b, p. 216). The periphery is the edge of a vortex of creative destruction caused by the competition between a mature business and a new one. Attackers occupy the periphery of the vortex while defenders occupy the core. The speed of the vortex is different for each industry. Companies need to understand the periphery because the firms operating at it are selling products to dissatisfied customers and they must know who they are, the reasons of their dissatisfaction and what they are doing to meet their unmet needs.

To define the periphery the authors suggest to compile information about the companies operating in it, their business strategies compared to those of the companies in the core, and the benefits they bring to their customers. It is important to anticipate the effect of the potential attack to the competitors that occupy the core, identifying those that are the most vulnerable, as well as the consequences of an attack to competitive key factors. Finally, the defenders must identify the competitors from the periphery that are likely to succeed and those that will fail, and why.

As explained in the previous epigraph, disruptive innovations may be new-market disruptions –they create a new market by targeting non-consumers- or low-end disruptions –firms compete in the low end of an established market. The first address the needs of consumers who lacked either the skills or the wealth to consume the available products through a simple product that allows them to get done the jobs they

needed to get done. New-market disruptions create new market (C. M. Christensen, Raynor, & Anthony, 2003).

Christensen, Anthony, and Roth (2004) try to identify signs indicating the emergence of new companies or new business models by looking at non-consumers (customers not consuming any product or consuming only in inconvenient settings), undershot customers, and overshot customers. Undershot customers are demanding customers in the high end of the market with tough problems to solve while overshot customers are less demanding customers in the low end of the market with fewer or less complex requirements to satisfy. They focus on the first and third groups for which new-market and low-end disruptive innovations, respectively, are appropriate. Sustaining up-market innovations are appropriate to address the needs of undershot customers.

New-market disruptive innovations for non-consumers follow two patterns: (i) bring convenience, customization, or lower prices to new customers or in new contexts of use by introducing simple, affordable products that increase access and ability by making it easier for customers who lack the money or the skills to get some jobs done; (ii) help customers to do more easily and effectively what they were already trying to get done. There are several signals that a new-market disruptive innovation is being put in place: high and increasing rate of growth in an emerging market and actions in targeted customer segments. To identify non-consumers, the authors propose to map the product delivery chain and to do market research to identify unfulfilled jobs.

There is a circular process beginning with companies targeting non-consumers. They undershot their needs and up-market sustaining innovations must be introduced. Then companies eventually overshot their customers, creating opportunities for low-end disruptive innovations. They are not good enough for more demanding customers and up-market sustaining innovations must be introduced again.

To C. C. Markides & Geroski (2005) radical new technologies are not driven by demand or immediate customer needs. They are pushed onto the market from the supply side and are not well adapted to users' needs, yielding to a wide range of product variants. Demand-driven innovations only account for incremental product and process innovations. In the early days there are too many firms and too many product variants and the market can sustain neither the firms nor the variants. There is a shakeout which results in a dominant design, a sort of product standard. The emergence of a dominant design –a process that is related to the existence of network effects- yields to the emergence of a mass market for the new product through economies of scale in production that provide cost savings and in turn price reductions. The market consolidates with the firms that bet on the winning design, and the survivors are those that were there when the market emerged, not when the product emerged. There are several tactics to establish one's product variant as the industry's dominant design: get prices down, exploit economies of scale, establish proprietary control over the designs or conversely keep the design open, gain access to key inputs that are scarce, create switching costs to lock in customers, secure suppliers of complementary assets, and win the expectations game with consumers giving to them the impression that a choice has already been made. It is also important to promote the development of a sort of complementary goods.

New customer segments and new customer needs have always existed but nobody has taken advantage of them. Competitors are too preoccupied with existing customers (Larsen, Markides, & Gary, 2002).

To identify new markets research must focus on lead users and identify and understand market and technical trends by interviewing leading experts and using pyramid networking techniques (Lilien, Morrison, Searls, Sonnack, & Von Hippel, 2002).

Disruption creates new net growth, despite disruptive innovations create new, non-competitive markets which expand and slow the growth of the established companies and finally reduce the size of the old market (Gilbert, 2003).

Disruptive technologies enlarge and broaden markets, increase the aggregate demand for the products of an industry, and provide new functionality (Utterback & Acee, 2005).

A new entrant into a market may create additional demand for the product and expand the market volume because new buyers are attracted by the increase in product variety and promotional activity, and reductions in prices. It occurs especially when the new entrant innovates in product and/or business and has a strong position or reputation in a close market (Mahajan, Sharma, & Buzzell, 1993).

Dominant design

“Technological discontinuities (...) trigger a period of ferment that is closed by the emergence of a dominant design. A period of incremental technical change then follows, which is, in turn, broken by the next technological discontinuity” (Anderson & Tushman, 1990, p. 604).

Discontinuities trigger a period of technological ferment with large product variation which persists until a dominant design emerges. Technological progress after the emergence of a dominant design consists of cumulative incremental innovation. Competition shifts from product differentiation to price. The design remains dominant until the next technological discontinuity (Anderson & Tushman, 1990; Michael L. Tushman & Anderson, 1986; Michael L. Tushman & Murmann, 1998). The basic choices of a dominant design are not revisited in subsequent designs (R. M. Henderson & Clark, 1990).

The era of ferment is a period of substantial product-class variation and uncertainty. New technologies frequently do not work well and are based on unproven assumptions. *“The era of ferment following a competence-destroying discontinuity is longer than the era of ferment following a competence-enhancing discontinuity”* (Anderson & Tushman, 1990, p. 613).

Before the emergence of a dominant design, a lot of competitors with different cost structures can coexist because the lack of standardization creates variety in market segmentation and niche markets where high-cost competitors can survive. After the emergence of a dominant design, many firms exit the industry, because the dominant design means higher volumes and scale economies (C. M. Christensen, Suárez, & Utterback, 1998).

Economies of scale do not lead to a dominant design; they follow the emergence of a dominant design (Michael L. Tushman & Murmann, 1998). The emergence of a dominant design depends on technological, market, legal, and social factors unknown in advance (Michael L. Tushman & Anderson, 1986). Dominant designs reduce product-class variation, anticipate product cost decreases, and allow compatibility and integration among systems. Manufacturers, suppliers, customers, and regulatory agencies try to decrease the uncertainty associated with product-class variation. Standards emerge when users prefer one design over others or may be established by a powerful user, an industry committee, an alliance of firms, or regulatory agencies. The emergence of a dominant design is a sociological issue rather than a technological one. Sales take off after the emergence of a dominant design. The dominant design is not necessarily the best one in terms of technical performance (Anderson & Tushman, 1990). *“Dominant designs are not driven by technical or economic superiority, but by socio-political/institutional processes of compromise and accommodation between communities of interest moderated by economic and technical constraints”* (Michael L. Tushman & Murmann, 1998, p. 12).

Dominant designs can only be known in retrospect (Michael L. Tushman & Murmann, 1998).

Dominant designs from competence-destroying discontinuities are initiated by new entrants while dominant designs from competence-enhancing discontinuities are initiated by established firms (Anderson & Tushman, 1990).

Incumbents and new entrants

Incumbents dominate incremental innovation and entrants dominate radical innovation. Incumbents are less productive than entrants to introduce radical innovations that make their existing capabilities obsolete. Incumbents are more productive than entrants to introduce incremental innovations because they build upon existing knowledge and capabilities; but these assets reduce their productivity when they attempt to exploit competence-destroying radical innovation (R. Henderson, 1993).

Incumbents almost always win the battles of sustaining innovations but almost always lose the battles of disruptive innovations (C. M. Christensen, Raynor, & Anthony, 2003).

Christensen, Anthony, & Roth (2004) state that while established companies can beat attackers with sustaining innovations, they lose to attackers with disruptive innovations.

The incumbents are motivated to ignore the markets that the entrants are motivated to enter. These are asymmetric motivations (C. M. Christensen, 2002). Asymmetries of motivation and skills (one firm's strength is another firm's weakness) between incumbents and attackers propel the process of disruption. Attackers first serve customers that appear to be either undesirable or nonexistent to the incumbent who does not respond. Attackers grow by focusing on the low end of the market while incumbents focus on serving undershot customers in the high end of the market with up-market sustaining innovations that allow them to earn premium prices. They forget overshot customers. Signals of this process are changes in customer or product mixes and plans to discontinue low-end product lines or to stop servicing old versions of products. When

the incumbent becomes aware of the situation the new opportunity is already large and it requires a different business model. The incumbent lacks the skills to serve the increasing customer base of the attacker, and they cannot be developed quickly. The process applies just for disruptive innovations. The incumbent will beat an attacker with a sustaining innovation as there will not be asymmetric motivations.

Incumbents do not have incentives to introduce radical product innovations because they may jeopardize the rents from existing products based on the current technology. Organizational filters are cognitive structures that enable the incumbents to focus on their current tasks. Organizational routines and procedures are developed to carry out repetitive tasks related to the current product efficiently. These routines in the R&D department are effective at developing incremental innovation based on the current technology, but are ineffective at developing radical innovation based on different technology. New routines should be developed. Incumbents have greater knowledge about customers and possess greater market power. If they are large, they have financial and technical capabilities but they are subject to bureaucratic inertia (Chandy & Tellis, 2000).

Established firms do not pay attention to business model innovations because they have other options to grow, as investing in adjacent markets or extending their business model internationally (C. Markides, 2006).

Firms that dominate markets are reluctant to foster radical innovations since they own specialized investments. Internal markets –high levels of internal autonomy and internal competition-, influential product champions, and future market focus –emphasis on future customers and competitors- can overcome this reluctance (Chandy & Tellis, 1998).

New-market disruptions create new consumption and they do not affect the incumbent business. But as the disruption improves, it starts to pull customers away from the incumbent, and the incumbent lacks the ability to play the new game (C. M. Christensen, Raynor, & Anthony, 2003).

Foster & Kaplan (2001b) state that during technological discontinuities attackers and not defenders have advantage. Not all attackers are winners, but most winners are attackers. But the attacker's advantage does not last as the attacker turns to act like a defender, with all the associated weaknesses. That is due to imitation and cultural lock-in.

Cooper & Schendel (1976) conducted a research on the emergence of threatening technologies and concluded that the sales of the old technology did not decline immediately after the introduction of the new technology. The old technology continued to be improved and reached its highest stage of development after the introduction of the new technology. Incumbents continued to improve the old technology, even when their sales had already begun to decline. None of them withdrew from the old technology to concentrate on the new. Most of them divided their resources to participate in both the old and new technologies. Most of the firms that tried to participate in the new technology were not successful in the long run.

Non-traditional competitors and new firms are the originators of threatening technologies (A. C. Cooper & Schendel, 1976).

To C. Markides (1998, p. 33) strategic innovators use to be new entrants. *“Established companies find it hard to innovate because of structural and cultural inertia, internal politics, complacency, fear of cannibalizing existing products, fear of destroying existing competencies, satisfaction with the status quo, and general lack of incentive to abandon a certain present (which is profitable) for an uncertain future.”* Established companies focus on the “how” and do not pay attention to the “who” and the “what”. They devote more effort to improve the operations than to question who their customers are and what product or service they want. They should discover new customers and new products by shifting emphasis to the “who” and the “what”, and they should not wait for a crisis to strategically innovate. To overcome the inertia of success they can monitor not only the financial health but also the strategic health using early warning signals, and they can artificially create a crisis.

To C. C. Markides & Geroski (2005) entrants in a new radical market may be entrepreneurs who operate in the same or similar product markets in other geographical areas –in horizontally linked markets-, entrepreneurs who operate in markets that are linked vertically to the market –suppliers into or buyers from that market-, and entrepreneurs working on technological trajectories close to the one that created the new market.

There are different ways to moderate the predicted decline in the performance of incumbent firms after a market discontinuity triggered by a radical technological innovation: invest in basic and applied research to build absorptive capacity to identify emerging technologies, use the real options perspective to guide the investment decisions under uncertainty, counteract inertia by legitimizing and institutionalizing autonomous action, establish a separated division to commercialize the new technology, leverage the downstream complementary assets to commercialize the new technology, accumulate organizational slack, et cetera (C. W. L. Hill & Rothaermel, 2003).

When a new technical subfield of an industry emerges, an incumbent can either wait until technical and market uncertainties subside or enter. It will be likely to enter if it possesses the required assets or if its core products are threatened. It will be less likely to enter if there are many potential rivals. But if its core products are threatened it will enter sooner with many potential rivals. It will enter sooner if the number of potential rivals increase with the required assets (W. Mitchell, 1989).

Advantages of expansion are: use of the same assets, cost reductions through economies of scale, scope, and learning, and improvement of the original products, and disadvantages are: sales cannibalization and resource reduction for the traditional business. Incumbents that do not expand into the new technical subfield risk losing their positions in their traditional business. Incumbents that do expand but fail may also suffer in their traditional business since they may have invested in products that failed. Incumbents that wait to see risk failing in both businesses –knocked out of the traditional business and locked out of the new technical subfield. W. Mitchell & Singh (1993) conclude that incumbents that expand survive longer and achieve greater market share in their traditional business compared to incumbents that do not expand.

Product innovation and product development

To Dougherty & Hardy (1996) sustained product innovation is the generation of multiple new products with a reasonable rate of commercial success.

Two objectives of product development are: (i) minimize time to market to reduce development costs and enter the market first and (ii) maximize fit between customer requirements and product characteristics (Berggren & Nacher, 2001).

Brown & Eisenhardt (1995, p. 366) propose an integrative model for product development: *“there are multiple players whose actions influence product performance. Specifically, we argue that (a) the project team, leader, senior management, and suppliers affect process performance (i.e., speed and productivity of product development), (b) the project leader, customers, and senior management affect product effectiveness (i.e., the fit of the product with firm competencies and market needs), and (c) the combination of an efficient process, effective product, and munificent market shapes the financial success of the product (i.e., revenue, profitability, and market share).”* Senior management provides both financial and political resources as well as subtle control.

Implicit in the model is the product champion, an individual who goes beyond his formal organization role, sells the idea to the management, and gets the management interested in the project. The presence of a product champion in product development is a success factor. There is a high correlation between top management support and degree of success. Qualities of a successful product champion are: technical competence, knowledge about the company, knowledge about the market, drive and aggressiveness, and political astuteness (Chakrabarti, 1974).

Viability of a project depends on the integration of technical and marketing issues and requires product championing to turn a new idea into a concrete new project (Burgelman, 1983c).

Day (1994) refers to championship at different levels of the firm’s organization. Champions from the lower levels of the organization have the appropriate knowledge and expertise, are closer to the sources of information about technology and market, and can help ventures remain invisible. Champions from corporate headquarters lack the knowledge and expertise, are not in close contact with technology and market information, and are not perceived as experts by others they have to influence.

Some ventures require a corporate top manager to give them resources and retroactive legitimacy. *“When ventures represent costly, radical, and potentially important strategic or cultural departures for the firm, initial legitimacy may prove essential”* (Day, 1994, p. 152). Some others require a dual-role champion, someone with knowledge and expertise and hierarchical power and control over resources as well.

“Champions are individuals who informally emerge in an organization and make a decisive contribution to the innovation by actively and enthusiastically promoting its progress through the critical organizational stages” (Howell & Higgins, 1990, p. 317). They promote the idea through informal networks and risk their position and prestige to ensure the innovation’s success.

Champions protect innovation efforts, lobby for managerial and budgetary support, and sell the innovation to key individuals (Howell, Shea, & Higgins, 1998). Senior managers provide protection from conventional forms of evaluation and organizational resistance, and access to funding (O'Connor & Rice, 2001).

Dougherty & Hardy (1996) conducted a research on innovation projects in large, mature organizations and found that successful innovation projects were due to particular individuals who used their organizational positions to access resources, establish collaborative processes, and create strategic meaning for the innovation. Individuals drew on their own networks and reputations. Organization-wide systems did not exist. *"Innovation was not the responsibility of the organization as a whole. (...). These innovative efforts were, however, one-time events: they occurred in spite of organizational systems, not because of them. (...). Innovation should be integrated into an organization's strategy. (...). The availability of resources, processes, and meaning was piecemeal in most of the organizations, and it depended primarily on individuals rather on the organizational system. Product innovation, when it did occur successfully, was powered by the operational and middle levels of the organizational hierarchies and based largely on the particular networks, connections, and experiences of lower-level managers. (...). Primary reliance on such personal power is inherently ineffective for sustained innovation. Such power is limited by the reach of individual networks, knowledge, and experience and is easily uprooted by downsizing, restructuring, and changes in senior managerial focus. Moreover, it is unavailable to young people and newcomers who lack the experience with an organization, as well as to people in organizations that have no history of building informal systems to get around formal ones"* (Dougherty & Hardy, 1996, pp. 1133-1134-1144-1146).

One of the main stages of product development is concept development. It refers to the product specifications and basic physical configuration, as well as the extended product offerings such as life-cycle services and after-sale supplies. At this stage product variants to offer and components to share across products must be decided (Krishnan & Ulrich, 2001).

New product failure is usually due to inadequate market assessment (R. G. Cooper, 1990). *"Mistaken actions by entrepreneurs mean that they have misread the market"* (Kirzner, 1997, p. 72). Numerous scopes and techniques have been delineated to counteract misreading of the market such as customer centricity (Selden & MacMillan, 2006) or customers as innovators (S. Thomke & von Hippel, 2002) or empathic design (Leonard & Rayport, 1997).

Customer centricity requires creating the products that customers want rather than creating products in search of customers. Sometimes products do not meet the customer's expectations because R&D is a centralized function run by technicians. Customer centricity can be institutionalized by organizing the company by customer segments and making the individuals responsible and accountable for the financial performance and the customer satisfaction of those segments. *"The more customer-centric you are, the longer it takes your competitors to figure out your game. (...). The detailed knowledge of customers that companies accumulate through their field learning labs confers a significant advantage over competitors. This knowledge asset is very opaque and difficult for competitors to imitate, extending sometimes very*

substantially the years of superb financial returns” (Selden & MacMillan, 2006, pp. 110-115).

Fully understanding customers' needs is a costly and inexact process. Customers may not know what they want or cannot transfer that information to manufacturers. In the customers as innovators techniques (S. Thomke & von Hippel, 2002) customers are equipped with tools to design and develop their own products. The location of the supplier-customer interface is shifted. The trial-and-error iterations are carried out by the customer. The result is increased speed and effectiveness. The location where value is created and captured changes, and companies must reconfigure their business models. Tools inform about capabilities and limitations of the manufacturing process. Customers become somewhat captive as the design developed using a tool cannot be produced by other manufacturers. It is a solution when customers ask for customized products or when development requires a lot of iterations.

Empathic design is based on observation conducted in the customer's own environment. Sometimes customers do not mention their desires because they assume that cannot be fulfilled, or are so accustomed to current conditions that they do not ask for a better solution, or cannot formulate opinions because no current product exists in the market. Empathic design can provide information about triggers of use, interactions with the user's environment –fit with user's idiosyncratic systems-, user customization, intangible attributes of the product, and unarticulated user needs. Leonard & Rayport (1997) propose to observe customers, non-customers, and customers of customers.

Kim & Mauborgne (2002, p. 80) also refer to observation: *“you should not only talk to these people but also watch them in action.”*

Product development requires flexibility because changes in customer needs and technologies during a development project must be incorporated in the design (MacCormack, Verganti, & Iansiti, 2001) and requirements may not be fully specified. In a research on product development projects, Thomke & Reinertsen (1998) concluded that only half of the requirements were specified before beginning the design and very few projects had a complete specification by then. Design changes were attributed to technical changes in components that were part of a large system and customer's inability to specify their needs at the outset of a project.

If flexibility is low because the cost of modifying a design is high, *“designers are more likely to engage in expensive and time-consuming information-gathering activities (such as forecasting and market research) aimed at minimizing the risk of design changes”* (S. Thomke & Reinertsen, 1998, p. 14). If flexibility is high designers make changes when more information is available. If certain decisions are deferred until late in the development process, the need to make changes may be eliminated.

MacCormack, Verganti, & Iansiti (2001) compare product development in stable and in uncertain and dynamic environments. Historically design was divided into sequential stages separated by milestones or gates, a process which was effective in stable environments. All information about design choices was known or could be discovered during the concept development stage. After this stage there was little flexibility to change the design. By contrast, in uncertain and dynamic environments, new information about market needs and technologies emerge as the project develops. The

ability to satisfy customer needs is unknown until customers interact with the product. Feedback from early tests is needed by handing an early and incomplete version of the product to customers and gathering feedback on the performance of existing features and being responsive to requests for additional functionality. Therefore, product concept must be kept open to change for a longer time to gain design flexibility. To achieve this, design stages must overlap. *“Rather than a sequential stage-gate process, development becomes an ‘evolutionary’ process of learning and adaptation”* (MacCormack, Verganti, & Iansiti, 2001, p. 135). While in a stage-gate model search occurs only during the early stages, in a more flexible process search occurs throughout the entire development. In uncertain and dynamic environments a lot of design changes at the end of the development is not a sign of a poor project. They propose three ways to make a process more flexible: greater investments in architectural design, earlier feedback on how the product performs as a system, and a development team with greater amounts of “generational” experience; a team with members having previously worked on multiple different project generations.

Thomke (2001) also propose to perform experiments in parallel instead of sequentially, control the variables that can diminish the ability to learn from experiments, identify the problems upstream when are easier and cheaper to solve, and do low-fidelity –and low cost- experiments at the beginning and high-fidelity –and high cost- experiments later.

Brown & Eisenhardt (1995, p. 354) emphasize the role of communication in product development: *“Communication among project team members and with outsiders stimulates the performance of development teams. Thus, the better that members are connected with each other and with key outsiders, the more successful the development process will be.”*

Several authors refer to gatekeepers as a means to overcome communication impedance, a phenomenon which occurs when individuals do not share a common coding schema and technical language and their communication is less efficient and more costly (Michael L. Tushman & Katz, 1980).

Tushman (1977, p. 602) terms special boundary roles the individuals who are able to translate between the contrasting languages and coding schemas that exist within the same firm and who *“are well connected to external information areas and are frequently consulted within the innovating unit.”* There is a two-step flow of communication with communication stars. *“Information from external areas enters innovating units in an indirect, two-step fashion.”* In the idea generation step, information about technical or marketing problems should be found outside the firm; up-to-date information on technological developments and information on user or market needs. The problem solving step requires exchange of information within the R&D department and between the R&D department and the manufacturing and sales functional areas. Implementation requires coordination and problem solving among all the functional areas. Research gatekeepers communicate with universities, professional societies, and the professional literature. Gatekeepers in the technical services areas communicate with suppliers, vendors, and customers.

Tushman & Katz (1980) also refer to the two-step communication flow. Gatekeepers – who are able to understand and translate contrasting coding schemes- gather and

understand external information and translate it into terms meaningful and useful for their internal colleagues.

Technical gatekeepers –an informal role- knock down the barriers raised by different terminology or coding schemas used inside and outside the organization. To be a gatekeeper an individual must be chosen as a source of information by internal colleagues and be in contact with external information sources (J. W. Brown & Utterback, 1985). They hypothesize that the greater the uncertainty in the environment, the greater the change in the field, and the greater the complexity of information requirements, the greater the use of external information, the greater the difference in coding schemes, and the greater the need to use gatekeepers; and that the lower the uncertainty, the greater the use of the formal roles of the organization (i.e. first-line supervisors).

Gatekeepers are the key node in the communication network of the two-step flow model of technical information flows into and out of technical groups. They gather, understand, translate, and bring in information from outside the groups, and act as a gathering point of internal information. It is not part of their job description. The R&D gatekeeper –the supervisor- was traditionally the primary reservoir of new product ideas, a role that is now shared with other positions above and below (Ettlie & Elsenbach, 2007).

Utterback (1971) summarizes the findings of previous research about communication. Training and experience, and not literature and other sources, are the primary sources of technical information employed in developing innovations. Consultation outside the work setting, focus on a single project, supervision by a director responsible for the project, isolation from colleagues, and resource limitations tend to enhance the effectiveness of idea generation. Communication about a need is initiated by someone other than the generator of the idea. Information about needs is the result of discussion with sources outside the firm, customers or potential customers. Outside sources are often expert consultants. Gatekeepers are individuals who have a communication network outside the firm –colleagues- and who are chosen as internal consultants by others within the firm.

Innovation in firms is stimulated when needs are clearly defined in the environment and there are mechanisms to communicate needs or change the perception of needs by firms (i.e., use of outside consultants, contacts with customers and competitors). The chances for successful innovation are enhanced by an environment of technical information in which information is available locally in easily accessible form, in which discussion is encouraged, and in which key members of the firm have contacts with outside technical information sources. Transfers of information occur primarily through discussion and personal contact rather than through other means. A key communication link is someone within the firm who is able to communicate both with technical information sources outside the firm and end users of information within the firm. *“The greater the degree of communication between the firm and its environment at each stage of the process of innovation, other factors being equal, the more effective the firm will be in generating, developing, and implementing new technology. (...). Idea generation and effectiveness in innovation is increased, other factors being equal, both through the use of outside consultation and technical work by members of the firm”* (Utterback, 1971, p. 85).

Competitive response

Established competitors may respond to disruptive strategic innovation by: (i) focusing on and investing in the traditional business; (ii) ignoring the innovation; (iii) disrupting the disruption; (iv) adopting the innovation and playing both games at once; and (v) abandoning the traditional business and embracing the innovation completely (Charitou & Markides, 2003). In the first response, established competitors see the innovation as a threat and invest to make the traditional business more attractive and competitive. They do not believe the innovation will eventually overtake the traditional business completely. In the second response, established competitors do not see the innovation as a threat. Customers, value propositions, activities, and skills and competences are different. In the fourth response, established companies may or may not set up a separated unit for the innovation. *“The higher the degree of decision-making autonomy given to a new unit and the greater the synergies between it and the parent company, the more effective the company is at playing two games simultaneously”* (Charitou & Markides, 2003, p. 62). The fifth response means not only embracing the innovation but scaling it up and growing it into a mass market. Discovering the new idea and scaling it up can be done by two different companies. Both tasks require different skills and competencies. Established companies have a competitive advantage in terms of skills and competencies over the pioneers to grow the innovation into a mass market. The response will depend on the established competitor motivation and ability to respond, two factors that can be plotted on a matrix. *“When the company’s motivation to respond is low –either because the disruptive strategic innovation is not growing fast or is not threatening to the traditional business- the established company should ignore it and focus on its own business no matter what its ability to respond. However, if the company’s motivation to respond is high, but its ability to adopt the innovation is low because of major conflicts, it should either attempt to destroy the innovation or embrace it completely, abandoning its traditional business. If the company’s motivation to respond is high and its ability to adopt the innovation is also high because of the absence of major conflicts, it should imitate that innovation, incorporating it into the traditional business”* (Charitou & Markides, 2003, p. 63).

The likelihood of competitive response is greater when the introducing firm is large or market dependent. The response is greater when the innovation is introduced in a small market by a large and market dependent firm. Since large firms and market dependent firms have a high entry threshold, incumbents will expect the market potential to be large. Market dependent firms have more to lose by disrupting the market (Aboulnasr, Narasimhan, Blair, & Chandy, 2008).

To McGrath & MacMillan (2000) competitive response depends on competitors’ motivation or commitment and capacity, which must be assessed before deciding the best entry strategy. They refer to four entry strategies: (i) onslaught: aggressive entry to capture the entire arena; (ii) guerrilla campaign: starting in one niche and expanding niche by niche; (iii) feint: direct attack on a focal arena that is important to the firm’s competitor in order to attract its attention from the target arena; and (iv) gambit: withdrawal from a sacrificial arena to attract the firm’s competitor attention while building a position in the target arena. They propose several steps to design the company’s entry: (i) assess motivation and capacity of the competition, (ii) map arena attractiveness, (iii) map the competitive positions of each player, (iv) decide one’s

preferred strategic inclinations, (v) assess competitors' strategic inclinations, and (vi) map each competitor's business position against one's.

To mitigate the competitive response, firms may launch the product in markets that are not strategically central to the competition, use a different distribution approach, do not advertise heavily, launch when the competition is pursuing another target market or is under a handicap (McGrath, 2000).

The way managers in a company that faces a major disruption perceive it influences how they describe it to the rest of the organization, how they organize the response, and how they allocate resources. If the disruption is perceived as a threat, too many resources are committed too early; if it is perceived as an opportunity, insufficient resources are committed as the need to change is not felt (Gilbert & Bower, 2002).

Imitation

The neoclassical economics suggests that profits of all firms in an industry converge towards the competitive equilibrium and that competition erodes excess profits. Imitation is the mechanism by which competition erodes excess profits. Industry profits deteriorate and firm profits converge to normal because companies imitate each other. And companies are so preoccupied imitating that they can not strategically innovate identifying positioning gaps and exploiting them (Larsen, Markides, & Gary, 2002).

Imitation is less expensive than innovation (Min, Kalwani, & Robinson, 2006).

McGrath & MacMillan (2000) cite three ways competitors may shorten the opportunity to exploit a new idea: imitation, matching, and blocking. A company can create three types of insulation against imitation: technical, competence-based, and relationship-based.

Teece, Pisano, & Shuen (2000) differentiate among imitation, emulation, and replication. Imitation occurs when a rival copies a firm's routines and procedures, emulation when a rival discovers alternative ways of achieving the same functionality, and replication consists of transferring or redeploying competences from one setting to another. Replication is a simple problem of information transfer only where all relevant knowledge is fully codified. Otherwise, replication can only be done by transferring people. *"If self-replication is difficult, imitation is likely to be even harder. In competitive markets, it is the ease of imitation that determines the sustainability of competitive advantage"* (Teece, Pisano, & Shuen, 2000).

Matching occurs when competitors address the same problem but using their technology (McGrath, 2000, p. 42). *"To the extent that your team can draw on firm-specific skills or know-how, you have the opportunity to establish an advantage in development cost over competitors who must start from scratch. Others are going to find it harder to imitate or match what you are doing to the extent that development requires skills, know-how and knowledge built up over time."*

"No firm can hope to sustain above normal profits indefinitely unless it can successfully and continuously innovate" (Larsen, Markides, & Gary, 2002, p. 4).

Separated business unit

Business model innovation is disruptive to established competitors because the coexistence of the two business models in the same organization is difficult (C. Markides, 2006).

C. Markides (1998) wonders how to manage two industry positions simultaneously. Setting up a separate organization? Managing the two within the same?

To Foster & Kaplan (2001a) there is a conflict between the need to control existing operations and the need to create an environment in which new ideas can flourish. Established firms experience “cultural lock-in” which explains the inability to change the corporate culture even in the face of clear market threats and manifests itself in the fear of cannibalization of the existing products, the fear of channel conflict with important customers, and the fear of earnings dilution as a result of strategic acquisitions.

To March (1991) there must a balance between exploration of new possibilities and exploitation of old certainties, since both compete for scarce resources. Firms make explicit and implicit choices between the two.

Incumbent firms must balance separation to explore with integration to exploit (Westerman, McFarlan, & Iansiti, 2006).

To Iansiti, McFarlan, & Westerman (2003) separation permits speed, agility, and focus, but makes it difficult to leverage resources from the mainstream organization, and reintegration is often a difficult process. A company can create an autonomous unit to be reintegrated later –separated-integrated approach- or an internal unit that will remain in the mainstream organization –integrated-leader approach-, or can wait until the technology converges on a dominant design and then set up an internal unit –integrated-follower approach. The integrated approach usually outperforms the separated approach. However, since later in the life cycle agility is not as important as efficiency the separated approach has fewer advantages.

Westerman, McFarlan, & Iansiti (2006) differentiate among three adaptation modes: separate-early, integrate-early, and wait-then-transform. In the latter, firms must manage the costs of inaction. Autonomous units prevent firms from inertia, resource allocation pressures, and strong exploitative biases. Innovate within existing organizations allows firms to leverage internal resources and capabilities. They propose to manage separation and integration over the innovation’s life cycle and use organization designs for variation early and organization designs for efficiency later.

Bower & Christensen (1995) refer to experimentation as a way to obtain information about non-existing or emerging markets and state that due to their resource-allocation processes it is very difficult for established companies to conduct such experiments; and one of the few ways is using start-ups for this purpose. However, they think that a separate organization created to launch disruptive innovation cannot be integrated into the mainstream organization once it has become commercially viable.

To overcome the lack of incentives of incumbents to introduce radical product innovation because they may jeopardize the rents from existing products based on the current technology, Chandy & Tellis (2000) propose that large, incumbent firms create autonomous business units with authority and responsibilities.

Dunn (1977, p. 32) refers to venture groups. *“A venture group is a separate unit with a broadly defined mission to find, develop and commercialize new products and businesses.”*

Hill & Hlavacek (1972) refer to venture teams and list their characteristics: diffusion of authority, with loose job descriptions and unstructured relationships; broad mission, with considerable discretion to pursue results and often focusing on areas of rapid growth; flexible life span, free from pressures imposed by strict deadlines.

Dunn (1977) conducted a research over ten venture groups and found that the mission statements were very broad and vague and there was too little direction; none rewarded with part of the profits or stock; the venture –if successful- was considered a career opportunity in the sense that the venture manager could become the business general manager; it was not clear what to do with people involved in case of a failure; killing reasons by senior management were: “the venture don’t fit the company structure”; lack of support from senior management manifested on over-cautiousness and hesitancy to approve projects. He recommends that senior management clearly define: types of new business areas to be investigated, products and markets excluded, corporate strengths to be capitalized upon, minimum size and growths rates for new businesses, procedures to allocate funds and people.

Govindarajan & Trimble (2005b) state that strategic experiments require forgetting – departing from the business model of the established business- and borrowing – leveraging assets and capabilities of the established business. If structure, staff, systems, and culture are choices that constitute the underlying logic that determines how an organization behaves –the organizational DNA-, the new venture and the established business have different DNA. Replication –too much borrowing- and isolation –too much forgetting- must be avoided.

Forgetting and borrowing need to be balanced (Govindarajan & Trimble, 2005a). A sole focus on forgetting would lead to isolation of the new venture while a sole focus on borrowing would lead to full integration.

The new venture should hire outsiders and should report at least one level above the established business. The company should not base the new venture performance on the established business metrics and should not judge the performance of the new venture manager against plans. Measures of the new venture performance should match its business model and their critical success factors. Accountability for the new venture managers should be based on the speed in testing the assumptions underlying the predictions rather than on performance against the same predictions. The new venture decision making should not be driven by profitability but by incremental cash flows, at least until it has become a proven and stable business. Changing business conditions within the established business should not increase the demands for profitability. The new venture should develop a unique culture with an emphasis on experimentation and learning. Borrowing physical assets, brands, and expertise confers an immense

advantage over independent start-ups, but the new venture should not borrow unless it can gain a crucial competitive advantage. Marginal cost reductions and the use of support functions are not critical to the new venture success. The new venture can borrow the outputs of the existing business, coordinate its processes with the existing business processes, and create new processes jointly with the existing business. Strong incentives tied to the established business short-term performance should be avoided. Incentives to the established business managers should be based on cooperation with the new venture or specifically based upon the long-term, combined performance of both businesses. Fair transfer prices must be set. Three perceptions by the established business should be avoided: the perception that sales will be cannibalized, the perception that a competence could be rendered obsolete, and the perception that crucial assets might be damaged (Govindarajan & Trimble, 2005a, 2005b).

C. Markides & Charitou (2004) identify four strategies to manage dual business models, two different business models in the same market: (i) separation strategy; (ii) integration strategy; (iii) phased integration strategy; and (iv) phased separation strategy. They are derived from a matrix plotting two factors: (i) how serious the conflicts between the two businesses are and (ii) how strategically similar the two businesses are. Separation is the preferred strategy when the conflicts are serious and the markets are different. Integration is the preferred strategy when the markets are similar and the conflicts are minor. When conflicts are serious and markets are similar, separate and later merge is the preferred strategy. When conflicts are minor and markets are different, build the new business inside the organization and later separate it is the preferred strategy. They studied firms that set up an independent unit for the new business model and classified them as successful and not successful. They found that firms that appointed an insider were more effective than firms that appointed an outsider, and that successful firm gave much more operational and financial autonomy than unsuccessful firms. Rather than separation or integration, activities to separate and activities to keep integrated should be the question.

Burgelman (1984a) present nine organization designs crossing two dimensions, the operational relatedness –ranging from strongly related to unrelated- and the strategic importance –ranging from very important to not important.

Ambidextrous organizations separate the new businesses in independent units, each having its own processes, structures, and cultures, but maintain tight links across units at the senior executive level (O'Reilly Iii & Tushman, 2004). They studied thirty-five breakthrough projects undertaken by companies that simultaneous had to run existing businesses. Results were tracked along two dimensions: success of the innovation and performance of the existing business. Ambidextrous organizations outperformed other organizational types in both dimensions. Tight coordination at the senior executive level enables to share resources from the existing businesses and separation ensures that the distinctive processes, structures, and cultures will not be overwhelmed. Existing businesses will not lose focus on their operations. Tushman & O'Reilly (1996, p. 24) state that organizations and managers need to be ambidextrous, with skills to compete in mature markets and skills to develop new products and services at same time, and refer to *“the ability to simultaneous pursue both incremental and discontinuous innovation and change results from hosting multiple contradictory structures, processes, and cultures within the same firm.”*

Sometimes the originators of ideas do not bring them to the market.

Chesbrough (2006) refers to a “division of innovation labor.” The companies that develop new ideas and the companies that carry them to the market may not be the same since the former partner with the latter or sell or license the ideas.

To Foster & Kaplan (2001b) the skills required to excel in the creative process are different from those required to excel in operations.

Disruptive product innovations must be created by start-up firms and scaled up by established firms (C. Markides, 2006).

Similarly, C. C. Markides & Geroski (2005) sustain that the companies that create radically new markets are not necessarily the ones that scale them up into big mass markets. Early pioneers are almost never the ones that conquer the markets. The skills and mindsets requested to colonize a new market –create a new market niche- are not only different but they conflict with those requested to consolidate the new market – transform the market niche to a mass market. *“This implies that the firms that are good at invention are unlikely to be good at commercialization and vice versa. Some firms – primarily young, small, and agile- are good at colonization. Other firms –primarily older, established, and big- are good at consolidation. (...). The evidence shows that colonization and consolidation are essentially different activities undertaken by different firms”* (C. C. Markides & Geroski, 2005, p. 10). This suggests that established firms should focus on consolidating new markets.

First mover advantages

Enter the market first is a much extended common belief. However, *“building a better business model is better than getting to market first”* (H. W. Chesbrough, 2003, p. 38) and *“late movers may avoid the pioneer’s positioning errors, be better placed to incorporate the latest technology into product designs, or be able to reverse engineer pioneer’s products and beat them on cost”* (Eisenmann, Parker, & Alstyne, 2006, p. 7).

Entering the market first is perceived as a way to reduce Dickson & Giglieriano’s (1986) “missing-the-boat risk.” The boat may be missed because the opportunity has not been identified or because a competitor has launched the product first or customer needs have changed.

Christensen, Suárez, & Utterback (1998) refer to a “window of learning” to enter the industry that exists in fast-changing industries during the period just prior to the emergence of a dominant design. In fast-changing industries the “first-mover advantages” may not hold true. Firms entering too early may spend resources in acquiring knowledge that may become obsolete and firms entering too late will face the entry barriers raised by the dominant-design producers. Firms that target new market segments –market strategy- with an architectural innovation –technology strategy- will be more successful than those that target existing markets or innovate on component technology. Market and technological strategies of a new entrant are highly interrelated and their joint effect plays an important role in its probability of survival. They hypothesize that: (i) firms that adopt the dominant design; (ii) firms that enter the industry during the “window of learning”; and (iii) firms that introduce architectural

innovations into new markets will be less likely to exit from the industry. Not to enter an established market allows the entrant to avoid direct competition with an established firm.

The market pioneer is more likely to be the first to fail when it starts a new market with a really new product. Despite this finding, firms pioneer because lower survival rates may be compensated by higher profits. Early followers can learn from the pioneer's mistakes and be less vulnerable to exit (Min, Kalwani, & Robinson, 2006).

In contrast to the common belief, to C. C. Markides & Geroski (2005) companies should not be the first to enter new radical markets. *"The success of the conquerors of new-to-the-world markets is based not on moving fast but on choosing the right time to move –and that is rarely first. In fact, the majority, if not all, of the pioneers of new markets rarely survive the consolidation of the market –most disappear, never to be heard of again. (...). A fast-second strategy would involve waiting for the dominant design to begin to emerge before moving. Meanwhile, a traditional second-mover strategy would involve waiting for the dominant design to be completely established and accepted in the market, and then producing a me-too product under that standard (...) competing on costs and low prices"* (C. C. Markides & Geroski, 2005, p. 11). A fast-second firm helps to create the dominant design since it enters the market when it is about to emerge.

Shankar, Carpenter, & Krishnamurthi (1998) refer to the so-called late mover advantage. The pioneer defines the category concept and buyer preferences for the category. Pioneer and later entrants compete on the basis of these preferences. A late mover can beat the pioneer at its own game by cutting prices or out-advertising or out-distributing the pioneer. A late mover can reshape the category by innovating in either product or strategy. Innovative late movers grow faster than pioneers, have higher market potentials, and have higher repeat purchase rates. They can slow the pioneer's growth and reduce its marketing spending effectiveness. Greater diffusion of the pioneers does not have any impact on innovative late movers.

3.7. BUSINESS MODELS

Magretta (2002, p. 4) defines business models as “*stories that explain how enterprises work.*” A business model should answer two questions: “*how do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?*” She distinguishes business models that deliver a new product or service for an unmet need from those that are just better ways of making or selling the same product or service. In the former new demand is created while in the latter there is just a shift of revenues among companies. Business models do not make sense in isolation (Magretta, 2002, p. 6): “*organizations achieve superior performance when they are unique, when they do something no other business does in ways that no other business can duplicate.*”

Initially definitions of business models referred to “e-businesses”, but recent definitions apply to all kind of businesses. Shafer, Smith, & Linder (2005) examine twelve definitions, eight of which relate specifically to “e-businesses”. They develop an affinity diagram with four major categories –strategic choices, creating value, capturing value, and the value network- identified from the twelve definitions. They define a business model as “*a representation of a firm’s underlying core logic and strategic choices for creating and capturing value within a value network. (...). A properly crafted business model helps articulate and make explicit key assumptions about cause-and-effect relationships and the internal consistency of strategic choices*” (Shafer, Smith, & Linder, 2005, p. 202). They do not conceive business models in isolation since firms create value by doing things different from the competition. Strategic innovation is an ongoing and iterative process of making strategic choices and testing the resulting business models.

Chesbrough (2006) defines business models as performing the two functions of value creation and value capture, as many other authors. But a business model is also a framework to link ideas and technology to economic outcomes. He attempts to provide with insight into the question of how companies can convert technological potential into economic value. He also details the six functions a business model must encompass: “*(i) articulate the value proposition, (ii) identify a market segment, (iii) define the structure of the value chain required by the firm to create and distribute the offering, (iv) specify the revenue generation mechanisms for the firm, and estimate the cost structure and profit potential of producing the offering, (v) describe the position of the firm within the value network, and (vi) formulate the competitive strategy by which the innovating firm will gain and hold an advantage over rivals*” (H. Chesbrough, 2006, p. 109). He classifies the business models in six kinds: (i) the company has an undifferentiated business model; it competes on price and availability and sells commodities; (ii) the company has some differentiation in its business model; it serves specific market segments; little innovation is done and without a plan, a budget, and a process; typical of technology-based start-up companies and individual inventors; (iii) the company develops a segmented business model; it competes in different market segments simultaneously; innovation is a planned activity, not a random event, and is about product and process; all functions are part of the innovation process; (iv) the company has an externally aware business model; it is already an open business model, incorporating external technologies and extending to adjacent markets; innovation is about business, not about product, process, or technology; (v) the company integrates its innovation process with its business model; the business model plays an integrative role

within the company and is aligned with the business models of its customers and suppliers; (vi) company's business model is able to change, and is changed by, the market; innovation is about the company's business model and it implies experimenting with several business model variants; the business model drives the business models of its customers and suppliers.

Business models are disruptive if they have been created to attract customers from the low end of the market by serving their needs at reduced selling prices. They have been crafted to compete profitably while pricing with discounts to steal business from established companies. *"A disruptive business model consists of a cost structure, operating processes and a distribution system in which profit margins are thinner but net asset turns are higher"* (C. M. Christensen, Johnson, & Rigby, 2002, p. 26). Therefore, low-end disruption generates new business models. *"The needs of the new customer should dictate the new business model"* (Gilbert, 2003, p. 32).

In defining business models, Casadesus-Masanell & Ricart (2007, p. 3) focus on the *"choices made by management that define 'the way the firm operates.'* (...). *A business model consists of: (i) the set of choices and (ii) the set of consequences derived from those choices."* They distinguish three types of choices –policies, assets, and governance of assets and policies- and two types of consequences –flexible and rigid. By governance of assets and policies they refer to the structure of contractual arrangements that confer decision rights regarding policies or assets. A consequence is flexible if it is sensitive to the choices that generate it and is rigid if it does not change rapidly with them.

3.8. BUSINESS MODEL REPRESENTATION

Porter (1996) offers a representation of the way the firms operate through activity-system maps.

In the research we will follow the business model representation system suggested by Casadesus-Masanell & Ricart (2007).

Since it is impossible to deal with all choices made by management and all consequences of those choices, they work with representations of business models –or models of business models- that consist of a subset of all choices and a subset of all consequences and theories. Theories are suppositions on how choices and consequences are related.

In their representations, choices and consequences are linked by arrows representing causal relationships. Graphically, choices are in bold and underlined characters, flexible consequences are plain text, rigid consequences are in boxes, black arrows represent theories of consequences derived from choices, and blue arrows theories of choices enabled from consequences.

They remark the difference between business model and business model representation. While the former refers to the real relationship, the latter refers to a model of the business model.

They also define virtuous cycles as “*feedback loops that in every iteration strengthen the value of the components of the model*” (Casadesus-Masanell & Ricart, 2007, p. 11). These feedback loops occur when choices yield consequences and consequences enable choices. A business model must possess one or more virtuous cycles since they contribute to the growth of the consequences that yield to the goals of the firm. As bodies are hard to stop because they possess kinetic energy, virtuous cycles cannot be brought to a halt. As virtuous cycles are vulnerable to the actions of competitors, business model design should take into consideration ways to weaken and, if possible, interrupt the others’ virtuous cycles as well as prevent the competitors’ actions against the firm’s own cycles (Casadesus-Masanell, 2004).

They suggest a method to build business model representations: (i) make a list of choices made by management, (ii) identify direct consequences of every choice, (iii) see whether the consequences in (ii) have consequences themselves; (iv) identify the consequences that are rigid; (v) check whether the identified consequences enable some of the choices and write the corresponding arrows; (vi) see whether there are virtuous cycles; (vii) use a high level of aggregation (“zoom out”) to see what is the essential logic that allows the model to work well.

A business model may be evaluated in isolation or in interaction. A business model is effective if it allows the organization to reach its goals under isolation. Effectiveness can be assessed considering four features (alignment to goal, reinforcement, virtuousness, and robustness). Reinforcement means that choices complement each other well, a notion similar to the Strategy notion of internal consistency. While alignment to goal is static, virtuousness is dynamic. Robustness refers to the ability of

the business model to sustain its effectiveness over time against four generic threats to sustainability: imitation, hold up, slack, and substitution.

Business model interaction is about how choices affect consequences of other players and how choices of other players affect the consequences of one's business model. There are several alternative approaches to business model interaction (game theory, Porterian positioning, et cetera). They propose an approach that combines positioning (detailed description of business models at firm's level) with game theory (only a few players are considered).

3.9. BUSINESS MODEL INNOVATION

Business model innovation is a perspective of strategy innovation, the process of changing strategy in response to changes in the competitive environment.

Business model innovation is about crafting new, original, unique, and different business models –or modifying the existing ones- with the purpose of reducing interdependence with competitors. Therefore, the process includes altering one’s business model in response to the other’s moves.

Reducing interdependence with competitors answers the **why** research question about business model innovation. Companies innovate to avoid market erosion, commoditization, competitive convergence, and competitive destruction. Competitive convergence occurs when companies copy each other’s best practises and then become indistinguishable. Competitive destruction is the result of many companies offering the same products and services to the same customers by performing the same activities. In such a situation, while customers benefit from low prices, the industry faces low returns. The term is used by Porter and cited in Magretta (2002).

Whether strategy innovation or specifically business model innovation is the result of formal analysis or trial-and-error (the **how** question) is the central theme of the research.

Before addressing the **how** question, we need to know what a good business model is. To Casadesus-Masanell & Ricart (2007, pp. 1-19) “*a good business model is one that allows the firm to attain its goals, whatever those may be*” although “*little is understood about what constitutes a superior business model.*”

Porter (1996, p. 3) defines strategic positioning as “*performing different activities from rivals’ or performing similar activities in different ways.*” Strategy is “*the creation of a unique and valuable position, involving a different set of activities*” (Porter, 1996, p. 8). Strategic position emerges from: (i) choosing a product or service variety (variety-based positioning), (ii) serving the needs of a particular customer segment (needs-based positioning), and (iii) segmenting customers by access (access-based positioning), and attempts to avoid being all things to all customers. Trade-offs and choices are needed to sustain a strategic position. Sometimes “*the essence of strategy is choosing what not to do*” (Porter, 1996, p. 10). Positioning trade-offs and choices determine the activities a company will perform –and those it will not- and how they relate to one another. Posing the example of Southwest Airlines he states that its competitive advantage comes from the way its activities fit and reinforce one another. In regards to imitation, positions built on systems of interlocked activities are harder for a rival to match and consequently far more sustainable.

The first step in market creation is to define the industry and the business correctly and to be customer oriented instead of product oriented (Levitt, 2004). Incorrectly define the industry may result in a poor business model with a constrained scope and limited market.

“*Most calls for innovation implicitly focus on the development of new products, but research suggests that innovation in business models can contribute more to shareholder return*” (Harreld, O’Reilly Iii, & Tushman, 2007, p. 31). To Govindarajan

& Trimble (2004) strategic innovation differs from technological or product innovation. In some companies success has come from innovative strategies rather than innovative technologies or products.

A strategic innovation is a departure from the current practise in at least one of three dimensions: customers, value proposition, and value chain (Govindarajan & Trimble, 2004). Strategic innovation consists of exploring fundamental questions of business definition by altering at least one of three dimensions: the identification of potential customers, the conceptualization of delivered customer value, and the design of the end-to-end value-chain architecture (Govindarajan & Trimble, 2005b).

Harrell, O'Reilly, & Tushman (2007) refer to the dimensions of business model design: customer segment selection –which to serve and which not to serve-, value proposition –differentiation from competitors' value proposition-, value capture, scope of activities, and sustainability –defence against competitor responses.

Strategic innovators change the rules of the game instead of trying to play the game better than the competition (C. Markides, 1997). Companies make choices with respect to who (the customer), what (the product), and how (cost efficient delivery of the product to the customer). The answers to the who-what-how questions form the strategy of any company. *“Strategic innovation occurs when a company identifies gaps in the industry positioning map, decides to fill them, and the gaps grow to become the new mass market”* (C. Markides, 1997, p. 12). Gaps can be new, emerging customer segments; new, emerging customer needs; and new ways of producing, delivering, or distributing existing or new products to existing or new customer segments. Gaps can also be existing customer segments neglected by other competitors or existing customer needs not served well by other competitors. Gaps can be created by external changes or proactively by the company.

In fact, business model innovators do not discover new products. They redefine the existing products and how they are supplied to the customer (C. Markides, 2006).

A breakthrough strategy consists of choosing a unique strategic position (C. Markides, 1999). Before doing it, we must generate as many options as possible. The choices must be clear. Clear choices prevent against “keeping our options open” which is the worst strategic mistake. Choices must combine into a well-balanced system. The activities we decide to perform must fit with each other and must also be in balance with each other. In regards to the who-what-how questions, strategy is also about choosing the customers we will not target, the products we will not offer, and the activities we will not perform. The answers to these questions, also *“define the terrain for which the company will not fight: the customers it will not pursue, the investments it will not make, the competitors it will not respond to”* (C. Markides, 1999, p. 3), an idea similar to Porter's “*what not to do*” and Porter's statement that a firm cannot be everything to everybody.

C. Markides (1999) states that generating as many strategic ideas as possible about the who-what-how questions increases the probability of ending up with an innovative strategy, and lists some tactics to generate ideas: question the firm's implicit assumptions and beliefs –the sacred cows- and the firm's accepted answer to the question: “What business we are in?” even creating a positive crisis, develop processes

in the organization to collect and utilize ideas from everybody, create variety in the thinking process used during formal strategic planning sessions, et cetera.

Strategy innovation is about solving problems for customers in ways that they perceive to be superior or unique compared to the present way of solving them (Tucker, 2001). One way to innovate is making companies and managers “*imagine opportunities to do more with their products and services*” (Tucker, 2001, p. 25). He presents the case of a poultry processing business that grew dramatically thanks to aggressive applying the statement “do more with chicken”. He also offers a list of ways to find opportunities in market positioning (gaps to be filled): (i) do less for less (Southwest Airlines), (ii) do more for more (luxury brands), (iii) do same for less, and (iv) do more for same (Virgin Atlantic).

Yip (2004) differentiates a change in the business model from changes in market positions. Companies use radical or transformational strategies to do the former and routine strategies to do the latter. While routine strategies may be used to increase market share one or two tens per cent, doubling or tripling requires to change the business model. Companies may desire to change their business models forced by changes in the environment that have rendered them obsolete. Radical strategies, usually implemented while the firm is still operating its current business model, involve moving from one equilibrium position to a new one through an intermediate position of disequilibria.

Mitchell & Coles (2003) apply the term business model innovation to changes in the company’s business model that make it possible to supply products or services that were previously unavailable. Other changes are considered business models improvements or replacements and do affect just few or more elements but do not mean new offerings. On the other hand, they list four strategies to outperform the competition, in a similar way than (Tucker, 2001): (i) lower prices based on cost advantages (Wal-Mart), (ii) more desirable products and services (Tiffany); (iii) more choices and information (Amazon.com), and (iv) close personal relationships (Avon).

The Blue Ocean Strategy (W. C. Kim & R. Mauborgne, 2005) is one of the most recent and powerful contributions to business model innovation. This strategy pursues the creation of blue oceans, markets in which competition is irrelevant because there are neither competitors nor rules of the game. By contrast, in red oceans companies compete with each other according to well-known competitive rules and try to capture a greater share of the existing demand. In red oceans, supply exceeds demand, the market contracts and is crowded, profits and growth are reduced, and products become commodities. Some blue oceans are created from within red oceans and some others are created as new market space. Cirque du Soleil is “the” example of the creation of a blue ocean. Its success is related to the statement “*the only way to beat the competition is to stop trying to beat the competition*” (W. C. Kim & R. Mauborgne, 2005, p. 4).

Zook & Allen (2003) suggest to find a formula for growth and use it again and again – repeatability- instead of pursuing a different source of growth every year. They propose to expand the boundaries of the company’s core business into different adjacencies (i.e. apply a successful business model to new geographic markets, new customer segments, new product categories) and manage just one new variable in each move.

Business models designers must pay attention to revenue generation. *“All business models specify what a company does to create value, how it is situated among upstream and downstream partners in the value chain, and the type of arrangement it has with its customers to generate revenue. (...). Many Internet-based enterprises failed because they had not clearly thought through their model –particularly, how money would be made”* (Rappa, 2004, pp. 34-35).

Casadesus-Masanell & Ricart (2007) differentiate between strategy and tactics. Strategy is a plan of action to craft a business model where policies, assets, and governance structures are chosen and constitute sometimes commitments hard to reverse. Tactics are courses of action that take place within the bounds of the firm’s business model. While strategic interaction –competition through business models- results in modifications in the business models of the players, tactical interaction is constrained by the bounds set by the business models. Therefore, the interdependence of the firms competing in the same industry is endogenous, since it depends on the choices set by the firms when configuring their business models.

4. THEORY DEVELOPED BEFORE THE RESEARCH (INITIAL THEORY)

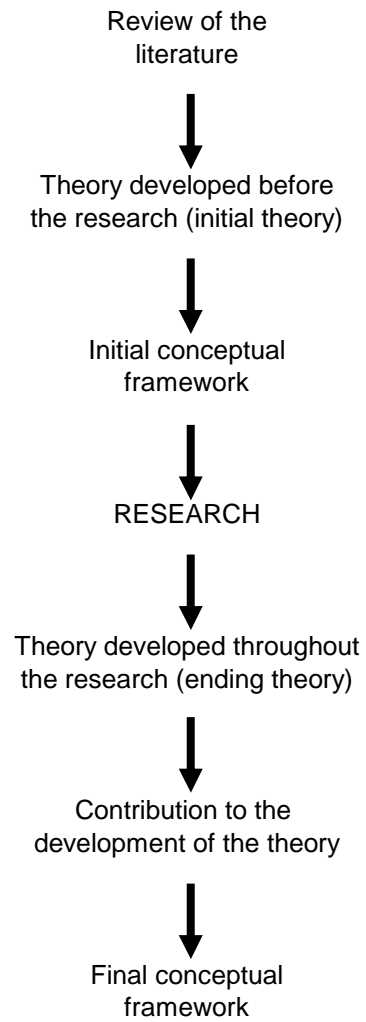
This chapter consists of three sections. The first is devoted to define what theory is and how theory is built. We rely on two contributions (Bacharach, 1989; C. M. Christensen, 2006) to establish a common language to be used in the research.

In the second section there is a summary of the initial theory, the theory developed before the research, which is the outcome of the review of the literature. It is the theory developed up to now by several authors, it has been compiled in the review of the literature, and it will be the basis for the research. The initial theory will be compared with the ending theory, the theory developed through the research. The difference between the initial and the ending theory will be the contribution of the research. This process is schematized in figure **4.1. Research Strategy**.

The objective of the summary of the initial theory is twofold: (i) make possible the assessment of the research contribution by comparison between the initial and the ending theory; and (ii) lead to the theoretical propositions to be confirmed, challenged, or extended of chapter **6. Research Design**.

The third section is devoted to define the constructs to be used in the research. The constructs and their definitions are also the outcome of the review of the literature. The constructs are to be used to codify the semi-structured interviews of the three case studies of the research.

Figure 4.1. Research Strategy



4.1. WHAT THEORY IS AND HOW THEORY IS BUILT?

A theory is “a system of constructs and variables in which the constructs are related to each other by propositions and the variables are related to each other by hypotheses. The whole system is bounded by the theorist’s assumptions” (Bacharach, 1989, p. 498). Constructs are broad mental configurations of a given phenomenon; they are approximations and cannot be observed directly. Variables are operational configurations derived from constructs; they are capable of measurement. Propositions act on a more abstract level and hypotheses –also derived from the propositions- act on a more concrete level. The primary goal of a theory is to answer the questions of **how**, when, and **why**. Theories are not descriptions, which try to answer the question of what.

The application of theories is constrained by boundaries. Some are assumptions which include the implicit values of the theorist. Other boundaries are explicit restrictions regarding space and time. They restrict the empirical generalizability of the theory. Theories unbounded in both space and time have a higher level of generalizability than those bounded in either or both space and time. Generalizability requires more abstraction and less detail.

Any theory must be evaluated upon two primary criteria: (i) falsifiability: it determines whether a theory is constructed such that empirical refutation is possible; and (ii) utility: it can both explain and predict.

To Christensen (2006) theory is built in two stages: the descriptive and the normative. In the descriptive stage the process consists of two portions: inductive and deductive. In turn, the inductive portion consists of three steps: observation, categorization, and association of attributes and outcomes. Constructs are the result of observation, frameworks and typologies are the result of categorization, and models are the result of association. Research relies primarily on field-based observation. In the deductive portion of the descriptive stage, researchers test the hypotheses inductively formulated applying statistical analysis and mathematical modelling to check whether the same correlation exists between attributes and outcomes using a different set of data.

To Eisenhardt & Graebner (2007, p. 25) “*inductive and deductive logics are mirrors of one another, with inductive theory building from cases producing new theory from data and deductive theory testing completing the cycle by using data to test theory.*”

The theory is improved thanks to anomalies, outcomes the theory cannot explain. Anomalies force researchers to revisit the entire process and modify the prior associations of attributes and outcomes until the anomaly is explained. Anomalies are neither literal nor theoretical replications of a theory (Yin, 2003). A literal replication occurs when the predicted outcome is observed. A theoretical replication occurs when an unusual outcome occurs, but for reasons that can be explained by the model. An anomaly is an exception to a theory’s predictions.

The transition from descriptive to normative theory is done by moving from statements of correlation to statements of what causes a particular outcome.

“We cannot judge the value of a theory by whether it is true. (...). The value of a theory is assessed by its predictive power. (...). Normative theory has much greater predictive power than descriptive theory does” (C. M. Christensen, 2006, pp. 42-43).

Since the expected main contribution of the research is to provide with insight into the questions of **how** and **why** companies craft successful business models, the research is about developing theory rather than testing or confirming theory. Specifically, the purpose of the research is not to test any hypothesis but to confirm, challenge, or extend some theoretical propositions about business model innovation through the study of three cases.

Therefore, the research will be limited to a set of constructs and their linking propositions (Bacharach, 1989) and to the inductive portion of the descriptive stage of Christensen’s (2006) process of theory building.

Identification and measure of variables and their linking hypotheses (Bacharach, 1989) and the deductive portion of Christensen’s (2006) descriptive stage –hypotheses testing– are out of the reach of the current research, as well as the transition from descriptive to normative theory.

Potential sources of anomaly in the case studies, if identified, will be highlighted in the case study reports.

4.2. INITIAL THEORY

The statements of the initial theory, the theory developed before the research, are derived from the review of the literature and include the contributions of scholars who have previously worked on the research problem and have tried to answer the research questions.

The research will be based upon such initial theory and will allow us to assess the extent of the research contribution by comparison with the ending theory, the theory developed through the research.

The initial theory will yield us to the theoretical propositions to be confirmed, challenged, or extended of chapter **6. Research Design**.

The initial theory states that:

Opportunity recognition

- A business opportunity is a match between an unfulfilled market need and a solution that satisfies the need (O'Connor & Rice, 2001). Business opportunities are created by earlier entrepreneurial errors (Kirzner, 1997).
- A novel business model requires the recognition of a business opportunity (MacMillan & McGrath, 2004).
- Business opportunities may be recognized by operational-level managers (Burgelman, 1988) or top managers (Day, 1994).
- Opportunity recognition relies on personal intuition (C. M. Christensen, 2002) and depends on individual initiative and capacity and informal systems rather than on firm's routine practises and procedures (O'Connor & Rice, 2001) or analysis (Drucker, 2002).
- Systematic search for opportunities is not possible (Kirzner, 1997) and opportunities are discovered without actively searching for them (Shane, 2000). Opportunities can only be recognized by systematic search constrained to a finite domain, the entrepreneur prior knowledge (Fiet, Nixon, Gupta, & Patel, 2006; C. C. Markides & Geroski, 2005).
- Prior specific knowledge is a pre-requisite for opportunity recognition, and entrepreneurs are not equally competent to recognize a particular opportunity since knowledge derived from experience is idiosyncratic (Fiet, 2007; Shane, 2000).

Sustained competitive advantage

- To enjoy a sustained competitive advantage firms must build a better business model (Berggren & Nacher, 2001). Goodness or superiority of a business model refers to its effectiveness to allow the firm to attain its goals (Casadesus-Masanell & Ricart, 2007).
- A competitive advantage is sustained if current and potential competitors cannot duplicate it (Barney, 1991) thanks to barriers to imitation created by causal ambiguity –competitors neither understand the causal relationships between actions and outcomes nor the competences on which the advantage is based- (Reed & DeFillippi, 1990).

Strategy making: formal and informal

- Strategy is about making clear and explicit choices, different from those of the competitors (C. C. Markides, 1999a), based on prior knowledge about the relationships between actions and outcomes (Duncan & Weiss, 1979). Strategy is about creating a unique position, involving a different set of activities, and choosing what not to do (C. Markides, 1999; Porter, 1996).
- There is a continuum of formal and informal strategy making (Fredrickson & Mitchell, 1984; Mintzberg & McHugh, 1985; Pearce Ii, Freeman, & Robinson Jr, 1987).
- Formal and informal strategy making are or are not substitutes for one another (Barney, 1991; Pearce Ii, Freeman, & Robinson Jr, 1987).
- Formal and informal strategy making depends on the stage of evolution (Foster & Kaplan, 2001a; C. C. Markides, 1999b; Mintzberg, 1973; Regnér, 2003; Sarasvathy, 2001), on the settings (Barney, 1991; S. L. Brown & Eisenhardt, 1995; Fredrickson & Mitchell, 1984; Mintzberg & McHugh, 1985; Regnér, 2003; Sarasvathy, 2001), or on the nature of innovations (Bower & Christensen, 1995; Burgelman, 1983c; C. M. Christensen, Johnson, & Rigby, 2002).
- Formal strategy making is rational (S. L. Brown & Eisenhardt, 1995; Fredrickson, 1984; Fredrickson & Mitchell, 1984; Hart, 1992) and involves causation processes (Sarasvathy, 2001). Mintzberg's emergent strategy and Burgelman's autonomous strategic behavior are examples of informal strategy making. Informal strategy making involves effectuation processes (Sarasvathy, 2001).

Formal strategy making

- Formal strategy making is comprehensive, exhaustive, and analytical in approach. All alternatives are considered, and all consequences are identified and evaluated, and their costs and risks weighted (Hart, 1992; Mintzberg, 1973).
- Goals are identified beforehand (Fredrickson & Mitchell, 1984), quantified (Mintzberg, 1973), and explicitly set (Fredrickson & Mitchell, 1984; Hart, 1992); environment, industry, market, competitors, and portfolio are analyzed (Fredrickson & Mitchell, 1984; Hart, 1992; Sarasvathy, 2001); internal capabilities and strengths and weaknesses are assessed (Fredrickson & Mitchell, 1984; Hart, 1992; Mintzberg, 1973).
- The outcome of formal strategy making is a detailed plan to achieve the goals (Fredrickson & Mitchell, 1984; Hart, 1992).

Analysis and planning

- Analysis and planning reduce or suppress improvisation (Moorman & Miner, 1998b).
- Conventional market research is not appropriate for disruptive innovation since markets do not yet exist (Bower & Christensen, 1995; Busenitz & Barney, 1994; C. M. Christensen, Raynor, & Anthony, 2003; Leifer, O'Connor, & Rice, 2001; Lynn, Morone, & Paulson, 1996).

Informal strategy making

- Strategy can also emerge through the learning from a process of experimentation (Burgelman, 1984b, 1988; C. C. Markides, 1999b; Mintzberg, 1978, 1994).

- Informal strategy making relies basically on trial-and-error (Regnér, 2003), but may also rely on intuition (Crossan & Sorrenti, 1997), improvisation (S. L. Brown & Eisenhardt, 1995; Eisenhardt & Tabrizi, 1995; Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b), and seat-of-the-pants activities (Sarasvathy, 2001).

Trial-and-error

- The purpose of experimentation is to convert assumptions about unknowns into knowledge at the lower possible cost (Block & MacMillan, 1985; MacMillan & McGrath, 2004).
- Learning consists of acquiring knowledge about action-outcome relationships and the effects of environmental events on these relationships. Learning occurs by analyzing disparities between predictions and outcomes (Duncan & Weiss, 1979; Garud & Van De Ven, 1992; Govindarajan & Trimble, 2004, 2005a; Van De Ven & Polley, 1992).
- The ultimate purpose of learning is change of behavior (Huber, 1991) and action (Starbuck & Hedberg, 2001).
- The only learning from a negative outcome is what not to do; there is no learning about actions that lead to a positive outcome (Van De Ven & Polley, 1992).
- Learning depends on the interpretation of feedback from experimentation which is idiosyncratic (Woo, Daellenbach, & Nicholls-Nixon, 1994).
- Discovery-driven planning (C. M. Christensen, Raynor, & Anthony, 2003; MacMillan & McGrath, 2004; MacMillan, Van Putten, McGrath, & Thompson, 2006; McGrath & MacMillan, 1995), theory-focus planning (Govindarajan & Trimble, 2004), and stage-gate systems (R. G. Cooper, 1990) are efforts to plan for trial-and-error learning.
- Real options reasoning can be used to stage the financial commitment in uncertain and unpredictable settings (Bowman & Hurry, 1993; H. Chesbrough & Crowther, 2006; Gilbert & Bower, 2002; MacMillan & McGrath, 2002, 2004; MacMillan, Van Putten, McGrath, & Thompson, 2006; McGrath, 2000; van Putten & MacMillan, 2004).

Business models

- Business models consist of the set of choices and the set of consequences derived from those choices. Choices define the way the firm operates (Casadesus-Masanell & Ricart, 2007).
- Virtuous cycles strengthen the value of the components of one's business model while weaken the value of the components of rivals' business models (Casadesus-Masanell & Ricart, 2007).
- Business models should deliver a new product for an unmet need –and, therefore, create new demand-, be unique, and difficult to duplicate (Magretta, 2002).

Business model innovation

- Business model innovation consists of making choices about three dimensions: customers, value proposition, and value chain (Govindarajan & Trimble, 2004, 2005b; Harreld, O'Reilly Iii, & Tushman, 2007; C. Markides, 1997).

Radical innovation

- Radical innovations are products new for the firm and new in the market that dramatically shift the price-performance frontier (C. M. Christensen, Anthony, & Roth, 2004; Gatignon, Tushman, Smith, & Anderson, 2002; Leifer, O'Connor, & Rice, 2001; O'Connor & Rice, 2001).
- Radical innovations are pushed from the supply; they are not driven by the demand or customer needs (C. Markides, 2006; C. C. Markides & Geroski, 2005).
- Radical innovations are competence-destroying –destroy the existing competences- and build on new competences (Dewar & Dutton, 1986; Gatignon, Tushman, Smith, & Anderson, 2002). Architectural innovations are both competence-enhancing and competence-destroying –build on both old and new competences- (R. M. Henderson & Clark, 1990).

Disruption or a discontinuity

- Disruptive innovations may be low-end –disrupt other's business model from the low end by targeting overshot customers- or new market –create a new market by targeting non-consumers- (C. M. Christensen, 2002; C. M. Christensen, Anthony, & Roth, 2004; C. M. Christensen, Johnson, & Rigby, 2002; C. M. Christensen, Raynor, & Anthony, 2003; Gilbert, 2003).

Market creation

- Business models must enlarge the market by attracting new customers or by encouraging existing customers to consume more (C. Markides, 2006). Business models must create a new market space (W. C. Kim & R. e. Mauborgne, 2005) by targeting non-customers (W. C. Kim & R. Mauborgne, 2005).

Incumbents and new entrants

- Radical innovation is dominated by new entrants (Anderson & Tushman, 1990; C. M. Christensen, Anthony, & Roth, 2004; C. M. Christensen, Raynor, & Anthony, 2003; Foster & Kaplan, 2001b; R. Henderson, 1993; C. Markides, 1998).

4.3. CONSTRUCTS

The following constructs are to be used to codify the semi-structured interviews of the three case studies of the research.

These are the constructs that appeared reiteratively in the selected references of the review of the literature and the constructs that formed the conceptual frameworks of chapter 2. **Initial Conceptual Framework.**

The definitions of the constructs are also the outcome of the review of the literature.

Opportunity recognition: a business opportunity –a match between an unfulfilled market need and a solution that satisfies the need- is recognized if it is identified by an entrepreneur.

Sustained competitive advantage: a competitive advantage is sustained if current and potential competitors cannot duplicate it thanks to barriers to imitation created by causal ambiguity.

Strategy making: strategy is about making clear and explicit choices, different from those of the competitors, based on prior knowledge about the relationships between actions and outcomes.

Formal strategy making: formal strategy making consists of setting explicit goals and establishing a detailed plan to achieve them through external and internal analysis and assessments and after considering all the alternatives and their consequences.

Analysis and planning: in formal strategy making firms conduct analysis to produce plans to achieve goals.

Analytical tools and frameworks: techniques that facilitate analysis and thinking, and that usually result in graphic representations (canvasses, matrixes, grids, et cetera).

Informal strategy making: informal strategy making consists of forming strategy through the learning from a process of trial-and-error.

Trial-and-error: in informal strategy making firms rely basically on trial-and error to convert assumptions about unknowns into knowledge at the lower possible cost.

Learning: learning consists of acquiring knowledge about action-outcome relationships and the effects of environmental events on these relationships. Learning occurs by analyzing disparities between predictions and outcomes.

Business model: a business model consists of the set of choices and the set of consequences derived from those choices.

Business model innovation: business model innovation consists of creating a new business model or modifying an existing business model.

Entrepreneurship: entrepreneurship relates to opportunity recognition and commercial exploitation of the recognized opportunity.

Absorptive capacity: capacity to exploit external knowledge, which depends on the prior related knowledge accumulated.

Radical innovation: a radical innovation is a new value proposition that dramatically shifts the price-performance frontier.

Disruption or a discontinuity: a disruption or a discontinuity is the effect of a radical innovation.

Market creation: market is created when non-consumers start consuming.

Dominant design: dominant design is the industry's standard that emerges after a period of product-class variation and uncertainty triggered by a disruption.

Incumbents and new entrants: incumbents are established firms that dominate a mature market; new entrants are firms that pioneer a radical innovation that may disrupt the mature market.

Product innovation and product development: product innovation is the generation of products with commercial success; product development is a process aimed at optimizing product innovation.

Competitive response: competitive response refers to the incumbent's response to the new entrant's attack.

Imitation: imitation occurs when a rival copies a firm's routines and procedures.

Separated business unit: a separate business unit can be set up to overcome the conflicts of managing two business models within the same organization.

First mover advantages: first mover advantages refer to the advantages of entering a new market first.

5. RESEARCH STRATEGY: CASE STUDY

This section is mainly based on Yin (2003).

We will use the case study to address the research problem because *“case studies are the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on contemporary phenomenon within some real-life context”* (Yin, 2003, p. 1).

Case studies can be exploratory, descriptive, or explanatory. Case studies addressing “how” and “why” questions are more explanatory.

Case studies rely on multiple sources of evidence, with data needing to converge in a triangulating fashion, and request a prior development of theoretical propositions to guide data collection and analysis.

The research design is the logic sequence that connects the empirical data to the initial research questions and, ultimately, to the research conclusions. It describes the process of collecting, analyzing, and interpreting the data; and specifically the logic linking the data to the theoretical propositions and the criteria for interpreting the findings.

Theory development prior to the collection of any data is part of the research design, and differentiates case studies from other related methods.

Case studies are generalizable to theoretical propositions and not to populations or universes. The case study does not represent “a sample,” and the goal should be to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization). Generalization of the case study results occurs thanks to the development of theoretical propositions. A previously developed theory is used as a template with which to compare the empirical results of the case study. *“If two or more cases are shown to support the same theory, replication may be claimed. The empirical results may be considered yet more potent if two or more cases support the same theory but do not support an equally plausible, rival theory”* (Yin, 2003, p. 33).

Eisenhardt & Graebner (2007, p. 27) state that *“the purpose of the research is to develop theory, not to test it, and so theoretical (not random or stratified) sampling is appropriate. Theoretical sampling simply means that cases are selected because they are particularly suitable for illuminating and extending relationships and logic among constructs. Again, just as laboratory experiments are not randomly sampled from a population of experiments, but rather, chosen for the likelihood that they will offer theoretical insight, so too are cases sampled for theoretical reasons, such as revelation of an unusual phenomenon, replication of finding from other cases, contrary replication, elimination of alternative explanations, and elaboration of the emergent theory.”*

Yin (2003, p. 37) lists four tests to judge the quality of the research design: (i) construct validity; (ii) internal validity; (iii) external validity; and (iv) reliability. Internal validity refers to causal relationships between variables. External validity refers to analytical generalization in which the researcher tries to generalize a set of findings to some broader theory. A theory must be tested by replicating the findings in a second or even a

third case for which the theory has specified the occurrence of the same results. After such direct replications, *“the results might be accepted as providing strong support for the theory, even though further replications had not been performed. This replication logic is the same that underlies the use of experiments (and allows scientists to cumulate knowledge across experiments).”*

To Christensen (2006, p. 52), *“a theory’s internal validity is the extent to which (1) its conclusions are unambiguously drawn from its premises; and (2) the researchers have ruled out all plausible alternative explanations that might link the phenomena with the outcomes of interest. (...). When there is a possibility another researcher could say, ‘Wait a minute. There is a totally different explanation for why this happened,’ we cannot be assured of a theory’s internal validity. (...). The external validity of a theory is the extent to which a relationship observed between phenomena and outcomes in one context can be trusted to apply in different contexts as well.”*

To successfully deal with the problems of establishing construct validity and reliability of the case study evidence, Yin (2003, p. 105) recommends using multiple sources of evidence through a process of triangulation, and maintaining a chain of evidence. This latter consists of allowing an external reader *“to follow the derivation of any evidence”* from the initial research questions to the case study conclusions, and backwards.

The collected data must be analyzed in view of the theoretical propositions which were drawn from the review of the literature. The original theoretical propositions may or should include rival propositions. *“The proposition helps to focus attention on certain data and to ignore other data”* (Yin, 2003, p. 112).

Case studies may be single-case or multiple-case. In a multiple-case study, every case should serve a specific purpose within the overall scope of inquiry, the cases should be considered multiple experiments, and a replication logic should be followed: a significant finding from a single experiment should be replicated by conducting more experiments. Replications can be literal –results are similar- or theoretical –results are contrasting but for predictable reasons. If the cases are contradictory, the initial propositions must be revisited. The initial theoretical framework should state the conditions under which a particular outcome is likely to occur –literal replication- and not likely to occur –theoretical replication. This framework is the way for generalizing to more cases.

Figure 2.5 in Yin (2003, p. 50) shows the replication approach to multiple-case studies. Conclusions of each individual case need replication by other individual cases. The report of each individual case should indicate how a particular proposition is demonstrated –or not demonstrated. The cross-case report should indicate the replications, both literal and theoretical. Feedback loops represent discoveries occurred during the conduct of the individual case studies that lead to replace one or more cases, or to change the research design or to reconsider the original theoretical propositions.

“Multiple cases enable comparisons that clarify whether an emergent finding is simply idiosyncratic to a single case or consistently replicated by several cases” (Eisenhardt & Graebner, 2007, p. 27).

Figure 5.1. Reproduction of figure 2.5 in Yin (2003, p. 50)

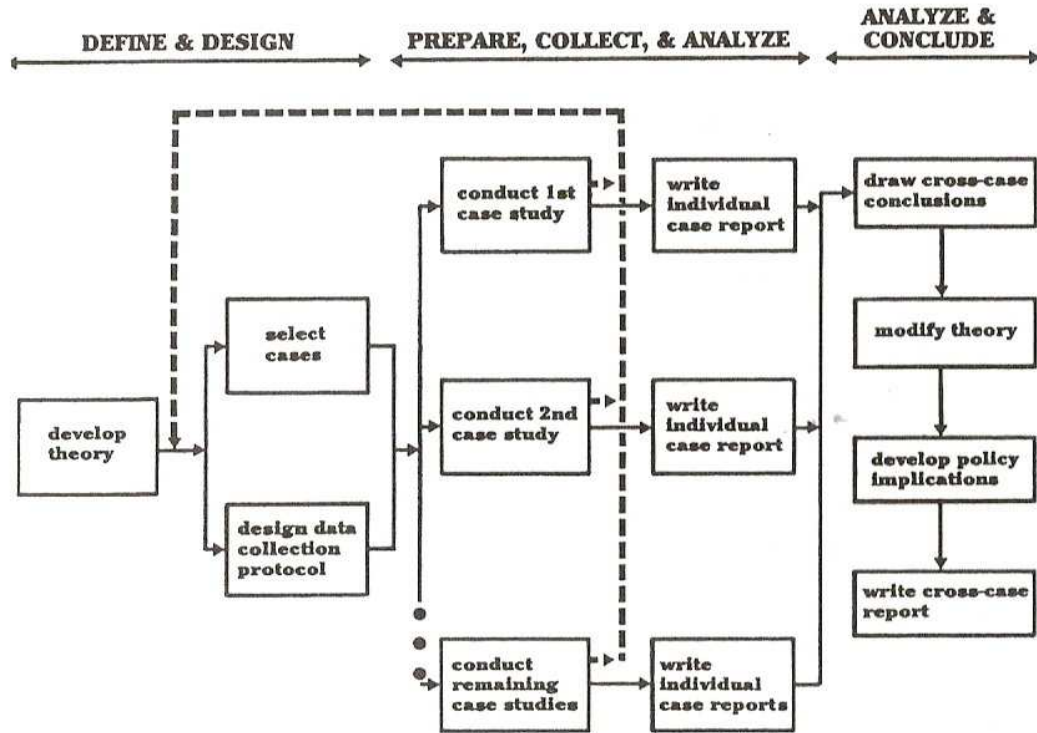


Figure 2.5 Case Study Method
SOURCE: COSMOS Corporation.

6. RESEARCH DESIGN

The research design is the logic sequence that connects the empirical data to the initial research questions and, ultimately, to the research conclusions. It describes the process of collecting, analyzing, and interpreting the data; and specifically the logic linking the data to the theoretical propositions and the criteria for interpreting the findings (Yin, 2003).

The research questions –which constitute the heading of the research design- are: (i) **how** do entrepreneurs and companies create and design new business models and (ii) **why** do they do that.

The outcomes of the review of relevant literature have been: (i) the so-called initial theory, the theory developed before the research (see chapter 4. **Theory Developed before the Research (Initial Theory)** for further detail); (ii) a list of constructs and their definitions (see chapter 4. **Theory Developed before the Research (Initial Theory)** for further detail); and an initial conceptual framework –two visions and three versions- built from the list of constructs (see chapter 2. **Initial Conceptual Framework** for further detail). The constructs of the conceptual framework are linked together through theoretical propositions that describe the relationships between them. As said before, the theoretical propositions related to business model creation (a business model... is developed solely through analysis and planning / is the sole result of learning through trial-and-error / is developed through analysis and planning and refined using the learning through trial-and-error) are the bulk of the research. However, other theoretical propositions have been derived from the initial theory and are listed in section 6.1 **Theoretical Propositions**.

The empirical data collected from the multiple-case study will be analyzed and interpreted in view of the theoretical propositions of section 6.1 **Theoretical propositions**. From the analysis and interpretation of the data we expect: (i) to confirm, challenge, or extend the theoretical propositions; (ii) to learn how each firm's business model was created; and (iii) to obtain a variety of additional findings about strategic innovation.

However, the data must be first collected and later put in a workable format before the analysis and interpretation.

The first step consists of gathering information about the firm. Potential sources of information are the corporate website, academic cases, books, et cetera. The second step consists of preparing a questionnaire based on the information gathered and taking into consideration the research questions and the theoretical propositions. Conducting the semi-structured interviews would be the third step. The transcriptions of the interviews must be codified using the list of constructs –fourth step- and the information classified in categories –fifth step-, being the categories: (i) information related to the business model choices, consequences, and virtuous cycles, and (ii) information related to the firm's approach to strategic innovation. Coding and classifying the transcriptions allows the researcher to proceed with the sixth step, the conversion of the transcriptions in a written case study, a workable format which facilitates storage, retrieval, and management of the collected data.

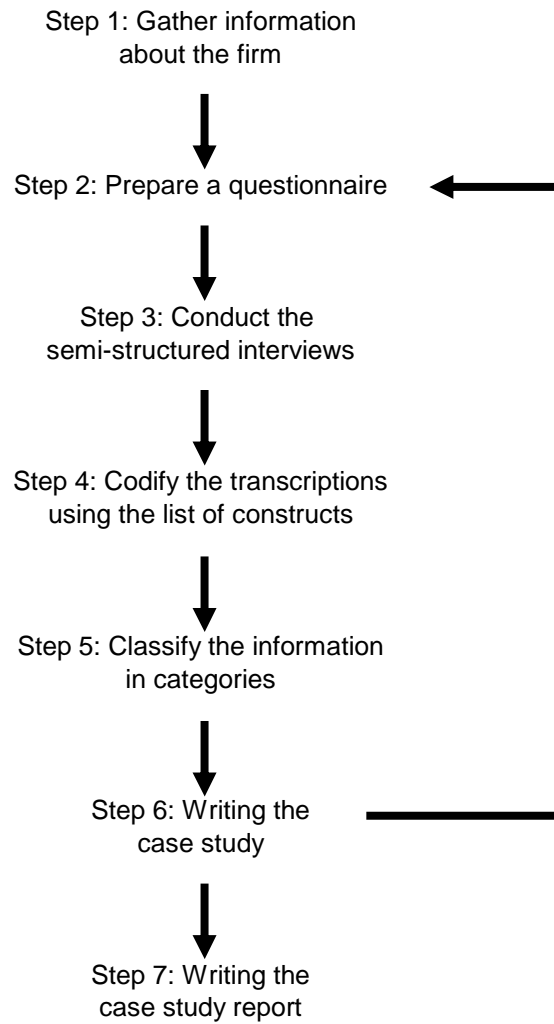
From the written case studies (see chapter 7. **Case Studies**) we can write –seventh step– the case study reports (see chapter 8. **Case Study Reports**), in which we summarize the analysis and interpretation of the data in three sections: (i) the analysis of the data in view of the theoretical propositions; (ii) how the main features of the business model were created; and (iii) the learning from the case study.

Figure 6.1. **Research Design** shows the steps and the entire process which is ongoing and iterative.

During the research we will follow figure 2.5 in Yin (2003, p. 50) reproduced in chapter 5. **Research Strategy: Case Study**.

Finally, the unit of analysis, also part of the research design, will be the firm's business model; despite the semi-structured interviews will also address issues concerning the entire firm. Within AUSA we will refer to three business models, the "PTV business model," the "dumpers business model," and the "EcoSite business model;" within Atrápalo.com we will refer to two business models, the "urban leisure business model" and the "holiday leisure business model;" Naturhouse constitute a single business model.

Figure 6.1. Research Design



6.1. THEORETICAL PROPOSITIONS

The theoretical propositions to be confirmed, challenged, or extended derived from the initial theory are:

1. Opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems.
Rival proposition: Opportunity recognition relies on firm's routine practises and procedures.
2. Opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge.
Rival proposition: Systematic search for opportunities is not possible and opportunities are discovered without actively searching for them.
3. The greater the barriers to imitation created by causal ambiguity, the greater the sustained competitive advantage and, hence, the greater the goodness or superiority of a business model.
4. The more clear and explicit the choices of a business model, and the more differing from those of the competitors; and the more strengthening the virtuous cycles, the greater the goodness or superiority of the business model.
5. The degree of formality depends on the stage of evolution, on the settings, or on the nature of innovation.
Rival proposition: The degree of formality does not depend on the stage of evolution, on the settings, or on the nature of innovation.
6. Good or superior business models are developed through analysis and planning using analytical tools and frameworks and refined through the learning from trial-and-error.
Rival proposition 1: Good or superior business models are developed solely through analysis and planning using analytical tools and frameworks.
Rival proposition 2: Good or superior business models are crafted using the learning from trial-and-error.
7. Formal and informal strategy making are not substitutes for one another.
Rival proposition: Formal and informal strategy making are substitutes for one another.
8. Trial-and-error learning is planned.
Rival proposition: Trial-and-error learning is not planned.
9. Good or superior business models deliver a new solution for an unmet market need.
Rival proposition: Business models can be good or superior without delivering a new solution for an unmet market need.

10. Good or superior business models create a new market by targeting non-consumers.

Rival proposition: Business models can be good or superior without creating a new market by targeting non-consumers.

11. Radical innovation is dominated by new entrants.

Rival proposition: A radical innovation may be dominated by an incumbent.

7. CASE STUDIES

This chapter is devoted to the written case studies in which we compile all the relevant information about the three firms we have studied.

The information was collected from semi-structured interviews held with managers of the three firms. Prior to the semi-structured interviews we prepared a questionnaire using information gathered from several sources. In section **7.3 Research design** of each written case study we mention the informants and the initial sources of information.

The purpose of the written case studies is put the information collected in a workable format before the analysis and interpretation of chapter **8. Case Study Reports**.

In the written case studies we included the data collected from the semi-structured interviews as well as data from the sources retrieved.

Figure **6.1. Research Design** shows the steps and the entire process which is ongoing and iterative.

The questionnaires are included as annexes in the written case studies.

The transcriptions of the interviews have been codified using the software ATLAS.ti 5.0. We have used the same software to codify, whenever possible, the pieces of information that constituted the initial sources retrieved to prepare the questionnaires. Codification has been done using the constructs of section **4.3. Constructs**.

We have used additional constructs to codify the data related to the business models. Specifically, we have used: (i) choice; (ii) “what not to do”; and (iii) consequence of choice.

A part from codifying the information, we have also classified it in two categories: (i) information related to the business model choices, consequences, and virtuous cycles, and (ii) information related to the firm’s approach to strategic innovation.

The coding and classification have allowed us to convert such huge volume of diverse information into written case studies, a workable format which facilitates storage, retrieval, and management of the collected data.

We have then analyzed and interpreted the data contained in the written case studies, and the findings are summarized in the case study reports of chapter **8. Case Study Reports**.

In the written case studies, direct quotes of informants are indicated in italics and the informant is explicitly indicated when the direct quote is considered especially relevant.

The information classified under the business model category was used to identify choices, consequences derived from choices, and virtuous cycles, and to map the business model representation. Choices are explained in the tables included as annexes in the written case studies. Epigraphs **7.5 ... business model representation** show and

explain the representation of the business models following Casadesus-Masadell & Ricart (2007) system of business model representation.

7.1. AUSA: VEHICLES FOR NICHE MARKETS

7.1.1. Company description

AUSA designs, manufactures, and distributes machinery for the construction industry. It is a family-owned company and was founded in 1956. With sales in 2007 of 150 million € and 500 employees, the size of the company has doubled in the last four years. Although its product portfolio is wide, it has three main product lines: dumpers, forklifts, and multi-service vehicles, the first two accounting for the major part of the sales volume (60% and 38%). AUSA sales outside of Spain account for the 40% of the sales.

AUSA sells through affiliates or distributors or concessionaries. They have 40 distributors in Spain and 225 out of the domestic market in 70 countries. The distributors also supply spare parts and provide maintenance services to their clients.

AUSA Trading is an attempt to extend AUSA product range with product lines designed and manufactured by third parties. The goal is to complement the product portfolio for both the company sales force and the distributor network. The complement products may or may not show the AUSA brand. The products are being demanded by both the clients and the distributors. AUSA does not manufacture them because they are not addressed to a market niche, a condition imposed to all AUSA products. Sometimes this is also part of a protection strategy –a non-core product protects a core product to avoid market erosion to this core product. This increases the sales as well as the bargaining power in front of the distributor whose sales depend on AUSA to a larger extent.

AUSA Service provides maintenance services to renting companies, which are half of AUSA customers.

7.1.2. Selection criterion

AUSA was selected for several reasons: (i) despite their business model is not novel since it has been shaped during a history of fifty years, some of the choices make it to appear as unique; (ii) their sales have grown steadily in the recent years; (iii) they compete in a market with more players with different business models; (iv) they have conducted product and business model innovations; (v) they have formal procedures to promote innovation; (vi) they have set up a formal organization to promote innovation separated from the operating organization and reporting to the board of directors.

7.1.3. Research design

We prepared a questionnaire (see annex **7.1. Questionnaire prepared to interview AUSA managers**) based on the information gathered from the following sources:

- Corporate website (www.ausa.com)
- Case “AUSA. Innovant des dels orígens”, written by Joaquim Vilà and Tània Rubirola

- Case “Caso AUSA”, written by Pedro Nueno and Cristina Pallàs
- Book “AUSA. 1956-2006”, written by Lluís Virós.

We held semi-structured interviews with the following managers:

Name	Position	Date	Duration
Manel Perramon	Corporate Development Department manager Member of the board of directors Member of one of the founding families	01-18-2008	1,44'
Joan Andreu Aixendri	Managing Director	01-22-2008	1,48'
Antoni Tachó	Human Resources Director Member of the board of directors Member of one of the founding families	01-22-2008	1,36'
Anna Maria de Blas	Innovation Managing Department head	01-29-2008	2,13'
Maurici Perramon	Co-founder President of the board of directors	02-04-2008	1,14'

7.1.4. AUSA business model

Vehicles for niche markets

“Traditionally, AUSA has ensured the profitability by focusing their products on market niches of short runs in which the big competitors do not take part” is a description of AUSA business model by Virós, the author of the book “AUSA. 1956-2006.”

AUSA wants to be “a global leader in the market segments in which it has decided to compete. It has positioned in market niches to avoid competing with the big multinational companies of the industry,” as Vilà wrote in the case “AUSA. Innovant des dels orígens.”

Manuel Perramon defines AUSA business model as follows:

We develop industrial vehicles with special performances to run in extreme terrain conditions to load, transport, and unload charges. We manufacture them and market them using our own brand, worldwide, with the aim to be the leader in all the market niches in which we decide to compete.

All the interviewees remarked the focus on market niches to avoid fighting with big multinational companies, with which “we neither are interested nor can compete.”

For these big multinational companies dumpers are a marginal product, while “for us all our products are principal products, and we pay to them all our attention in order to be and remain leaders. Without attention and resources you will never achieve and keep a leadership position, even in a market niche. We have few market niches but we are leaders in all of them. In dumpers we are leaders in product range as well as in number

of units sold. In forklifts we share the leadership with a French company in the market niche of all-terrain vehicles.”

The choices that better characterize AUSA business model are the focus on niche markets while the aim to serve the global market. As Aixendri pointed out:

Our core business is our capacity to define machine concepts for the global world, by taking advantage of the “holes” that remain between the big companies. We call them market niches. Obviously, after de conceptual definition, a technical solution follows to materialize the concept and launch it to the marketplace. We place winning concepts in the market inside market niches.

The orientation towards market niches as a strategic choice shapes AUSA product innovation. *“When we launched the Task M50 we could have colluded with the big manufacturers that sell large volumes of such product, if we had configured the vehicle in a similar way. But we thought we could not compete against them in any manner. We had to do something different since the conceptual definition phase. It was a decision. And the concept was developed in order to transmit the desired product values and refusing to match the big competitors’ products. The USA market for this product is one of a hundred fifty thousand units per year. A ten percent would have meant fifteen thousand units per year. We did not want to compete with them. It does mean positioning. We did not want this positioning.”*

The Task M50 is a departure of the average multi-service vehicle one can find in the USA market. *“The Task M50 is a niche product within a non-niche product category, since it is stronger, more all-terrain oriented, with more loading capacity.”*

Niche product is synonymous of high margins but few units. The strategy of targeting niche markets allows AUSA to sustain higher prices. By contrast, although they try to serve the global market, the volumes are reduced. *“Although the multi-service vehicles product line shares some of the features of the automotive industry, short series and high prices will be the characteristics.”*

AUSA defines the niche strategy as one of avoiding the direct competition against large firms and focusing instead on the products that are a market niche of no interest for those large firms whose complex manufacturing organizations can not encompass small quantities. The multi-service vehicles product line covers a market niche not properly covered by large manufacturers, some of them in the automotive industry.

The niche market choice is complemented with a “what not to do”: AUSA *“does not enter unknown industries in which we do not have clients and where nobody knows us.”*

To reinforce the market niche choice, another choice has been to launch as many related products as possible to take advantage of the synergies in purchasing, logistics, manufacturing, and sales, *“but without departing from our positioning.”*

For one of the interviewees, AUSA key success factors are, among others, a clear focus on some niches which are in-deep studied, setting clear goals and being perseverant on them, and keeping in mind the company and product values in any decision to remain

strong. *“We also rely on the value of the main asset of the company which is the brand.”*

The origin

Between 1956 and 1961 the company manufactured small cars with the PTV brand (Perramon-Tachó-Vila, the names of the founder families). In 1961 the company suffered the competition by SEAT and the Spanish plants of other European brands and had to halt the assembly of these small cars. In a meeting of the board of directors, one of the members said: “here there is more wax to burn.” Several actions to keep the activity –such as assembling parts for other companies- followed that meeting until the launch of the first dumper. The sentence remained alive in the minds of the employees for several decades.

The first AUSA business model, the manufacture of small cars, was created thanks to the “enthusiasm and youth passion” of some friends that shared the mechanics and the motor sports as hobbies. Seeking for a substitute for the small car business, they *“looked at what it existed in the marketplace”* and they found a vehicle to load and transport materials inside the construction works in a German trade fair.

They bought the drawings of the vehicle they saw in the German trade fair, but when they examined them in Spain they discovered that they were wrong and that no vehicle could be assembled with such drawings. They decided to start a new vehicle from scratch, using the drawings just for the concept.

This was a “hole” in the marketplace, with the construction industry living a high growth and requiring automation. They thought they had the know-how in vehicle mechanics and could use the parts in inventory from the discontinued small cars.

The success of these slow but powerful (4x4 motion) vehicles designed for extreme all-terrain places and the accumulated market knowledge drove them to launch a forklift based on the same principles, large wheels as opposed to the usual small wheels to run outdoor rough as opposed to indoor smooth terrains.

AUSA (“Automóviles Utilitarios, Sociedad Anónima”) is the only survivor of more than a hundred companies manufacturing small cars before SEAT.

“Look at what it exists in the marketplace” has been a constant source of innovation throughout AUSA history. Ecosite, a business idea later explained consisting of a set of procedures to manage the works waste at source to dispose it in the rubbish tip dully classified, arose as an opportunity thanks to visiting works and observing how the waste is managed, mixed and unclassified (*“classification is considered there a lost of time”*), despite the increasing legal restrictions and the existence of a cost differential between classified and unclassified disposal.

Choices and “what not to do”

Since the very beginning AUSA has been a design and assembly business. AUSA has never manufactured components. Components are either commercial or manufactured by external suppliers.

One of the choices that has shaped AUSA business model is technological independence. All products have been designed internally. The R&D department has had a powerful role in the success of AUSA throughout its history. Thanks to relying on its own designs AUSA do not pay royalties. Sometimes the internal design ends up with a patent. The Compen 4 x 4 motion transmission has been a differentiator and a competitive advantage for AUSA during several decades. It allows the four wheels to always turn and have the maximum traction.

On the other hand, AUSA relies whenever possible in market components. They had to design the Compen 4 x 4 motion transmission because it did not exist in the market.

Focus just on assembly and reliance on commercial components provides the model with flexibility, and reliance on technology on their own allows fit with market requirements and savings of royalty payments.

AUSA counts on the best specialist for each component, and a part of the suppliers is integrated in the development of the product as a way to meet both the requested specifications and the targeted costs in order to remain competitive which is, according to one of the interviewees, the key to: (i) properly compensate the employees to recruit and keep the best team of the market; (ii) reward the shareholders and keep them *“patient with their investment”*; and (iii) fund the development of products and services.

The products are granted the most demanding international official approvals.

The early adoption of just in time and lean production manufacturing philosophies has also been a differentiator. Lean production allowed AUSA to profitably manufacture short runs of vehicles and accommodate the varied customer requirements, a key factor for a company focused on selling few units of specific products for small market niches. Before starting with lean production AUSA reduced the number of product types and standardized the parts as much as possible and made them to be interchangeable for different product types. Although AUSA is not part of the automotive industry, they adopted the assembly line as plant layout, with the consequent benefits in terms of deadline reduction, cost reduction, inventory reduction, turnover increase, productivity increase, flexibility increase, and space utilization. This required the workers to be polyvalent and the suppliers to be integrated in the chain.

AUSA has been a company oriented to innovation since the very beginning, and their notion of innovation has to do with the notion of market creation. Innovation was defined by Aixendri as *“the capacity of influencing the future demand of the market. We can define nice concepts and produce nice designs, but if they finally can not influence the future market, there is no innovation.”*

They distinguish this approach to innovation, aimed at influencing the future market through the creation of an innovative concept, from the technological solutions embedded in the innovative concepts. This distinction is similar to the difference between radical and incremental innovation. Radical innovation would result in market creation while incremental innovation would mean the application of technological solutions. They believe that *“if the concept is not innovative, there is no value contribution no matter the amount of technological innovation.”* On the other hand,

they also believe that AUSA differentiates from its competitors in these technological solutions.

Another choice has been keeping the founders' personality alive throughout the fifty-year history. The founders' personality has spread enthusiasm and entrepreneurship inside the organization and it has created a corporate personality "embedded" in the company products. It has also made the customer relationship "warmer," mainly with customers loyal to the company since its foundation. Some customers use to remember that "AUSA helped me to grow my business."

AUSA has defined a set of corporate values to be transmitted to the market via the company products. The result is market differentiation from its competitors. *"We are a water drop in an immense sea... but an orange water drop."* Orange is the colour of AUSA products and appeared several times in the interviews as a source of differentiation: *"although we are a small, medium company immerse in an industry of big multinationals, we are an orange dot, a grain of orange sand in the desert. Everybody in the industry recognizes an AUSA machine from far away for the orange colour. Sometimes, one may be wrong as some competitors also have copied the colour from us."*

According to one of the interviewees there is a link between corporate values and the way AUSA competes: *"we try to go one step ahead of them [the competitors], be everywhere, be the first mover, and giving [to the customers] the added value of the interaction of AUSA employees, since we believe that there is an emotional component in the sale. We try to wrap the product with something from ourselves."*

Corporate values also shape AUSA relationship with the different stakeholders. As an example, corporate values have always driven the way the company faces the cyclical crisis *"which usually 'clean' the market of companies such as us"* caused by cyclical crisis in the construction industry. In order to survive, in addition to actions to reduce the expenditure, programs to share the impact and consequences with the stakeholders, et cetera, they try to transmit confidence to the employees, to the banks, and to the suppliers, *"because we will need all of them after the recession."*

They explained the way corporate values run inside AUSA. To them, corporate values must be first understood, then felt, and finally transmitted to the product thanks to the designs. AUSA tries to make sure that the designers are "pervaded" with corporate values. Finally, the corporate values "embedded" in the product have created the brand image.

As said before, they *"rely on the value of the main asset of the company which is the brand."*

According to the interviewees, AUSA brand evokes in the Spanish market: (i) a sound company with a fifty-year history and a promising future based upon this history; (ii) a robust, strong, durable, and reliable product, leader in technology, design, and performance; and (iii) a human team that behaves and do business in a simple and direct way. The third evocation relates with corporate values as *"we are not complicated. We seek proximity, a fit, a positive chemical reaction. When people deal with us, they feel as in home."*

AUSA is perceived as a company with a promising future, as an integrating company that takes care of the environment, as a leading and competitive company, as a family but not old or ancient company, and as an innovative company that constantly launches products to the market. And the product is perceived as having economic worth. *“The owner of an AUSA machine does not have a piece of junk.”*

The brand is a differentiator that allows the company to sell at higher prices compared to the competition. *“The client is aware that he is buying a durable, reliable, and financially profitable machine, able to satisfy his needs, and with the service full guaranteed. The brand AUSA is a promise of both the company and the product values.”*

Brand image also comes from *“not having disappointed customers’ expectations in regards to the uses of the products and also from a good service.”*

Until the nineties the most valued product attributes were robustness and reliability. Since then, design and ergonomics are also requested.

Another choice is the kind of people AUSA wants to recruit: *“we want to be extremely selective. We must make sure we hire persons that meet several conditions we appreciate: education, experience, and ability to deliver the expected outcomes timely... and not to be ‘strange.’ We seek to hire the best candidates, bearing in mind that most of the competitors can not do the same and sustain such an overhead.”* Naturalness and humbleness are two appreciated qualities of employees, and neck and neck fighting is not allowed. *“Change of behavior, dismissal, or resignation follows a lack of integration.”*

As part of the human resources policies, the company established a social fund, career plans, and a compensation system for indirect employees (*“from the receptionist to the managing director”*) based on a fix amount and a variable portion that may range up to a fifteen percent of the salary, depending on individual goals and the performance of the company. The given weight to individual and corporate goals is adjusted in regards to responsibilities. There are no individual goals related to innovation, except for those explicitly involved in innovation (i.e. one of the individual goals of the innovation manager is the number of new ideas launched).

The direct employees are rewarded at the end of the year, depending on the company’s performance, with a fixed percentage on their salary, usually a 2%. But the system is applied linearly to all the employees. *“Although we have indicators for everything, the company does not like to implant a really variable system for plant workers for fear of unionization. We do not want the unions to come to discuss why the company has not delivered a higher net profit that would have resulted in a higher percentage to the workers.”*

The company launched a programme called “Pla Xispa” aimed at making the employees behave as managing directors. *“We wanted people to be innovative, creative, responsible, able to contribute to the company’s continuous improvement, and always being one step ahead.”* The programme is composed by several initiatives designed to create an environment favourable to creativity, contribute to the professional growth of the employees, and increase their company’s belonging feeling. They are

communicating, offering training programs, making the employees to take part in brainstorming sessions, focused meetings, et cetera. *“We even give information about the company’s financial performance to all employees. Maximum transparency, opened books, there is nothing to hide.”*

AUSA has been recognized as being one of the twenty-five Spanish best places to work in.

In regards to “what not to do”, two of the interviewees coincided separately to point out as the most recent “what not to do” an agreement to import and distribute in Europe heavy construction machinery for public works manufactured by a large Chinese company. Aixendri said:

If we had said yes, this would have changed the company’s configuration dramatically. This would have meant a diversification from the vertical building industry. After more than one year of negotiations and discussions in every meeting of the board of directors, we decided to halt the dealings. Reasons: it did not fit our strategy, not only in regards to the volumes involved but also to the type of machinery. Although we know and control the “environment”, the submarket –public works- is not the same, and although it would share some customers the commercial dealings are different, and it required a great effort in terms of working capital and management energy, and a great commercial risk. In addition, we are entering an economic crisis and we need to be strong in our core. We need to continue developing new products and businesses in order to remain sustainable, and this could not be done entering something new –in which we are not focused now- that can absorb a sixty percent of our time. Our core business could not be overwhelmed by a business out of our control from the technological and industrial points of view. In four or five years it could have become larger than our own business.

The other interviewee remarked as a main cause of the refusal that *“it was not a niche product.”*

Another example of “what not to do” is the refusal of businesses beyond AUSA capabilities. When they showed the first Task M50 in the USA in 2004, a potential distributor proposed them to place an order for twelve thousand units. AUSA refused because they lacked the resources to supply such order and the business involved several major risks. On one hand, there was a lack of confidence in the firmness of the order. They wonder to what extent the distributor was enforced to keep the numbers of the order. On the other, the machine was a new one, only some prototypes had been built, and it was not tested in large scale and in different working conditions. *“Just when you have a hundred machines in the market you have access to statistical data. The process of analysis and changes in a new model is common in the automotive industry, but we are not part of it; we are machine-builders.”*

Usually, “what not to do” relate with the launch of products that are not niche. *“We have halted some projects with a prototype already built once we have found out that they were not addressed to a market niche and that we would have faced competition by a big manufacturer.”*

Market and competition

AUSA sells to two types of customer, the construction companies and the renting companies than rent equipment to small construction companies. They use two channels to supply the market, directly through sales and service affiliates and through concessionaires owned by third parties.

AUSA Service provides maintenance services to the renting companies that are AUSA clients, which account for more than half of the sales amount. They buy vehicles from AUSA and rent them to small and medium building companies. AUSA ensures the availability of the customer's fleet of vehicles every day. They have a lemma to attack this market: *"we take care of your machine to allow you to focus on your business,"* which is to find customers. Since AUSA knows the mechanics of the vehicles, they can provide the best maintenance service, better than the one provided by the client itself.

AUSA has doubled in size in four years without any M&A transaction, relaying solely on organic growth. *"We are an industrial company"* is continuously remarked as a differentiation factor from other non-pure industrial strategies.

AUSA faces different competitors depending on the market niche and the geographical market. AUSA is the world leader in both dumpers and forklifts in number of units sold. Their global market share in dumpers is 23%.

In dumpers AUSA Spanish market share is 52%, with nine competitors sharing the other half of the market, four of which Spanish. They are *"literally copiers. In a recent trade fair, one of them showed a copied machine built on an AUSA frame. They bought an AUSA machine, disassembled it, and built their components on our frame!"*

Some competitors are owned by financial funds and they are more focused on the short-term goals. They rely on copy and imitation rather than on own R&D, and their post-sale service is poor. *"AUSA does not suffer such a pressure for the short-term result since there is no investor looking at the share price. We are able to accept a lower return on equity if this allows us a higher one in the coming years."*

AUSA attacks other national markets with products conceived and designed for these particular markets. To enter the British market, AUSA extended the product range towards larger vehicles with higher loading capacity. To enter the American market, they launched the Task M50, a vehicle based on a concept which is well-known there, but designed taking into consideration AUSA product attributes, particularly robustness, strength, durability, reliability, and leadership in terms of technology, design, and performance.

The dumpers British market illustrates a strategic move by AUSA. The load capacities in this market are higher, up to 10 tons. AUSA had just a 1% of market share since their load capacities were lower. On the other hand, the British competitors targeted the promising Spanish market trying to implement the culture of larger dumpers (*"do not use four dumpers of one ton; use one dumper of four tons"*). Aixendri explained the strategic move:

Facing this frontal attack by the British competitors, we decided to redesign the strategy. They attack us and we have to defend ourselves... and the best defence is a defence on our territory and a parallel attack to theirs. We developed an entire range of high load capacity vehicles, doing a benchmark and including some novel features in design and performance seeking “chemical tuning” between the product and the market. In three years we have increased our market share [in the British market] from 1% to 25%, beating them and deterring their entry in the Spanish market.

In forklifts AUSA Spanish market share is 58%. The main competitor is a French firm that has been the world leader in units sold throughout the history until recently AUSA surpassed it. There are also a few marginal competitors. Within this market niche AUSA strategy has been one of positioning its products in an edge. AUSA forklifts are the more “all-terrain” vehicles of the market, designed to deal with the more extreme conditions, in which its performance is optimal, while the French competitor is better positioned in the non-extreme conditions, where AUSA forklifts performance is not so optimal.

Most of the Spanish competitors are smaller in size than AUSA, and are diversified; they produce other machinery for the construction industry and even machinery for other industries such as agriculture. *“We compete being more innovative than them.”* AUSA competes with them by launching new and differentiated products before they do it. They respond by copying. The products are becoming less differentiated, so that prices tend to converge. Finally the only source of differentiation is the provision of services such as financial services. *“We are a better organized company and that allows us to provide services that the smaller companies can not provide.”*

On the other hand, for the big multinational companies these products are marginal – they are not “star products” as they are for AUSA-, and consequently they pay less attention to them and assign less resources to them.

Sometimes AUSA is forced to offer products which are not an AUSA innovation or which are not manufactured by the company just to protect the domestic market from these big companies. The only purpose is protection. If the protection product is manufactured by AUSA, the company tries to improve it in terms of advantages for the customer in order to differentiate it from the competitors’. Sometimes they attack the market of origin of the competitor with this same product, although the brand is not so well-known.

The great advantage of the big multinational companies is scale economies in purchasing.

Ownership and governance structure

AUSA wants to remain independent. *“We are a family company with a desire of continuity. We are neither in the stock exchange nor in ‘battles’ out of our reach.”*

They prioritize profitability to growth. Instead of having a growth strategy, they have a ROE (Return on Equity) strategy.

They must diversify to guarantee the profitability and have a sustainable and sound company. 95% of AUSA sales are machinery for the world construction industry. 42% of AUSA sales are machinery for the Spanish construction industry. Therefore, concentration means the construction industry in Spain, with prospects of being quite instable in the coming two to three years. They have a sustainability plan to diversify in two main lines: (i) increase the sales outside Spain, and (ii) increase the sales outside the building industry. They are trying to attack as many geographical markets as possible. They are designing vehicles for works other than the ones of the construction industry. They are also seeking to create new businesses having nothing to do with the construction industry.

During a period of ten years (from 1993 to 2003) 3i, a British venture capital firm, took over up to a 24% of the AUSA equity. All the interviewees coincided to point out that their main contribution was to professionalize the board of directors.

Maurici Perramon, founder and president of the board of directors, said:

3i contributed with a vision wider of that of AUSA and its immediate environment. And they helped all of us to make compromising decisions – such as firing long-time employees- for which we had not courage enough. During this period a recession occurred, we had losses in two fiscal years after a long period of years without any loss, and we were worried, until they said, giving no importance to the losses: “do not worry. We have never invested in a company without any episode of losses. When actions are taken profits follow, and the situation is overcome.” In agreement with them the board of directors appointed as CEO an external professional. This allowed us to replace some “sacred” but not so professional people. These decisions would never have been made by us.

Manel Perramon, corporate development director, member of the board, and also member of one of the founding families, said:

3i is a company specialized in investing in family companies. They know the “internalities” of family companies, as well as their strengths and weaknesses. They try to overcome their weaknesses, one of which is the lack of an effective board of directors. They “teach” you to behave as manager, shareholder, and board member, depending on the type of meeting. On the other hand they did not interfere with the day-to-day management. The only requirement was to recruit the best management team. Sometimes in family companies there is also a lack of rigor even with the market launches. We had designed and built new vehicles, we showed them in trade fairs, without any prior market research, and nobody bought them. The reaction used to be: “are they fool? Why don’t they understand us? Why don’t they see the benefits of them?” The reason was simple; we were not oriented to the market needs. They helped us to change the focus of the company towards the market.

Tachó, human resources director, member of the board, and also member of one of the founding families, said:

We were working “at home” and since the entry of 3i we start working for a company with several shareholders. My card told what I was and since then it started telling my position and responsibilities (“I act as...”). Thanks to 3i the company became professionalized, and everything was public, transparent, rigorous... The family members were valued not for our family links but for our capabilities. They also helped as to face the succession and continuity of the company.

AUSA always has paid special attention to processes of ownership transmission and management succession. A family protocol was signed in 1998.

Today the board of directors is composed by members of two of the founding families, the managing director and one independent member with a long trajectory in the automotive industry *“to contribute with policy vision and future perspective.”* Part of these family members also holds management positions, part of them even reporting to the managing director, who is not member of any of the founding families. The relationship between the managing director and the family members is defined by Aixendri as one of equilibrium:

I am an innate catalyser. This capacity is in my DNA. Strange things, failures to meet up, negativity, fear of failures, status... are not in our dictionary. Once the owners are aware than the company may go up or may go bankrupt, fears disappear. My goal is make the owners to feel comfortable with me and deliver the expected outcomes. Without the expected outcomes it will be difficult that the owners feel comfortable. The worst situation is one in which the owners manifest every day that they are the owners and the managing director manifests every day that he has the control of the company. This company is an “island” since both the owners and the managing director have the proper behaviour. And this will continue until both the owners and the managing director decide otherwise... or we do not meet the expected outcomes. The most important role in this fit is the managing director’s one. He has to transmit confidence, safety. And everyone must be humble and not “strange”. And this sometimes takes long time. When I created a matrix organization to replace the existing one, the owners thought I was going to destroy the company...

Tachó remarked the “confidence and mutual respect relationship” that exists between Aixendri and himself. *“I negotiate with him his salary on behalf of the board of directors and he communicates my salary to me.”*

Tachó believes that, in addition to the growth of the construction market and the success of several product lines, part of the success of the company in the recent four years is due to Aixendri, who is a *“drive within AUSA.”* About the managing director’s profile, Tachó remarked that *“he is not a strategist, a thinker; he is more a day-to-day worker.”*

At AUSA there is no separation between ownership and management. In regards to the appointment of an external professional as CEO or managing director, Maurici Perramon said:

This role should not be assumed by a family member. It is convenient for the family not to assume this role. A family member can be either good or no so good. But it is possible to find better professionals out of the family. The problem arises when it has to be replaced. Replacing a family member usually ends up traumatically. On the other hand, the fact that some of the family members work in the company is an advantage since they “live” the problems and can contribute with critical points of view. In any case, they have to establish the guidelines and make decisions.

Manuel Perramon gave further reasons for keeping the CEO or managing director position in external hands: *“in each development phase of the company a different profile is needed and filling the position with an external manager allows you to replace it.”*

They recognize that this particular government structure does not have any particular influence to innovation. Innovation can flourish in any company, but certain equilibrium conditions must concur. *“If there is equilibrium in the company innovation can flourish. If not, innovation will never flourish for sure, since there will be a permanent failure to meet up.”*

The future

In regards to whether they sell machines or provide services through the machines they sell, they are not considered themselves a service company. They rather provide services through their machines. *“Out of the machinery business we do not have know-how. We are not agile designing and implementing services. Think of our sales force, whose skills are in selling machines and providing related services.”*

Despite the fact that they are not considered a service company, they launched Ecosite, a new business within AUSA described later in detail which is part of their diversifying strategy.

They have changed the organization chart from departments to business lines, as a result of the sustainability plan and to facilitate the diversifying strategy. According to the new chart, the entire organization must serve those business lines.

They plan to create a separate business line for each new business born inside the company. They are currently working on the job description and responsibilities of the business unit directors who will be managing directors with full responsibility within their units (strategies, business plans, income statement, balance sheet, et cetera). *“Otherwise we could fall in the trap of managing a service business as one of power transmissions..., while it requires different market and commercial focuses and have other clients and another history.”*

In this regard, the head of EcoSite has been recruited from outside the company in order to avoid thinking in terms of the traditional business and also because the new business requires another profile, civil works engineers and people with experience inside works and in environment protection.

They have doubled the company in four years, although *“the priority is profitability, not growth.”* They recognize that it will be difficult to continue with this growth path, as *“a 20% increase over 100 is not the same as over 200.”* They believe that there will be a change in the portfolio product. Some products will fall from the portfolio while new ones will be introduced, following changes in market needs.

They believe that AUSA will continue being the market leader but it will be difficult to keep the current market share as new players can enter, existing small companies can be acquired by large ones, and the large manufacturers may launch competing products. New distribution networks will be created to accommodate new businesses and AUSA Trading product range will be extended in support of both AUSA sales force and the distributor network. Public works will have its role as market segment for AUSA, as well as municipalities as customer segment. Multi-service vehicles will become the third column of the company and dumpers and forklifts will reduce their share.

However, they share the common notion that *“the market is not waiting for the innovations or value creations of companies such us.”*

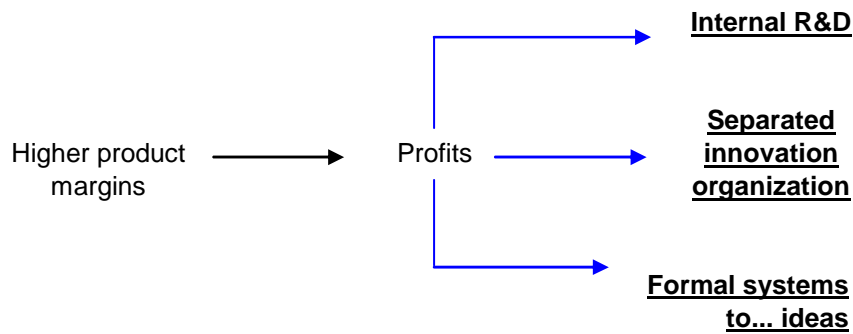
To the question: “in order to start supplying high-growth developing economies, would AUSA be able to launch a dumper for a tenth of the current cost?” several interviewees answered affirmatively but using a second brand.

Internationalization is in AUSA agenda to increase their sustainability. *“You can not think in internationalization without being leader in the Spanish market, but that is not our case.”* In addition to be the leader in the domestic market, internationalization also requires a complete product range. *“Once we have the product range completed in dumpers and forklifts, it is time to sell them worldwide through an extended sales network. Internationalization is needed to reduce the reliance on the Spanish construction market and the associated risk. Few dumpers are now sold in Asia but we must be there and ready when the market emerges.”*

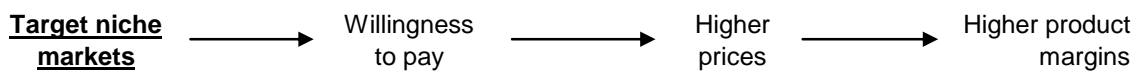
According to Manuel Perramon, corporate development director, AUSA future will specifically rely on both internationalization and the launch of new products such the ones dedicated to street cleaning, another niche market with small competitors manufacturing few units. AUSA can compete with them on costs because the company produces more product lines while these small competitors are focused on this particular market segment. *“We still need to learn about this particular functionality. As usual, if we can not become the leader in a market niche we are not interested on entering it. In this case, we have studied the industry and we believe that we can become the first European player.”*

7.1.5. AUSA business model representation

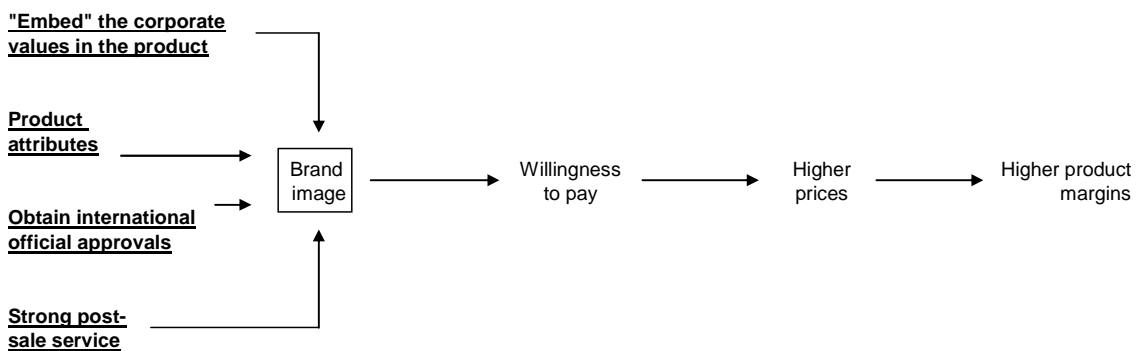
The first figure shows the basis of AUSA business model: achieve profits by achieving higher product margins than the competitors, and use those profits to hold an internal R&D, a separated innovation organization, and formal systems to generate, evaluate, and submit ideas. Without profits it is difficult to sustain costly departments, organizational designs, and management systems, and without high product margins it is difficult to be profitable.



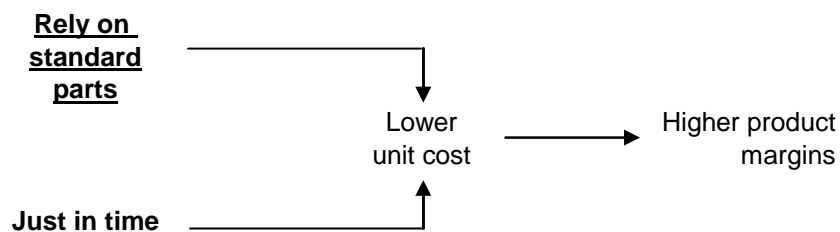
AUSA achieves higher product margins by targeting niche markets. They launch products for which there is a willingness to pay because those products try to satisfy specific unmet market needs:



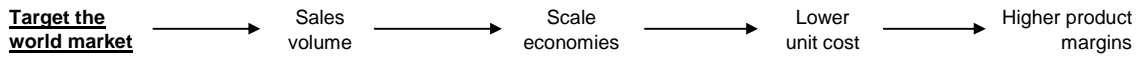
The willingness to pay is reinforced by some choices that have created a brand image, particularly embedding the corporate values in the product, the product attributes themselves, the granted international official approvals, and a continuous reputation of good post-sale service:



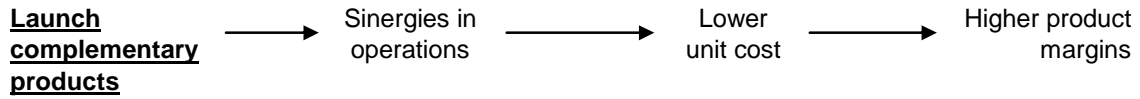
Higher product margins than the competitors are not only achieved by setting higher prices. Lower unit costs also result in higher product margins. Two choices contribute to reduce the product unit cost: the use of standard rather than special parts and the implementation of the just in time sourcing philosophy, which reduces the inventory of parts and, hence, the cost of keeping them in inventory:



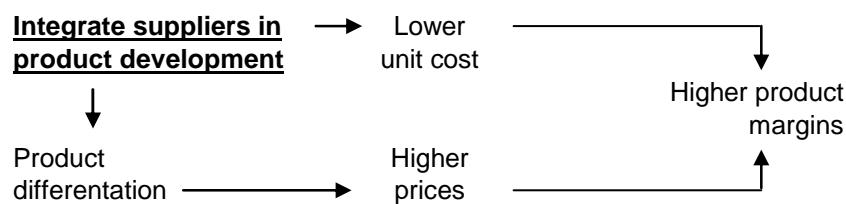
Despite targeting niche markets means a low sales volume and, therefore, short runs compared to targeting mass markets, AUSA tries to counteract this weakness by targeting the world market in an attempt to achieve scale economies for the niche products:



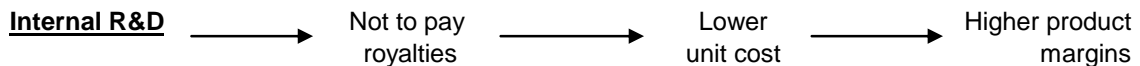
They also launch complementary products to achieve synergies in purchasing, manufacturing, and logistics, and lower the unit costs:



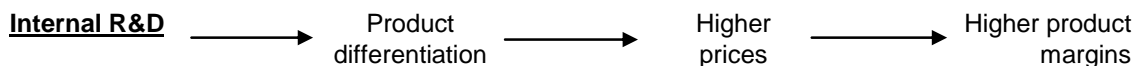
Integrating the suppliers in product development also results in higher product margins in two ways: by lowering the unit cost of the product and by differentiating the products from those of the competitors that do not integrate their suppliers in product development; and product differentiation allows AUSA to set higher prices:



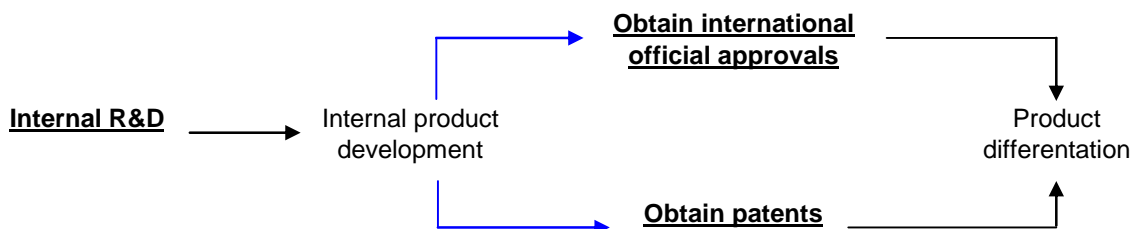
Finally, thanks to relying on internal R&D, AUSA do not pay royalties for the use of others' technology, which results in lower unit costs:



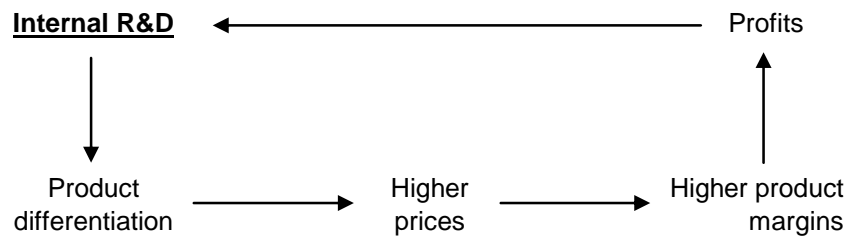
A powerful R&D department is a source of differentiation in regards to the competitors that rely on copying. Better and different products are the outcome of the R&D efforts, in AUSA managers' words; better and different products for which AUSA may set higher prices:



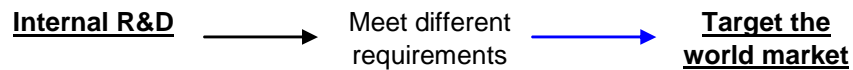
Internal R&D also allows AUSA to be granted international official approvals and patents which increase the differentiation in regards to the competitors that rely on copying or use others' patents:



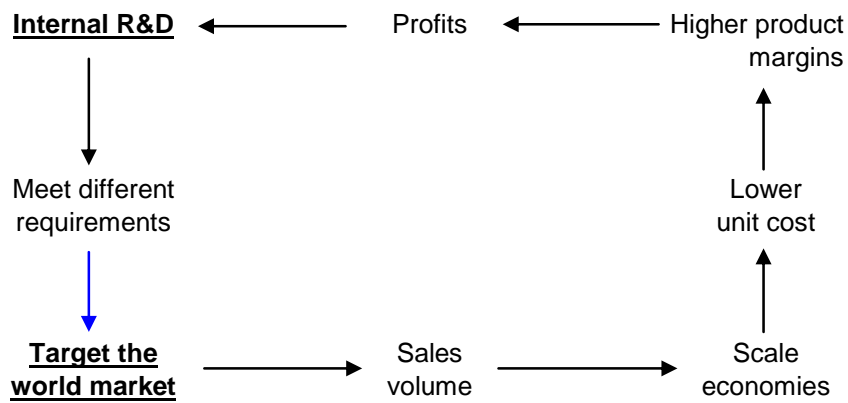
If internal R&D ends up in higher product margins via product differentiation and higher prices, and profits fuel the internal R&D efforts, we can identify a first virtuous cycle:



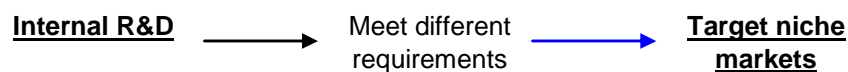
Internal R&D allows AUSA to meet the different requirements of different geographical markets:



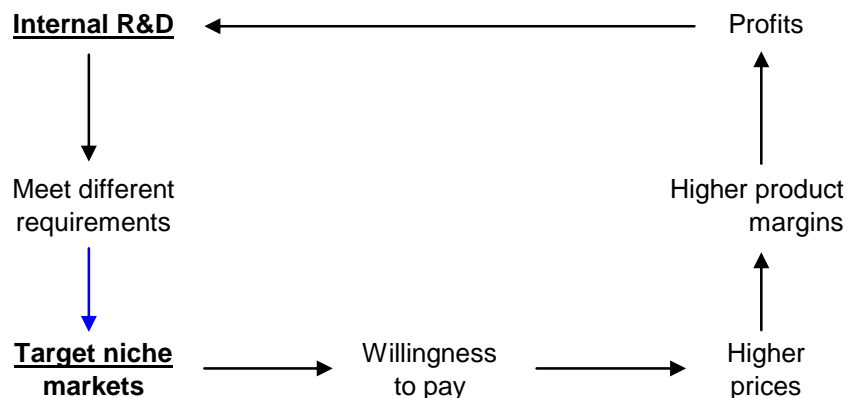
If internal R&D allows AUSA to target the world market and, therefore, achieve higher product margins via lowering the unit cost due to scale economies, and profits fuel the internal R&D efforts, we can identify a second virtuous cycle:



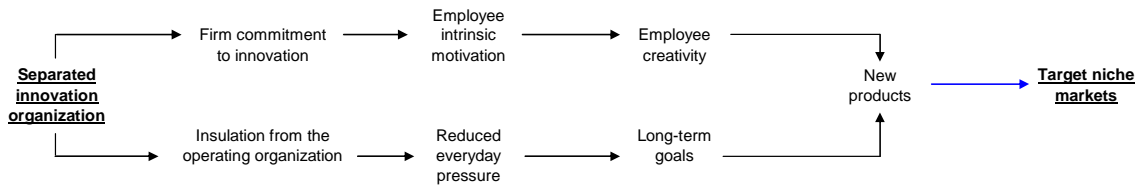
Finally, internal R&D also allows AUSA to meet the different requirements of products conceived to satisfy specific unmet market needs:



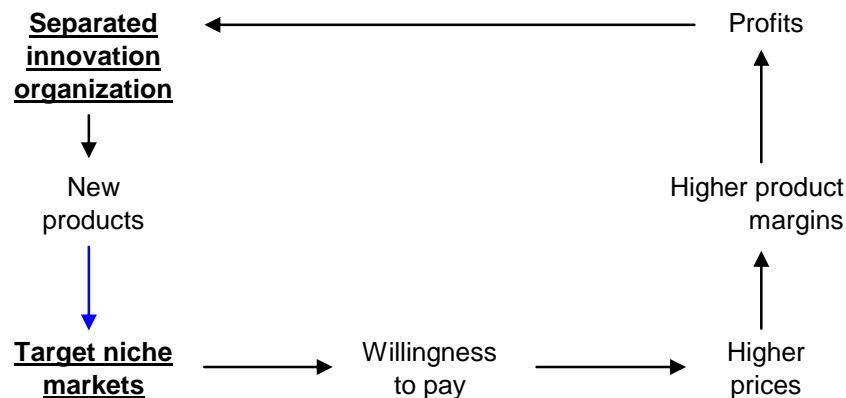
If internal R&D allows AUSA to target niche markets and, therefore, achieve higher product margins via higher prices supported by a willingness to pay, and profits fuel the internal R&D efforts, we can identify a third virtuous cycle:



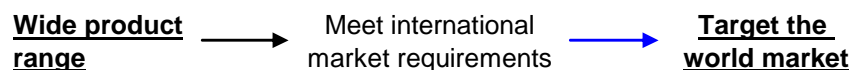
The setup of a separated innovation organization is a demonstration that AUSA commitment to innovation is firm and credible. An effect of such commitment is employees' motivation, which seems to be a requisite for creativity; and creativity may result in new products. On the other hand, a reason to establish an innovation organization different from the operating organization is avoid the everyday pressure and focus on long term goals, which seems to be a requisite for conceiving new products. Finally, new products allow AUSA to target niche markets.



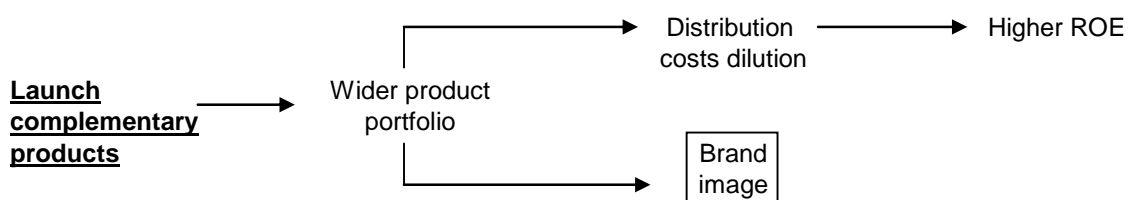
If a separated innovation organization allows AUSA to target niche markets and, therefore, achieve higher product margins via higher prices supported by a willingness to pay, and profits make possible to setup and hold a separated innovation organization, we can identify a forth virtuous cycle:



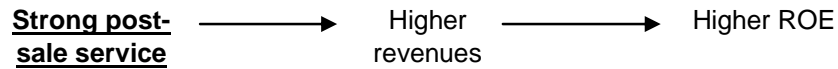
Recently AUSA has widened its product range in order to meet the requirements of the international markets and, therefore, make possible to target the world market, a requisite for a large sales volume, scale economies, lower unit costs, higher product margins, and profits:



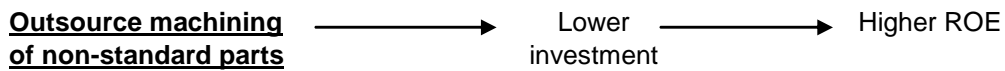
They have also launched complementary products to take advantage of synergies and lower unit costs, but also to spread the distribution costs among more units and reinforce the brand image:



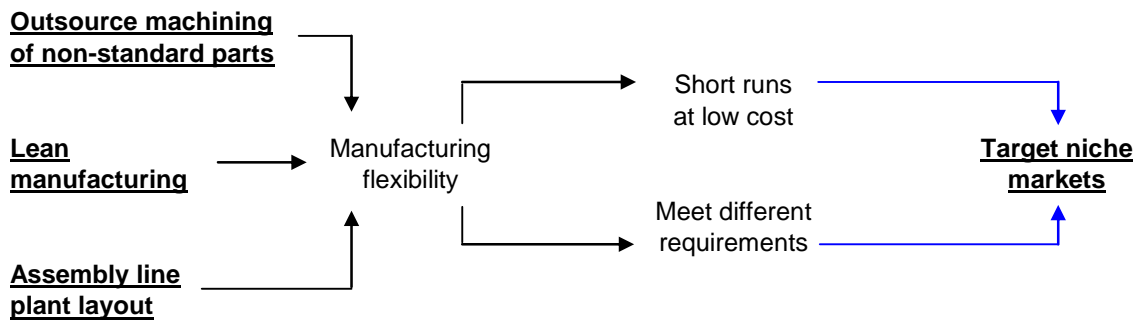
A strong post-sale service, in addition to reinforce the brand image, generates revenues and profitability:



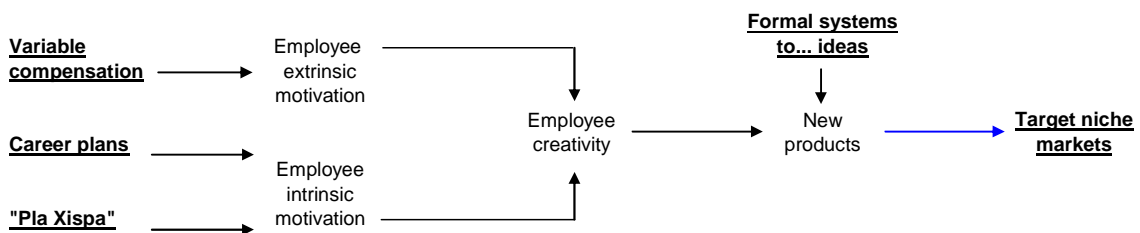
Outsourcing the machining of non-standard parts increases the profitability since it reduces the investment in fixed assets:



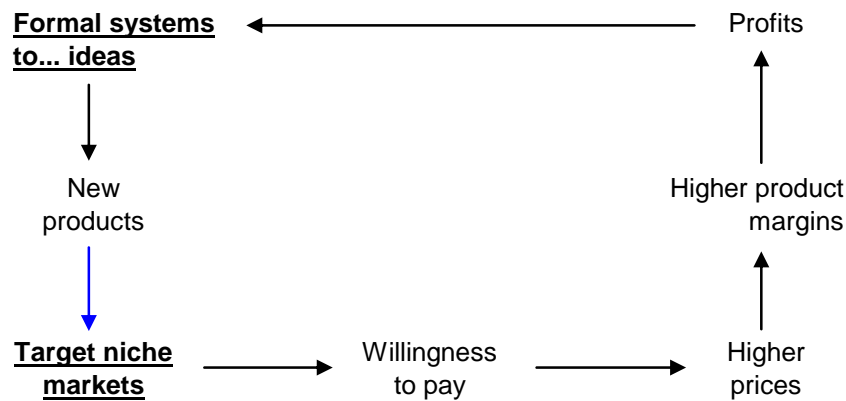
Thanks to the implementation of several manufacturing philosophies from the automotive industry, the AUSA assembly process is flexible enough to make short runs viable from the cost point of view and to meet the different requirements of products conceived to satisfy specific unmet market needs. Without such manufacturing flexibility, the choice of targeting niche markets would have not been possible:



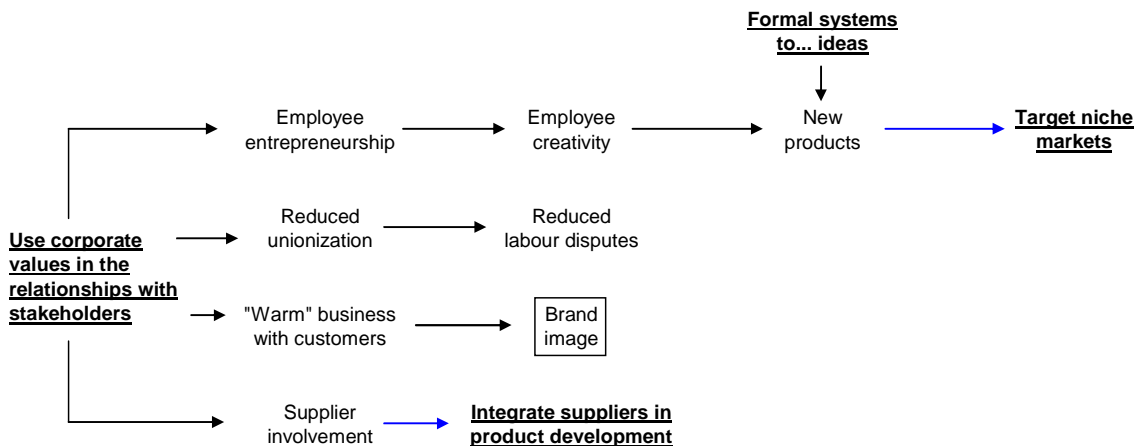
As we have seen before, targeting niche markets requires a stream of new products, which also depends on the creativity deployed by the employees. Employee creativity at AUSA is promoted making some choices that increase both the extrinsic and the intrinsic employee motivation. In addition, AUSA has formal systems to generate, evaluate, and submit ideas; to convert employee creativity into new products:



If formal systems to generate, evaluate, and submit ideas convert employee creativity in new ideas which are requested to target niche markets and, therefore, achieve higher product margins via higher prices supported by a willingness to pay, and profits make possible to implement such formal systems, we can identify a fifth virtuous cycle:



Employee creativity is also promoted by an entrepreneurship spirit diffused among the employees by using the corporate values in the relationships between AUSA and their stakeholders. Such use of the corporate values also reduces the labour disputes by reducing the unionization, reinforces the brand image by having friendly relationships with the customers, and facilitates the integration of the suppliers in the development of new products and in the assembly process:



7.1.6. AUSA approach to innovation

The basics of innovation

“Innovation is part of our DNA.” This statement makes sense considering that AUSA devotes an average of 5% of sales to R&D. The percentage of sales from products launched in the last five years is an indicator that is regularly monitored. One of the interviewees remarked that *“if we had not innovated in the last seven years we would be today in bankruptcy. And we should continue, otherwise the company could disappear in three years.”*

They believe that innovation is not a random process. *“We must innovate with criteria and with a clear definition of the goals to be met.”* In addition to clear goals, innovation is driven by a purpose. *“We are focused on innovation, because without innovation it is impossible to find market niches.”* Visit industry trade fairs, visit fairs devoted to other industries they want to enter, visit with clients to acknowledge their problems, *“seek solutions leading to products that do not exist in the market”*... Innovation is a

“selective and organized search leading to products that may exist but can be improved or products that do not exist, all looking at four or five years ahead.”

They also believe in formal processes to make innovation to flourish. *“Ideas do not come unless you have a formal process to seek them. If you seek them, they will come. If you do not seek them, they may come, but with less probability. If you want a success in the lotto, you need to buy plenty of tickets. With innovation we do the same, we buy as many tickets as possible.”*

De Blas, head of the Innovation Management Department, said:

Ideas do not come out of the blue. They have to be first generated and then developed. They have to be converted in something tangible, marketable, and profitable. This means time and resources and managerial effort. And if the company is not organized with this purpose... it does not run.

Innovation Management Department is trying to capture as many ideas as possible from inside the company, both free and focused ideas, from the employees as well as from suppliers and distributors. Before the creation of the department, *“ideas were considered to come only from the management and the employees close to product development.”* A systematized procedure was established to capture ideas from everywhere, to *“make the arrival of ideas sustainable,”* to analyse them properly, to increase their likelihood to pass selection and filtering, and the approval by the committees, and to increase their probability to become successful market launches.

For them innovation is almost like an attitude. *“Innovation takes place every day thanks to our behaviour. We are five hundred managing directors. Innovation is an attitude in regards to the company, the business, and the own responsibility. If the management is proper, innovation flourishes.”*

Maurici Perramon remarked to what extent innovation is important for AUSA:

Innovation is not only launching a new machine but also changing the selling systems, the manufacturing systems. Innovation is not only innovation department's responsibility. Everybody has to be involved, everybody has the obligation to contribute with ideas, and everybody who visits clients or attends fairs has to travel with the eyes opened. For innovation to flourish the employees should feel strongly as part of the company. If they are serving in a company they are also responsible for the outcomes. The roles are different but all are important. And what is at stake is the future of all of us. The innovation department is only responsible for implementing the ideas.

Despite AUSA orientation towards innovation, they recognize that there is certain “risk culture” in regards to new business innovation, and a bias towards non-radical innovations. *“It is easier to innovate within the confines of your traditional industry, because you know the clients, they know you, and there is brand recognition. There is fear to attack the unknown, to enter industries where AUSA is nobody and has to begin from scratch.”*

AUSA Innovation Plan

A structured process of innovation was put in place in 2001 under the title of AUSA Innovation Plan. The goal was to get a new product idea and a new viable business idea every year, bearing in mind two premises: (i) innovation can not rely solely on one person; (ii) innovation and daily operations can not interfere. This was an advance in terms of process systematization. Three types of innovation were defined: (i) incremental innovations (product or process); (ii) product radical innovations (product concepts new to the company and to the market); and (iii) business innovations, known or unknown in the marketplace. The plan also created the Corporate Development Department with its three initial departments: (i) Product Strategy (gather information and define future needs of existing and potential customers); (ii) Business Strategy (seek new viable businesses through identification and definition of customer needs, do pilot tests, and prepare and submit business plans to the Strategic Planning Committee); and (iii) New Concepts (develop product conceptual ideas quoted as radical innovations and submit them to the Product Strategy Committee).

The Innovation Plan, which main goal was the issue of a product idea and a business idea every year, requested the generation of ideas in quantity and quality. Initially the purpose was to generate as many ideas as possible as a means to get some ideas of quality. Later, due to the efforts demanded by the selection process, the objective was to generate less ideas in quantity but better ideas in quality. And better meant linked to the company's strategy. A list of criteria to label an idea as a good one was defined, classified in four categories: (i) strategic (fit with AUSA strategy, newness in the market, potential leadership for AUSA); (ii) operational (available technology, time-to-market, synergies with current products); (iii) financial (payback, product gross margin, investment in R&D); and (iv) commercial (volume, existing competitors, fit with the sales network, increase in internationalization, increase in customer value, extension of current product range).

The ideas were expected to come from fairs, customer satisfaction surveys, benchmark with competing products, "field" visits, collaborations with technological centres and universities, collaboration in European innovation projects, et cetera.

For each promising idea, several steps or milestones had to be overcome. A quantitative analysis, called DEFET, a business plan, a pilot test, et cetera. DEFET included: definition of functional, technical, and economic requirements, strategic goals, risk and opportunity analysis, costs, margins, and prices, development cost and time, commercial objectives in volume and market share, launch plan, payback financial profitability.

Since the first DEFET the reliability of the analysis has been increased. Deviations from the market, technical, and financial prospects have been reduced. At the beginning, project goals and needs to be addressed changed throughout the development of the project and there was a difference between the original value proposal and what finally was launched to the market. Emphasis has been put on the strategic goals of each project and on the benefits for the company. Estimates for the financial data are shown in brackets. After a first approval and in a second phase, DEFET analysis is conducted in much more detail with cost estimates in cents of euro, and no change in the strategic goals is allowed. Information of the project is accessible through the intranet to all the individuals involved in the project being developed.

As an example, the Task M50 was launched to the market in 2004, but it was originated in a brainstorming session held in 2000. In this session, under the title “Ideas for innovation around dumpers,” 308 general ideas emerged which were classified in several categories. From this total amount, 185 were selected, 90 considered radical and 95 incremental, according to the classification criteria stated in the AUSA Innovation Plan. A second selection was carried out ending up with 11 ideas, and a third one yielding to 6 surviving ideas. For the second and third processes, selection was done through voting. The final 6 ideas were conceptually developed. A first concept was submitted for approval in 2001. A prototype was shown in 2002, with a benchmark with competing products. The vehicle was developed during the period 2002-2004 and it was shown to the sales force and the distributor network in 2003.

Some changes have been done recently in the innovation organization chart. A new department, Innovation Management, has been added reporting to the Corporate Development Department. Business Strategy has disappeared formally in the organization chart and its responsibilities have been assumed by Manuel Perramon, head of the Corporate Development Department, and Anna Maria de Blas, head of the Innovation Management Department. *“We have seen that it does not make sense to keep a separate department nor a person fully devoted to think of new businesses.”* New Concepts has also disappeared formally *“as the ideas issued –with the sole exception of the Task M50- were brilliant but unviable.”* New Concepts has been integrated within R&D, a department which is part of the operating organization, *“in an attempt to increase the likelihood of issuing viable ideas.”*

The multi-service vehicles

In order to depart from the cyclical construction industry and gain business sustainability, AUSA has diversified the product range by launching a new product line, the multi-service vehicles, conceived for a wide range of functionalities, depending on the accessories assembled.

This kind of product innovation *“takes years of studies, tests, and selling effort, and once you have the vehicle defined, then customer education is required. When the client sees these products so innovative for the first time, the usual comment is: ‘very nice, but what is this useful for?’ It is necessary to show them the economic benefits of such a product. Launch takes time because habits have to be modified and a lot of functionalities must be pointed out to make the purchase profitable enough. The best way to convince the client is to assemble an accessory and to do a demonstration. If the advantage is so evident, no verbal reasoning will be needed.”* Moreover, it will take time to identify market needs suitable to be met by the vehicle as it is currently conceived. These new functionalities will be achieved by assembling new accessories. But *“the only way to detect customer needs not currently fulfilled is to do field work; visit clients, visit trade fairs, ask questions...”*

The multi-service vehicles product line requires functionality specialization and also market specialization. A model has been developed to attack the German market where this type of vehicle is better-known.

This new product line is interesting for AUSA as a departure from the traditional markets and also because there will be less competition in this niche market and they expect the margins to be high, improving the company's average margin.

Ecosite

AUSA has created a new business called EcoSite based on the classification and disposal of construction waste. *“It is not a machine –an advantage in terms of diversification- but we continue being in the construction industry –a disadvantage.”*

The launch of the new business has coincided in time with the issue of a new legislation forcing the works to submit a waste plan. The service ensures that all the waste is classified when it is generated inside the work and disposed by categories. The service consists of a waste plan specifically designed for each particular work. Although the service is conceived to use a set of new containers designed *ad hoc* and the transportation of the waste to these containers is primarily expected to be done with AUSA machinery, *“the real value contribution is not the machine but the service.”*

Manuel Perramon said:

Observing the works in which our vehicles run, we saw that the dumpers transported waste. Thanks to that we acknowledged the problems associated with such quantity of waste in the works that makes the work inefficient and the place unsafe, disordered, and dirty; non-ecological, in a single word. We thought we could contribute with solutions from inside the work that did not exist in the market. The synthesis of our thoughts was: “any waste has to be classified at source; no waste can be generated without a destiny.” The idea of a container for each type of waste followed after experimentation.

EcoSite was originated by the daily observation of the works mentioned by Manuel Perramon, but is the result of the aim to conduct the innovation in a formal way through the implementation of the above-mentioned AUSA Innovation Plan. A system to seek ideas for new businesses was structured and put in practise. Brainstorming sessions were arranged to extract ideas from employees, distributors, and end customers. AUSA created multi-departmental project teams, and they hired a consultant company with expertise on identifying new business opportunities and helping companies to create and spread innovation spirit within organizations. They also did a benchmark with other European countries.

They gave the consultant company the job of analysing new business opportunities for AUSA, starting from a matrix of potential niches built crossing new industries and functionalities for these new industries. Several promising new industries were identified such as building restoring, some types of public works, waste management, et cetera. *“The challenge was great. Identifying new products is not so difficult. Identifying new unmet needs means anticipating the future.”*

EcoSite was born *“after a lot of research.”* They conducted the research in two fields, the technical and the commercial. The technical required to compile and read all the legal regulations about waste management, to write the procedures, and to set the calculation formulas to show the benefits of the initiative to the potential customers.

The commercial required to establish a tight relationship with some construction companies to get a first order even for free to conduct a pilot test and demonstrate to themselves the viability of the initiative and the economic benefits for the building company. The two fields were parallel, being the technical conditioned to the ability to experiment thanks to having a first job and the commercial conditioned to the impossibility to submit real data about the benefits. They remembered that the commercial task was one of *“breaking up stone”* and the entire project was one of *“having one full time person without raising any invoice during several years.”* They think that *“confidence, persistence, and perseverance”* have been the key of the success of this business opportunity. *“Not having halted the business despite having spent three years without any tangible result.”*

EcoSite is based on the differential in cost per ton or in cost per cubic meter between disposing the construction waste mixed and classified. The business idea takes advantage of this differential. Up to now, the waste management inside the works has been chaotic, and the waste has been disposed completely mixed. Doing a benchmark with other European countries, AUSA saw that in The Netherlands, with higher differentials than in Spain, there are transfer plants where the mixed waste is classified and disposed to the proper rubbish tip. *“We analysed the system and concluded that it was crazy, as things should be properly done since the beginning, without creating systems to correct a wrong way to work. We thought a lot about this issue. If we go into the work –we told ourselves- and we are successful in getting the waste properly classified, thanks to classifying it at source when it is generated, the entire process will be clean.”*

AUSA has had to deal with the vested interests of the transfer plants already built and against a general belief that it is easier to manage a transfer plant than to implement a new culture in hundreds of works. *“But we said: ‘we will go to the works and we will implement the culture of classifying at source.’”*

AUSA conducted finally some “business experimentation” since they arranged a pilot test in a large and emblematic work, the refurbish of the Palau de Montjuïc in Barcelona which was a success with the workers remarking the improvement of the work environment, clean and without waste everywhere.

At the beginning the problem was that the benefits of the system were not quite visible because the cost differential was tight. Today the cost differential is high and everybody wins.

The business consists of doing a plan and a budget for each work, taking into consideration the technical data from the work and the type of waste to be generated and disposed, and the implementation of that plan which main phase is the training of the workers, carried out by inspectors from AUSA. The philosophy is each type of waste to a predetermined container.

A client education process has also to be done to show the benefits of the system in terms of savings for the construction companies who still do not see more than costs. Budgets use to be tight and the service is initially perceived as a cost increase rather than as a saving. AUSA already did a similar education process when they built the first

dumpers in 1962. They ceded for free some of them to the construction company in charge of the Madrid underway works with the result of a great success.

Training of the people involved in the work is one of the key success factors. Habits have to be changed and are deep-rooted. The task is difficult because there are workers from different companies and they do not usually share an ecology conscience. Therefore, one of the goals is to increase and spread this ecology conscience and get a real commitment to follow the rules, which is done even publishing rankings showing who is properly classifying and who is not.

AUSA is now promoting the new business with the major Spanish building companies. Successful pilot tests have been done with all of them. EcoSite is living a phase of expansion. They expect a “boom.” *“It is exploding in our hands. We are facing an exponential growth of the demand.”*

As said before, to lead the Ecosite business line a new person was appointed with expertise in the construction industry since he was managing works and knows the business from the other side. He has both technical and managerial skills.

However, *“the great handicap is how to protect the business; at the end it is not more than a procedure that it is not so difficult to copy.”* They can not patent it because it does not incorporate any technical novelty and they are not offering any technology “embedded” in the service. The containers, the only feature that is suitable to be protected, can be easily copied. Therefore, the business consists of a procedure which can be copied or imitated, and any company can do it easily.

They do not consider the years in advance as a strong competitive advantage because any potential competitor may copy it without having to spend the years of experimentation they have spent. Moreover, *“we have been experimenting for four years before raising the first invoice and we have been invoicing for just one year. So that we have devoted five years to the business which is the time in advance in regards to any copier or imitator. In addition, the provision of the service requires an array of different steps which cannot be thought of unless someone has done it during some time. A copier or imitator should learn what we have learnt in five years of experimentation and tests. There is just one quick way to start this business... hire the AUSA team. The transfer plants are also potential competitors. They know the waste and how to classify it, but they do not know what happens inside the works, they are not used to deal with the workers who sometimes are from different external companies, and their procedures are different, with the use of special machinery, et cetera.”*

The only protection they may have is a notary act stating that they were using the procedures at the date. In case of any litigation for unfair competition the act could be submitted. But the act only would show that AUSA was using the procedures at the date, and if the date of the notary act was previous to any other, this would mean that AUSA was first in regards to the unfair competitor.

They believe that the real success is *“having positioned the brand AUSA in the works with our Ecosite procedure”* which reinforces the power of the brand in front of all the big building companies.

Aixendri summarized:

It has been a real structured process of innovation. We do not believe in spontaneous innovation, in the typical genial idea. This may happen once in the history of a company but as an isolated event. We believe in innovation as a long-run work. It is a really serious process evolving as the company transforms itself. We have other things started in the incubator which are in “lab phase”... In order to have a business idea suitable to launch to the market it is necessary to deal with plenty of them.

Where does innovation come from?

Asked about where does innovation come from, Aixendri pointed out:

It comes from market observation, from a systematic analysis of the changes in order to convert them in businesses. We rely on our ability to observe and our ability to create a human team being alert. Now we have proposed ourselves to come from the industry’s trade fairs we attend with a pair of ideas. That is not a benchmark. A benchmark is something limited, consisting of looking at the competitors’ evolution. The question is: what can we do better and different? For us that is innovation, better and different. Better means with higher value contribution and different is related to what can be found in the market. Better but the same is not innovation or is incremental innovation. And different but not better is nothing because we are not contributing with more value. Therefore the two conditions must concur: better and different.

There are two sources of ideas: from inside the company and from suppliers, distributors, and end users. From distributors and end users the inputs are mainly suggestions about the product. *“It never happens that someone from the street comes with a promising idea...”*

Ideas from inside the company –which may be free or suggested- are rewarded with recognition, gifts, and eventually pleasure travels, but never with money. *“Although there is extensive literature about this subject and we have written several internal documents, we have not been able to establish a system to share the savings from an idea, making some parts: one for the creator, another for the social fund, and a third one to fund future innovation projects. It would be needed more courage from the company.”*

About the origin of ideas, *“sometimes an idea may be originated in the market, but there is an ongoing process, and finally it may be difficult to remember where the idea was originated if you do not review all the historical data.”*

They believe that identifying new unmet needs is easier today thanks to our ability to access and manage a lot of information, and to monitor what is happening at the other extreme of the world. *“Sometimes identifying new unmet needs is just opening your vision spectrum and looking at what happens far away from here instead of looking at the immediate zone we are controlling. Sometimes it consists of implementing here ideas from leading countries.”*

They believe that innovation requires technical knowledge as well as market knowledge. The paradigm of a good innovator is the person who *“visits trade fairs and see ‘things’ where common people do not see anything. That is an innate ability but it can also be trained.”* Technical knowledge without market knowledge may result in products difficult to be marketed or products for which specific functionalities must be found before marketing them. They recognize that this has happened in a product line. *“The product is useful for everything. It has so many functionalities that finally it is complex to market it for a specific use. In view of that, maybe it is better to offer products to fill specific market needs, or to go from the market to the idea instead of from the idea to the market. Maybe it is better to allocate resources to identify existing unmet needs and offer a solution instead of creating nice products and later try to sell them. In the last case the commercial effort is so huge and marketing the product takes so much time that the payback is far longer than three years which is the company’s policy.”*

They recognize that one of the weaknesses of a separate innovation organization is the risk to create products difficult to be marketed and then have to go from the idea to the market.

The interviewees recognize that one of the drivers of innovative ideas has been Maurici Perramon, co-founder of the company.

AUSA innovation process

AUSA follow a sort of “discovery-driven plan” in product development. Since the initial idea to the final definition they conduct pilot tests which retrofit the system. *“That is a “cooking” process through which one learns more and defines the business in more detail as the pilot tests develop.”*

Before starting any innovation project, AUSA does a benchmark process, but this analysis just provides a twenty-five percent of the total knowledge required to successfully launch a new product. *“We start the conceptual definition with this twenty-five percent of the market knowledge. The remaining twenty-five percent to reach a total fifty percent is acquired once the product is already working in the marketplace.”*

As explained before, AUSA set up an innovation organization separated from the operational organization. The operational organization has its own systems to gather information and contribute with ideas. *“Activate those systems is responsibility of both the innovation and the operational sides, and the innovation side has the mission of keeping the neurons of those in the operational side active enough.”* Once the information has been transmitted to the innovation side, those in the operational side continue with their day-to-day issues. The inputs coming from the operational side and the market are “cooked” by the innovation side without interfering with the operational side, and once they are ready for discussion they are submitted to the two linking committees, the Strategic Planning Committee and the Product Strategy Committee, constituted by a mix of persons coming from both the operational and the innovation sides, as well as the board of directors. *“The outcomes of our innovation process are due to our way to organize it. Possibly there are other ways that may deliver the same or even better results, but ours do work. We feel comfortable with this organization, but it will evolve when needed. It is not eternal. The main strength of this particular*

organization of innovation is that people in the innovation side does not have the short-term goals pressure. There are two different roles.”

The existence of a separate innovation organization has contributed to make visible across the entire company that innovation is an important issue and that the bet for innovation is firm. It has also allowed communicating this particular innovation culture within the organization and making the operating units full conscious. It has also contributed to the external image of an innovative company.

Initially, the Corporate Development Department was composed by three departments with a written mission: (i) Product Strategy (“*detects future market needs and defines proposals for new products*”); (ii) Business Strategy (“*seeks to create businesses that do not exist in the market*”); and (iii) New Concepts (“*in charge of developing conceptual ideas for new products*”). As explained in another epigraph, Business Strategy and New Concepts disappeared formally in the organization chart and a new department, Innovation Management, was added “*in charge of generating and selecting ideas that could drive to potential product or business opportunities.*”

Reporting to the board of directors there are three committees directly related to innovation with a written mission: (i) Product Strategy (“*assess product innovation proposals*”); (ii) Strategic Planning (“*in charge of updating the strategic plan, following it up, and modifying it to adapt it to the market evolution*”); and (iii) Product (“*in charge of commercially launching the new products.*”)

The innovation projects are managed by a project team lead by a project management and composed by staff from all the functional areas. This has required the evolution towards a matrix organization that is an overlap of the traditional vertical organization and a horizontal one.

The advantage of a separate innovation organization is that they do not face the day-to-day pressure. “*They have the freedom given by their budget and time. Nobody is going to overwhelm them. If they were integrated within the operating organization, they would face more pressure. Moreover, sometimes there is a lack of alignment and some promising ideas may end up in the lab.*”

As said before, one of the goals of AUSA innovation process is to generate ideas from inside and outside the company. The collection of internal ideas was first done thanks to an email address and an internal campaign to announce the initiative and inviting everybody to send ideas. Few ideas were received since the procedure was quite passive. Later an intranet was launched with a form to be used to describe the idea. Sometimes, idea collection is guided and specific issues or problems are suggested.

The collection of ideas is now more focussed than initially because they saw that collection of free ideas resulted in a lot of interesting but unviable ideas. Now they collect an average of forty ideas per year, below the initial expectations taking into consideration the number of employees.

Since they believe that “*ideas need to be developed and matured, and it is difficult to derive a new business model from a single idea in the status in which usually ideas are submitted through the intranet*”, a selection for further research is done within the so-

called innovation circles. In a first phase all the ideas are evaluated according to four criteria: (i) fit with the corporate values; (ii) enhancement of brand recognition; (iii) enhancement of the diversification strategy from the construction industry; and (iv) enhancement of the company internationalization. Diversification and internationalization have to do with the sustainability plan created to depart from the Spanish construction industry. These are the current criteria according to the current corporate strategy, but they will be replaced if strategy changes. The innovation circle members are the same than the Product Strategy Committee, persons who know the corporate strategy and the market. The authors of the ideas are not part of the innovation circle in which their idea is submitted and discussed. In a second phase ideas are voted and ranked. The first ten ideas in the ranking are further developed, including a brief market research, the patent situation, information about substitutive products, competitors, et cetera. These ten ideas are analysed in view of nine criteria classified in the four categories mentioned in the AUSA Innovation Plan epigraph (strategic, operational, financial, and commercial). Voting is simultaneous as the members use a device similar to a remote control, and they grade the ideas according to a scale from 1 to 5 applied to each of the criteria. Denying of ideas is communicated to the authors with a letter and a gift. It is written in the procedure that if an idea is successfully marketed, a percent of the first sales will be paid to the authors. But they never have paid such a reward.

The first intranet was developed internally by AUSA, but a second version has been developed by an external partner for three companies with similar requirements sharing an orientation towards innovation. The software is tailor-made. Ideas can be classified and all the information gathered during their development can be stored and accessed by the authorised employees. The software allows the automation of some management tasks; it is very useful bearing in mind the quantity ideas to be dealt with, including both the live and the past ideas. Now they have more than a thousand ideas in the database.

Suggested idea generation is done through the so-called creativity sessions which are specifically designed to capture focussed ideas related to a particular issue. Depending on the issue, external experts are invited to take part in the sessions. They are usually configured with people from different functional areas and hierarchical levels, including sometimes blue-collar employees. The issues are established by the Corporate Development Department. Attendants are also carefully selected. A previous information session is held to explain the rules of the game because for some attendants it can be the first experience. An expectation around the session is created before. Creativity sessions are a way to get product innovation ideas. They do not rely on them to get new business ideas which are expected to be generated thanks to the interaction with consultant companies. Sometimes creativity sessions become in-depth interviews or open discussions with experts in which they share their knowledge about a particular field. In a second phase they analyse this knowledge to think about what AUSA can do in terms of a new product or a new business.

Another source of ideas is the cooperation with universities and research centres. The participants in a master programme of industrial design did a final project about the Task M50 and some promising ideas emerged.

Finally, visitors to clients and trade fairs are given a checklist to guide the observation and get ideas.

As part of the Corporate Development Department responsibilities, an annual customer satisfaction survey is carried out. An external company conducts telephone interviews to a sample of customers following a questionnaire with questions about product, service, image, and a fourth part devoted to opinions about new products. In the first annual survey AUSA appeared in terms of image a leader in regards to the Spanish competitors but much behind the big multinational competitors. In the last survey, AUSA has joined the group of multinational companies and the Spanish competitors appear much more relegated.

The Innovation Management Department

It reports to the Corporate Development Department and it is lead by Anna Maria de Blas. Its mission is to contribute with ideas for new products or new businesses. Contribution does also include development in terms of commercial and financial viability. The contributed ideas have to be approved by the proper committee or the board of directors and are technically developed by the R&D Department.

De Blas is using trial-and-error in regards to the procedures used to generate ideas. Trial-and-error includes, for instance, changes in the compositions of the innovation circles.

She has complete freedom to experiment in regards to the ways to generate ideas. The main disadvantage of her task is the fact that *“every day you start with a sheet of blank paper in front.”*

The outcomes of the department are being monitored quarterly by the board of directors.

If one of the responsibilities of the department is to submit ideas to the committees, these ideas have to be submitted almost in the format of a business plan. *“My mission is to put the members of the committees in the disjunctive of saying yes or not. It is considered a failure if their decision is ‘we need further information.’* Leading and coordinating the business plan is the head’s responsibility, and she compiles information, drawings, timings, et cetera, from all departments. Before her appointment as head of the Innovation Management Department, she was in charge of writing the DEFET documents which are a compilation of the technical and functional specifications of a new type. She was commissioned this task with the challenge of increasing the reliability of the prospects.

The Department is trying to transfer the generation of ideas about products and processes to the operating units. That is part of the philosophy of making all the departments responsible for their innovation and not relying solely on a staff department like Innovation Management. This will be done thanks to appointing one person within each department to manage the departmental innovation. The final responsibility of both product and process innovation will reside in the head of the department to whom the innovation manager reports. The aim is to decentralize innovation but keeping full control over the processes and outcomes.

Compensation of the head of the Innovation Management Department includes a variable portion which depends on the achievement of several goals. Generally, for every year it means approval of three product ideas, one or two business ideas, conduct of four creativity sessions, a score of at least fifty free ideas, et cetera. Product and

business ideas have to be approved, not just submitted. The head faces a lot of pressure because part of these goals is out of her control. Ideas have to be approved by the Product Strategy Committee; despite the internal campaigns the employees may not send ideas, et cetera.

Innovation risks

In regards to the risk associated with new businesses, Aixendri commented:

Sometimes we ask ourselves: “do you think we should launch this business?” We then reverse the question: “why we should not launch it?” Probably, you will not find reasons neither for launching it nor for not launching it... The key is managing properly the resources assigned to it and remember that it is a long process that may take six or seven years since the conceptual definition to the break-even-point.

Another risk to deal with is the delimitation of the role of the people in charge of the business development. They are doing innovation on behalf and with the resources of the company, and the know-how they are creating is part of the company assets. *“The human resources management must take it into consideration as they may become confused any time. They are so involved and they have leaded the project so personally that they may feel that the project has been successful thanks to them. The know-how belongs to the company, not to the developers. That is evident in a pharmaceutical lab, but it is no so evident in a company where a new business is created. One may hear: “I am the business and if I am not here the business does not exist any longer.”*

The other risk associated with business innovation is the lack of protection. EcoSite, which is a novel idea that did not exist before and still do not have any competitor –the only similar idea is the transfer plant-, can not be protected. While the tools and containers are registered (the “hard”), the idea itself and the procedures (the “soft”) can not be registered since they are only a way of doing things that AUSA has developed. The only advantage AUSA has in regards to potential copiers or imitators is the work done since 2000, but this “first-mover advantage” is not really an advantage since *“while we invest 4% or 5% on sales every year in R&D, some competitors buy a unit of every new AUSA machine, disassembly it, and copy it. That is their R&D investment. They are faster copying than we are developing. That is why we need to have in the incubator several projects in progress in order to keep our leadership.”*

In regards to protection, AUSA registers all the components suitable to be registered, but the concepts can not be protected. Recently they have set up procedures to incorporate protection and official approval analyses since the very beginning of the development of the product. Up to now, the machines were designed without considering the options for both protection and official approval. Applications to the register were submitted once the machine had been designed and submission for official approval was done with the final prototype. *“We are going to design since the very beginning with the aim of getting protection, a change which will influence not only the design but also the technological solutions. We will know which parts of the machine are to be protected and the norms to be taken into consideration since the machine is being conceived. We will orient the projects towards patentability and approval. We think that the machine that has not been designed for approval is not finally approved.”*

A patent attorney fully involved in the design process has been hired to help AUSA with this process of “prior” protection and official approval. The aim is to protect as much as possible and get official approval as quick and easy as possible.

They get less than ten patents per year while their big competitors are getting from fifty to a hundred patents per year. Now the R&D Department –where the technological knowledge resides- is in charge of dealing with the new patent attorney which takes part in the development of the new products since the very beginning. Before, the dealings with the patent attorney were held by the head of the Innovation Management Department who acted as intermediary between the R&D Department and the patent attorney. Thanks to these changes they expect the number of patents granted per year to increase from now on. In addition some internal seminars are being held to explain what a patent is, what a utility model is, what can be and can not be registered, what is the procedure to apply. They are opened to all the employees who are in contact to technology (product managers, technicians, designers, et cetera).

AUSA innovation types

AUSA product innovation is based on three types of projects: (i) renewal, (ii) protection, and (iii) innovation. Renewal consists of making changes in a machine that has become obsolete on design and/or technology and keep it updated. Protection consists of a product strategy to become safer and stronger in the market (i.e. extending or completing the product range) in order to defend the natural markets and/or attack new markets. Innovation consists of launching a new product or a new business.

Innovation projects are the riskier ones, especially *“if they are radical. The market is not waiting for your innovation, it is really new, and the user has to become accustomed to it. For every innovation it is required an effort to educate the market. You can not launch any innovation to the market without educating it. The user must understand the innovation and perceive that it is better than what he had before, if we want him to get the habit to use the innovation.”*

AUSA tries to keep the right proportions among the three types of projects. Renewal and protection projects are easily introduced in the market thanks to the brand recognition and the agility of the sales force, and they must compensate for the efforts of launching innovation projects. They do not want to rely solely on innovation projects due to their long paybacks. *“If you assign all the resources to innovation you will face a problem of paybacks in the next three to four years.”* They recognize that paybacks of both renewal and protection projects are met before the expectation while the paybacks of the innovation projects are met much more latter, mainly because of the extension of the “education phase.”

In regards to crisis as triggers of innovation, Maurici Perramon thinks that *“the best time for launching innovations is one of recession, as you can supply few units to the market and test them. In times of euphoria, you are forced to supply hundreds of units at same time without the proper testing. Any fault may mean a replacement in hundreds of machines in the marketplace. A similar advice is applicable to manufacturing. You can better ensure quality in times of recession than in times of euphoria. And a recession –if not long- can be used to normalize processes.”*

About “market creation”, and the discussion in regards to whether user needs do already exist, although latent, or they are created, and about the role of companies to convince the potential users that their products may satisfy these needs, Aixendri commented:

The client is accustomed to use what exists in the market, and when you show him your innovation he says: “why do I have to buy it? Then you must use some arguments already designed since the very beginning, during the conceptual definition. Sometimes it is difficult to identify the client’s needs. After studying the vehicles that existed in the German market we proposed to Berlin City Hall a machine that was stronger, technologically superior, more “all-terrain”, and more flexible to do various jobs, and they said that they did not need flexible machines but specialized machines, as they assign a single job to each machine. We had to find smaller city halls. We have to focus our efforts on the potential clients that really may value our innovations, and we do really believe that the needs are already created.

If the innovation is so radical, the market education takes even more effort. If you conceive a radical innovation, at the time of marketing it you need to transform it in something more incremental, specializing the radical innovation to meet particular user needs. When you deal with a radical innovation, it takes six or seven years to become conscious of the magnitude of the innovation.

The future of innovation at AUSA

Once the range of the traditional products has been extended to meet the requirements of new geographical markets and the multi-service vehicles product line has been launched, with the market education still pending, AUSA is entering a new phase much more complex, one aimed at creating innovations for the next years. They seek to launch four or five projects per year. Aixendri said:

The new phase will be the conceptual definition of the products to be marketed, which are completely unknown today. Up to now the kind of projects was obvious: renewal, protection, range extension, market control, et cetera. And our global sales and distribution network ensured the success. But we are going to innovate out of our traditional product and sales network. We are going to innovate from scratch. That is why we will not have the know-how for the coming projects. The great challenge will be not only the conceptual definition, a challenge in itself, but the transformation of this conceptual definition in something marketable and with the company values “embedded”, a job for which we need to deploy a new know-how. Up to now, we had eighty percent of the requested know-how of the conceptual definitions. Now the know-how we possess on the coming projects will be at last twenty percent. And we need to develop this know-how through experimental trials. This had been impossible mission six or seven years ago because we did not even know where to start with, but today we are confident in ourselves and in our systematic approach to innovation. Although we do not know how they will look like, we know that we will do it.

Table 7.1. AUSA choices

CHOICE	TYPE	EXPLANATION
Target niche markets	Policies	To avoid competition with big multinational companies
Target the global market	Policies	They supply niche market products to as many countries as possible
Be the leader in all the niche markets	Policies	They do not supply the niche markets in which they can not be the leader
Wide product range	Policies	For each type of product they supply the entire product range (all sizes and capacities)
Launch complementary products	Policies	They supply other product lines not manufactured by AUSA
“Embed” the corporate values in the product	Policies	Vehicles are conceived and designed taking into consideration a list of corporate values
Rely on standard parts	Policies	Use of special parts is limited as much as possible
Outsource machining of non-standard parts	Policies	They do not manufacture the non-standard parts
Internal R&D	Policies	Vehicles are conceived and designed by an internal R&D department
Integrate suppliers in product development	Policies	Suppliers take part in the process of conceiving and designing products
Obtain international official approvals	Policies	Vehicles are conceived and designed since the beginning with the aim of obtaining as many international official approvals as possible
Obtain patents	Policies	Vehicles are conceived and designed since the beginning with the aim of obtaining as many patents as possible
Just in time	Policies	This manufacturing philosophy from the automotive industry was early implemented
Lean manufacturing	Policies	This manufacturing philosophy from the automotive industry was early implemented
Assembly line plant layout	Policies	This manufacturing philosophy from the automotive industry was early implemented
Use corporate values in the relationships with stakeholders	Policies	In the relationships with stakeholders (employees, customers, suppliers) a list of corporate values is taken into consideration
Product attributes	Policies	Vehicles are conceived and designed taking into consideration a list of attributes (robustness, et cetera)
Social fund	Policies	Human resources policy aimed at increasing employee motivation and commitment
Career plans	Policies	Human resources policy aimed at increasing employee motivation and commitment
Variable compensation	Policies	Human resources policy aimed at increasing employee motivation and commitment
“Pla Xispa”	Policies	Human resources policy aimed at increasing employee motivation and commitment
Strong post-sale service	Policies	They try to provide a better customer service than the competitors
Emphasis on long-term goals	Policies	They prioritize long-terms goals (to short-term goals)
ROE strategy (instead of growth strategy)	Policies	They prioritize profitability (to growth)
Processes of ownership transmission	Governance	There exist formal procedures to guide equity transactions among the founding families
Board with external members	Governance	Independent board members provide with know-how and experience in related industries and fields

CHOICE	TYPE	EXPLANATION
Family members in management	Governance	Part of the founding families members are board members and managers
External CEO or managing director	Governance	They use to appoint a non-family member as CEO or managing director to facilitate replacement
Separate innovation organization	Governance	An innovation organization separated from the operating organization was set up reporting to the board of directors
Formal systems to generate, evaluate, and submit ideas (AUSA Innovation Plan)	Governance	As part of the AUSA Innovation Plan formal systems to generate, evaluate, and submit ideas were implemented
Classify at source (EcoSite business model)	Policies	EcoSite business model is based on classifying at source instead of classifying in a transfer plant
Business unit organization (EcoSite business model)	Governance	Since the launch of EcoSite, a managerial structure is created for each different business line
Appoint an outsider as business unit manager (Ecosite business model)	Governance	To avoid falling in the trap of managing a service business as an industrial business

Annex 7.1. Questionnaire prepared to interview AUSA managers

About the business model

1. AUSA business model consists of... (describe the business model in brief)
2. In what business AUSA is? Machinery for the construction industry? Vehicles for various works? A service company related to the vehicles supplied?
3. Where is really the “secret” of AUSA?
4. What is really new and different in AUSA with regards to the competition?
5. How AUSA was born?
6. What are the strategic decisions that have been shaping the business model throughout its live?
7. What are the “what to do” and the “what not to do”?
8. Who are the customers?
9. Do not you think that AUSA rely too much on the building industry and should protect the business from the cycle? How do you think AUSA could reduce this reliance?
10. Is it possible to copy, imitate, or replicate AUSA business model?
11. What are AUSA strengths and weaknesses now? And when the company was founded?

About the competition

12. Who are AUSA competitors?
13. What is the nature of the competition?
14. What are the features that distinguish AUSA from its competitors?
15. What are the features that distinguish AUSA products from its competitors’?
16. Is there any competitor with the same or similar business model?
17. From the main competitors, what is different? The product or the business model?
18. Does AUSA have a different competitor in each of its market niches?
19. Are AUSA Service, AUSA Finance, and AUSA Trading different from similar services provided by AUSA competitors to their customers?
20. Is AUSA performance higher that its competitors’?

About the innovation

21. How EcoSite was born?
22. Describe EcoSite in brief
23. How the multi-service vehicles product line was born?
24. Describe the multi-service vehicles product line in brief
25. Is EcoSite a business innovation while the multi-service vehicles product line is a product innovation?
26. Is the multi-service vehicles product line a radical innovation?
27. Will the multi-service vehicles product line become as important as dumpers and forklifts in terms of sales volume?
28. Are the multi-service vehicles new in the market? Have they created a new market? What kind of product did the buyers of multi-service vehicles use before?

29. To what extent are both due to the work of the Corporate Development Department?
30. Why the Corporate Development Department has changed since 2004? (Business Strategy and New Concepts are missed in the current chart while EcoSite and Innovation did not exist in the chart as of 2004)
31. Is innovation a random process of trial-and-error or can it be systematized?
32. Why did AUSA set up a formal organization devoted to innovation separated from the day-to-day organization and reporting to the Board of Directors?
33. In case of an organization for innovation integrated within the day-to-day organization, would EcoSite and the multi-service vehicles product line have emerged and been launched?

About the formal organization

34. Do the ownership and management structures affect the innovation output?
35. How can co-exist a day-to-day organization managed by an external Managing Director reporting to the Board of Directors with an innovation organization managed by a family member reporting to the Board of Directors and being part of the Board?
36. What was 3i (venture capital partner since 1993 to 2003) main contribution to AUSA?
37. What is the role of the external members of the Board of Directors?

About the future

38. How do you envision the future?
39. Does AUSA have any limits?
40. Is it possible to continue the current path of growth with the current business model?

About the innovation process (questions to be submitted only to Mrs. Anna Maria de Blas, head of the Innovation Management Department)

41. Your job consists of... (describe your job in brief)
42. Who do you report to? To the Corporate Development Department head or to the Managing Director?
43. What does your boss expect from you?
44. What is your background?
45. When and how did you join AUSA?
46. How are you being compensated?
47. Do you document all the innovation work?
48. Where innovative ideas come from? From the top or from the bottom? From outside or from inside?
49. Is innovation something you can manage?
50. Is it possible to learn how to manage innovation? Where?
51. Does AUSA integrate innovation in the strategic planning? How?
52. If you “discover” a “good” new business would you like to manage it?

7.2. ATRÁPALO.COM: “LEISURE AT THE BEST PRICE”¹

7.2.1. Company description

Atrápalo.com is an Internet portal that offers ticket reservations for theatres and other cultural and sportive events, table reservations for restaurants, room reservations for hotels, travels, and flights. Theatre and restaurant reservation is internally considered urban leisure and hotels, travels, and flights are considered holiday leisure. The company was founded by four entrepreneurs in 2000 and sold services for 200 million € in 2007.

Holiday leisure accounts for an 80% of the sales but only a 33% of the transactions. Although the business was born with tickets for theatres, this product line consists of lots of transactions but low prices and margins.

Atrápalo.com has more than one million registered users, half of them in Barcelona and Madrid, and almost all of them (95%) with ages from 18 to 45.

They are the number seventy from a ranking of the hundred Spanish most visited websites.

“Leisure at the best price” means that the main part of the products is offered with discounts over the full price, ranging these discounts up to a seventy percent.

Atrápalo.com as a travel agency competes in an industry with a modest growth. But online travel agencies have experienced annual growths of 100% in the last years due to the drain of clients from the traditional offline travel agencies. The online business is expected to grow in the future –maybe not at annual rates of 100%- because online sales only account for a 4% of the total.

7.2.2. Selection criterion

Atrápalo.com was selected for several reasons: (i) their business model is novel and unique; (ii) their sales have doubled every year since their foundation; (iii) they compete in a market with more players with different business models; (iv) they have innovated in different business dimensions; and (v) they are part of an industry with rapid and dramatic changes that make it difficult any formal process of innovation.

7.2.3. Research design

We prepared a questionnaire (see annex 7.2. **Questionnaire prepared to interview Atrápalo.com managers**) based on the information gathered from the following sources:

- Corporate website (www.atrapalo.com)
- Company press release of July 2007

¹ In Spanish, “ocio al mejor precio”

- Case “Atrápalo.com”, written by Rafael Andreu Civit, José Antonio Boccherini Bogert, and Alejandro Heredia Tapia.

We held semi-structured interviews with the following managers:

Name	Position	Date	Duration
Nacho Sala	Founder and marketing manager	11-16-2007	1,31'
Marek Fodor	Founder and technology manager	11-27-2007	1,11'
Nacho Giral	Founder and operations manager	12-03-2007	1,25'

7.2.4. Atrápalo.com business model

The business idea

The interviewees agreed that their business idea consists of selling inventories of seats for services provided by third parties. Fodor said:

Atrápalo.com was born with the idea of finding unsold excess capacity in any industry related to leisure and using the Internet as a channel to sell it to final customers at a price with discounts.

Sala said:

We sell inventories of services unsold through other channels. We sell them thanks to an online marketing campaign that seeks to attract people to these offers. We enrich those inventories with opinions and suggestions by those who have lived the experience before. People’s participation increases the value of the inventories which are used to solve a market need, how to fill people’s leisure time. We are resellers of others’ products that can not be sold. They give them to us and we transform them in two senses: first, we make possible to sell them through the Internet; and second, we add to them the value of consumer’s content.

Giral thinks that they are a travel agency that sells in addition urban leisure services, mainly reservations for shows and restaurants, and they make money thanks to commissions on the transactions performed through their portal.

They agree that what was new was showing the available hotel rooms, flight seats, show tickets, and restaurant tables given by the suppliers in an attracting way and adding people’s experience.

Choices and “what not to do”

Not to be an information portal was an important “what not to do,” a choice they made at the time of configuring their business model. *“We are not an information portal, a website with content about leisure time where to find ideas. We are a transactional portal where to buy or reserve seats for services related to leisure. We decided to focus our business only in transactions. We only show the product that is for sale.”*

Another choice and another “what not to do” was to sell only others’ product. They decided not to produce shows by themselves or arrange a holiday pack and offer them in the portal. They think that these are different businesses. In shows production and distribution are completely different jobs. In the travel business there is also a trend towards the pack arranged by the client himself. Instead of buying closed packs arranged by a tour operator, the client prefers to pick flights and hotel rooms and configure a circuit by himself. That is a growing trend in the industry, specifically in the Internet channel. They believe that creating a predetermined holiday pack, which was considered at the beginning, is now going against the market trend.

They produced a few musical concerts at the very beginning but those experiments did not satisfy them. They try to solve people’s leisure but with entertainment produced and trips arranged by third parties. *“We are intermediaries. Production is another business. We do not have plans to integrate the product from creation to sale.”*

Focus on distribution rather than in production relates to business model configuration. *“Focusing on a single and clear business model is paramount, and our business model is one of distribution. We are good at distribution, not at generation.”*

Another “what not to do” relates to the type of client. They refused to target corporate clients. *“Atrápalo.com-Corporations had been a departure from “leisure at the best price.” It had been another business. Corporations want credit and phone relationship, transactions are done by a secretary rather than by the end user, et cetera.”* Although Atrápalo.com has corporate clients they decided not to target this market segment, and during the discussions of this issue –which were recurrent- even considered to use a second brand and another website to finally target this kind of customers.

The main choice was the “online choice”. They decided to perform all the transactions through the portal as *“we are an Internet business.”* This choice conveyed them to two “what not to do”: (i) not to interact with the client with means other than the portal; (ii) not to transact with channels other than the Internet –i.e. a call centre or physical offices.

In addition to the “online choice,” which meant that the business was going to be *“a hundred percent online, and never by phone or in physical sites, and was going to be a completely different business from the traditional travel agencies,”* they also decided at the very beginning to put on the website just the information needed to order the service, another “what not to do.” *“We would never put a report about Egypt as if we were the National Geographic nor allow a forum about Egypt. We would put just the information relevant to make the purchase decision and opinions by past users to guide them. We are an e-commerce portal.”* This is consistent with the above mentioned refusal to be an information portal.

Another choice was the way of making money. In the original business plan they planned to get the revenues through banners, charging fees for displaying advertisements in the website. After some experimentation they decided to shift to commissions on the transaction price.

An important choice was also the price reduction philosophy, further commented in the next epigraph. This choice has the counterpart of not selling services at full price, a “what not to do”.

The back-office with people devoted to service was also a choice. *“There are people behind”* is one of their lemmas, in an attempt to transmit confidence to the potential online buyer. *“We decided not be a robot, not be distant, to be close to the buyer, to answer and sign all the emails, allowing the buyer to ask for his agent. That is part of our corporate values.”*

In the back-office there are programmers, commercials who are in charge of capturing product and dealing mainly with theatres and restaurants, and service employees who solve any problem the client may have. In holiday packs, reservations and transactions are done online but there is also a phone service to assist the client because the product is more complex, and the client has a lot of doubts and perceives a higher risk. In fact, once an online pre-reservation has been done by the client, a service employee contacts him to close the sale.

Another important choice was to in-house develop IS. They have now more than thirty programmers in charge, among many other things, to the website which is their sale tool. Fodor, technology manager, pointed out:

We knew how we wanted it [the IS], and it was clear that doing it by ourselves was much more cheap than seeking and buying an e-commerce package. And maybe at that time a package that allowed us to do what we wanted to do -mainly in the ticket reservation business- did not exist. We just reserve. Payments are done in the theatre or the restaurant. What we do is not purely e-commerce. And a system to communicate with the theatres and restaurants did not exist and had to be created.

And we placed a bet for open source technologies, for Linux, because we did not want to spend money on Microsoft licences. And when we started with these technologies we saw that we could do what we needed. The entire website has been programmed using these platforms that do not require the payment of licences, a decision which increases our profitability compared with the competition. In addition, tailor-made IS provides flexibility and shortens the time reaction because any modification can be made in-house and we do not have to wait until a new release. We are not limited by the amount of licenses in the number of servers and workstations.

They initially commissioned the software to an external partner, until they found out that it was a mistake because *“we depended completely on a third party who had other clients, we were always at the queue of their workload waiting for our turn, and we needed a quick time reaction. That is why we hired a programmer who was paid the*

double than ourselves to rewrite the software and scale it. It is a factor so critical that it has to be in-house provided.”

Another choice was to deal with very few tour operators in the travel product line in order to ensure a good service to Atrápalo.com clients. Concentration increases the bargaining power which in turn guarantees that Atrápalo.com clients will be given maximum priority. In addition to having few and select suppliers they are told since the beginning that the service to Atrápalo.com clients is paramount. *“In fact, the client perceives that the service provider is Atrápalo.com rather than an unknown tour operator. Although we are not the creators of the service, the user relates the product to the company to which they pays it. And solutions to problems or no problem at all increases customer loyalty.”*

Another choice was to create a brand with the contribution of an external communication company which shares their values. *“After each advertising campaign, the number of transactions increases as well as our differentiation in regards to the competitors. People perceive Atrápalo.com differently from the competitors, and considers us sexier in a similar way an iPod is sexier than a regular mp3 reproducer.”*

Products and sources of differentiation

Atrápalo.com offers five products –theatres, restaurants, hotels, flights, and travels- and is in two businesses –urban leisure and holiday leisure. *“Sometimes we face a conflict because we would like to establish a policy for the entire company, and this policy may not be appropriate for a single business, and the client may not understand why a policy applies to some businesses and does not apply to others.”*

As a consequence of being in two different businesses and offering five different products, Atrápalo.com competes against competitors that are different in each product or business. Instead of having some global competitors for the entire business, they face several types of competition, ticketing companies in theatre ticket reservation, and offline and online travel agencies in flights, hotels, and travels.

Reserving a ticket for a show is not the same than selling a flight. Depending on the product line the procedures are different and they have to perform different activities.

For instance, in order to sell show tickets or reserve restaurant tables they have to act as aggregators, dealing with each theatre and restaurant and establishing a commercial relationship stating the rules of the game –number of sets for sale, price, discount, commission, et cetera. Since aggregation systems do not exist in those industries and the suppliers are atomized they must aggregate the supply and display it in the portal.

There are several differences between Atrápalo.com and the ticketing portals. Atrápalo.com does not sell, just reserves. The clients pay the ticket and the bill in the theatre and the restaurant. They are not charged a fee for the service. Atrápalo.com offers tickets and tables with a price discount. Atrápalo.com users can not choose the seat from a screen showing the theatre layout. Atrápalo.com promotes the theatre play and the restaurant with official descriptions of the offerings as well as past user assessments and opinions. Just the opposite is true for ticketing portals most of which belong to financial institutions and use their cashiers networks to operate: they sell,

dispatch, and collect the cash; they charge a fee to the buyer; they sell tickets at full price; users can choose the seat thanks to a theatre layout displayed in the website or in the cashier; they do neither promote nor assess the theatre play or restaurant. The ticketing portals supply the theatres with an information platform to manage the sale of tickets, and charge them for installation and maintenance. Atrápalo.com does not supply such a platform and only uses an extranet to communicate with the theatres. Theatres use it to vary the number of seats offered in view of the sell of tickets in real time.

In the travel industry aggregation systems do exist in the form of hotel reservation centrals or GDS (Global Distribution Systems) to book flights as Amadeus or Galileo which do the aggregation work. In these product lines Atrápalo.com sells the service and gets a commission as any other travel agency. They complement this aggregated offer with low cost flights which are not aggregated since the companies sell them directly through their websites. Atrápalo.com offers low cost flights thanks to a technique called “scrapping,” consisting of tracking the low cost airlines websites and integrating them in the online travel agency in such a way that the navigator believes that he is visiting the online travel agency website while in reality he is navigating through the low cost airline website. As we explain later, this technique was first used by one of the Atrápalo.com competitors and quickly matched by Atrápalo.com.

In hotel booking Atrápalo.com connects with hotel reservation centrals but also offers rooms in hotels that are being approached individually by the portal. That is only possible when a portal has access to a large customer base which is the case of Atrápalo.com. For these hotels Atrápalo.com is a better channel than the aggregators and they would rely solely on the portal if Atrápalo.com brought all the clients they need.

As they neither create nor modify the product itself, a source of differentiation is the way they show the service and the way the client reaches the service. That makes the difference between booking to Atrápalo.com or to any other portal or company. An example is “La Lanzadera,” an innovation explained later.

Assessments, opinions, and suggestions from past users differentiate Atrápalo.com from other portals mainly focused on ticketing as ServiCaixa or Telentrada or flight search tools. *“Opinions are a sale facilitator to help users on their choice. They increase the conversion of visitors into buyers.”* Comments are also used to control the quality of both the product transacted through Atrápalo.com but provided by a supplier and the service provided by the portal and the employees behind it. There is a “manual” filtering process to avoid publishing inappropriate comments. Any complaint is dealt with the service provider and the unsatisfied user, and it is not removed from the website until they receive the client’s approval. The system is also considered a demonstration of the traffic through the portal and gives confidence and safety feelings to future users. *“We could not pay for that value.”*

They would like to combine different services instead of being a search tool of existing services that need to be sold. *“We would like to seat with suppliers and design new offers together, but it is now out of our reach.”* Now the combination (i.e. flight plus hotel) is occasionally made by Atrápalo.com and usually made by the customer himself.

They attempt to become a leisure arranger. *“People need somebody to help them to enjoy their free time. Our business is all about this.”* They target the clients that do not know what they want rather than the ones that want a ticket for a particular show. *“Our business is one of suggesting.”* That is the difference between Atrápalo.com and ticketing portals like ServiCaixa and Telentrada, which dispatch tickets to people who knew previously what they were going to purchase.

In theatre and restaurant reservations Atrápalo.com has so much market share that potential competitors do not have space to grow. That is considered by the founders as a strategic move. They need to corner the market to prevent the entry of any new player.

“Leisure at the best price” was another choice that shaped the business model and is another source of differentiation. They were the first emphasizing “at the best price,” showing the original price crossed out and remarking the reduced price, *“but later the competitors followed us positioning themselves in the price reduction philosophy.”* The company lemma shaped the business model to an extent that they have refused to sell tickets at full price for highly demanded events –such as Madonna or Springsteen concerts- even though they had had them sold in a few hours. *“We considered entering this business –selling at full price scarce tickets for mass events- but it would not be “at best price;” it would be a business of resale of tickets difficult to buy.”* One of the reasons for entering this market was that sometimes the best price is getting the desired ticket at any price. *“The best price sometimes is the best possible price or the only price at all. The best price could mean not to pay the resale prices of several times the original price.”* Recently, Atrápalo.com is also offering tickets without any price reduction, but price reductions and offers are displayed with maximum visibility since they want to remain “leisure at the best price” which is their positioning.

The founders recognize that in some services –flights- there exists no differentiation at all. *“Flights are the same for everybody. There is no margin for differentiation. We spent a lot of time thinking about the type of “details” we could attach to flights to make them more attractive and differentiated, but they resulted in just “details” with no value for the client. In flights the only source of differentiation relies on the purchase experience. “La Lanzadera” is an example of innovation in the way a user orders a flight. The product is the same but the purchase experience is funny.”*

In other product lines there is margin for differentiation. In hotels Atrápalo.com has created its own reservation central which allows more control over the product. For instance, the user pays directly to the hotel which is highly valued for some customers and Atrápalo.com clients benefit from price discounts and find attentions in the room or in the restaurant.

Cross-selling effects

Whether or not there exist cross-selling effects among the different product lines is a recurrent discussion within the management team. Sala, marketing manager, said:

At the beginning we thought that cross-selling effects existed and that the model would help us to convert clients of shows, restaurants, and hotels into global clients of flights and travels. We were convinced that the success of Atrápalo.com could come from this. But later we acknowledged that there

were few clients buying from all the product lines. People reserving tickets used to just reserve tickets, people buying travels used to just buy travels, and so on. The cross-selling effects are more visible in the fact that we can contact weekly with our registered clients, offering them a different item every week. It allows us to be in the Outlook in-tray of our clients. We have not promoted cross-selling initiatives because it was difficult from the technical point of view.

An initiative to promote cross-selling effects is “the cart,” a virtual space where all the items a user is ordering accumulate until a single transaction is performed and a single invoice is raised. This tool allows Atrápalo.com to suggest other items related to the items already ordered. Rather than suggesting services based upon past purchase experience, “the chart” is suggesting services that clearly match with the services he is ordering (i.e. if he is ordering a hotel room in an European city the system will propose to book a table in a restaurant near to the hotel). *“We try to offer services so attractive that it results difficult for the client to say no.”*

“The chart” was created from the acknowledgment that there are clients of two profiles: clients that know exactly what they want and access Atrápalo.com to buy, and usually buy the same type of service; and clients that are open to buy any type of service depending on the offerings in the website. *“The second profile is the most interesting for us.”*

Fodor commented:

Tickets are a drive to capture clients because it is easy and inexpensive to buy something of 10 €. Then our job is to convert the user that has already had an experience with Atrápalo.com into a buyer of products less differentiated but of higher price and margin. We can also offer something others can not, such as a flight, a hotel room, a table in a restaurant and a ticket for a show, all for the same day and in the same portal. That is a differentiator.

Giral said:

We do not have exactly quantified the amount of the cross-sale, but the theatre product line contributes a lot to brand recognition. In addition, it is a profitable business itself; so that we do not have to subsidize it to develop the other product lines. It has been a powerful entry point, especially during the first years when we had no budget for advertising and we faced competition in the travel product line by large companies with huge budgets. Then urban leisure made us popular and provoked brand awareness through word-of-mouth. Plenty of customers enter Atrápalo.com through theatres and restaurants and later buy travels. Urban leisure is a traffic builder category while the holiday leisure is a profit category, using retail concepts. And of course urban leisure is a differentiator from our competitors. We are not exclusively a travel agency. We are both an urban leisure and a holiday leisure agency. They have two different but complementary roles, the first driving a lot of people to our portal to make small purchases and generating a expectation about what can be found in

Atrápalo.com this week, and the second with products of less periodicity but higher revenues and margins.

The counterpart of the possibility of cross-selling is the loss of focus. As Fodor pointed out: *“compared to other travel portals that are specialists (i.e. just hotels or just flights) and that are not in other businesses, we are generalists in leisure and we need to remain at the top in terms of technology, website quality, and customer service quality, but multiplied times the number of different businesses we are in.”*

New products

Atrápalo.com is not proactive in seeking new offerings. They would like to have a department searching systematically for novel offerings, *“but that is impossible in view of our stage of development. We rely solely on the inventories offered by the market.”* They considered that they are selective in terms of quality at the time of approving a proposal by a new supplier. They acknowledge very soon whether a product does or does not perform as expected thanks to users’ comments and complaints, and if it does not perform it is removed quickly from the portal.

They “listen” to the market but they are quite sceptical about implementing ideas from the clients. *“If you ask the clients what type of experiences would they like that are not in the portal, they will propose activities such as adventure travels or extreme sports. But when you offer in the portal adventure travels or extreme sports, users prefer a weekend in Paris.”*

Market creation

The founders believe that Atrápalo.com has created demand and market in at least one of the product lines, the ticket reservation for theatres and, to a lesser extent, the table reservation for restaurants. *“The commercial argument has been: ‘give me the unsold tickets, and we will offer them with a discount through the Internet to the young people than are not your weekend clients of full price tickets who will not change their habits to benefit from the discount.’ If they had experienced cannibalization, the business would have ended up.”* And in fact they still keep the theatres and restaurants that first adhered to their portal. *“That proves that we are bringing them clients that they did not have, although we do not have data to assert that we have created market and that thanks to Atrápalo.com there is now more people going to the theatre or the restaurant or otherwise we have redistributed the existing clients throughout the week due to the discounts.”* They think that the clients of Atrápalo.com ticket reservation service did not go to the theatre before, mainly due to the price of the tickets. And that the clients of ticketing services as ServiCaixa or Telentrada continue buying tickets there, going to the theatre during the weekends, and paying the full price. There are clients that want to live a show no matter the price of the ticket. These differ in terms of profile from Atrápalo.com clients who visit the website without any prior idea about what to do that evening. Atrápalo.com profile has to do with: *“I have time, please recommend something to me... not expensive.”* And this kind of customer did not buy anything before because it did not exist.

They think that in the flights product line a demand has been created but not thanks to Atrápalo.com. *“People travel more frequently thanks the low cost airlines revolution. They have really created demand.”*

In the travel product line there has been a shift from offline to online travel agencies. Online travel agencies have opened a new channel that did not exist before. *“Part of the Atrápalo.com success is due to this shift. We have ridden on the wave created by this change.”* Many Atrápalo.com clients were offline agencies clients who saw that the online agencies were a “killer application” with more product variety, a more convenient purchase experience, and certain flexibility in terms of compounding “your travel pack.” The leading Spanish airline also contributed temporarily to the initial success of the new channel by selling online with a dramatic price reduction the same flights that was selling offline. In addition, the low cost airlines contributed to spread the idea that buying through the Internet is cheaper. *“They did a great marketing campaign for us.”*

The combined effect of the low cost airlines revolution and the shift from offline to online travel agencies has resulted in the market entry of many *“young consumers, 25 to 35 year-old professionals who are at the beginning of their careers earning medium to high salaries, entering the travel market for the first time, and finding out that the online channel is much more convenient than the offline alternative. Most of them even reach Atrápalo.com from work at working times.”*

Atrápalo.com does not target any specific market segment at this stage. *“Since 2000 we have grown and grown. The market was growing and we had to grow. It was not time to segment and micro-segment the market but to grow and gain market share thanks to providing a service of quality that rendered a positive word-of-mouth.”*

The offline travel agencies threat

There are two recurrent questions: (i) will there exist offline travel agencies in the future? and (ii) what will happen when the offline travel agencies establish their online branches?

As per the founders, offline travel agencies will exist forever or their extinction will take many years, because a lot of people prefer to order in physical offices. *“It is like the video which was going to mean the cinema extinction. Maybe street travel agencies will reinvent themselves as places to take a cup of coffee and talk about a travel with an expert. This will be an added value difficult to be provided online.”*

In regards to the second question, the offline travel agencies have their loyal customers and they may drive them to the online branch, but *“doing well in a new channel require knowledge and years of experience. We needed seven years without any prior background. Therefore, it will take for them at least two or three years. They will need less because they have a background and we were the first and they can copy us. They will have to refine the technology to offer the best prices in flights. On the other hand we have direct relationships with a lot of hotels and have them integrated in our own reservation central.”* That is a first mover advantage for Atrápalo.com and the online travel agencies.

It will also be difficult for an Internet branch launched by an offline travel agency to be perceived as inexpensive as the leading online travel agencies, and many consumers do believe that the online channels are cheaper. *“We expect that the consumer perceive the online prices of the offline travel agencies to be the same than in their physical stores, higher than ours. The key question is how the traditional travel agencies will do to change these perceptions.”* Some traditional agencies have acquired portals using other brands and domains. But up to now, none of the online businesses launched by traditional agencies has achieved the volumes of the pure online businesses.

“On the other hand, they will have to manage two conflicting channels.” Therefore, they will need the skills to do so.

A stake by an American venture capital firm

An American venture capital firm took over a thirty percent of Atrápalo.com equity. A part from getting a financial reward for the four founders, it has other contributions to the business, because this firm acquires minority stakes in Internet businesses worldwide and Atrápalo.com can take advantage of their expertise. *“They behave as an external board member. As they have a lot of stakes in Internet companies worldwide, they detect global trends and share them with us, much before we become aware of them by ourselves.”* On the other hand, the four founders continue holding the majority of the ownership. The venture capital firm seeks to increase Atrápalo.com value as much as possible in five or six years and increase its notoriety in the Spanish market. All their advices are oriented to both goals as they plan to sell their thirty percent to a potential buyer or even to the same four founders. Or maybe they propose an IPO as a means to divest.

One of their contributions has been to focus on hotels as a strategy to diversify from flights, which is an undifferentiated and vulnerable business. Vulnerable because the airlines may change the rules of the game as have done in the past. Some Atrápalo.com competitors are eighty percent flight portals. Another contribution has been an extranet to communicate with restaurants through which they give to Atrápalo.com information about the tables to be reserved and Atrápalo.com give to them details of the reservations. For the restaurants is like a digital reservation book.

According to Fodor, this venture capital firm invested in Atrápalo.com because:

They saw an established brand, and they believe on the future of Internet strong brands. As differentiation can not come from the product, it must come from a brand. They also saw the urban leisure business line which is another differentiator. They also saw a management team. And finally they saw company health and a trajectory of profits indicating a large capacity to generate cash. Differentiation and profits meant value for them.

By contrast, in the 2000 none of the venture capital firms placed a bet on Atrápalo.com because we had only a management team, but without experience, and it was not so clear then that the travel business would grow as it has grown. And in addition the Nasdaq fell, they had invested wrong in .com, all the projects exploded on their hands, and they had no money from investors for new projects.

This venture capital firm also seeks businesses that generate cash and they invested in Atrápalo.com because a travel agency generates a lot of cash, collecting upon order and paying later. In addition they saw in Atrápalo.com a committed management team, a strength considering that they do not want to take part in the daily management of the companies in which they invest. They just place bets and this way of doing business allows them to reach quick agreements. They face higher risks compared to the firms that follow long due diligence procedures, but they have developed two skills, detecting a good business and placing a minority stake for a reasonable price.

In regards to their communication, “*we send them a monthly report and exchange emails regularly. We meet only a few times during the year. They do not interfere as they do not have staff enough to do it and they have a minority stake. They know that we control the company and they can just ask for information and give advice, but they can not make any decision nor force us to make a decision. That is exactly what we wanted, somebody who did not interfere with the daily management.*”

In regards to their contribution to Atrápalo.com, Giral commented:

We benefit from high level contacts, the possibility to meet with the principals of the most important .com worldwide. And also focus and alignment towards value generation. We are now more pragmatic than before. For instance, one of our weaknesses was a lack of courage to grow inorganically. Thanks to them we are now considering acquisitions. Sometimes we have been isolated, competing within our industry. Dealing with them opens own mind to what is happening in the USA, in China.

The organization

The main weakness of Atrápalo.com is a gap in management between the four founders and the employees. They recognize that they are a bottleneck and that they must hire “clones” of them to focus themselves in creating and developing new businesses within Atrápalo.com or even out of Atrápalo.com. “*Today we can not absent Atrápalo.com for three months.*”

The organization chart is quite simple, with Manuel Roca as managing director and finance director, and responsible for theatres and restaurants, Nacho Giral as responsible for travels, Nacho Sala as marketing director, and Marek Fodor as responsible for technology. The business is in Roca and Giral hands and they deal with clients and suppliers, while marketing and technology are functional areas. They have a similar percent of equity, and since they are partners there is not a hierarchy among them. They agree all the important decisions. In case of disagreement “*we would find external advice.*”

The future

They have plans to replicate the model in other geographical markets, maybe in Europe or Latin America, maybe partnering with local online travel agencies and adding the Atrápalo.com urban leisure business line, or maybe offering just the most simple products, such a travels, hotels, and flights, and reconsidering whether or not it makes sense to export the theatres and restaurants offerings.

Fodor commented:

Things change so quickly in this industry that probably we will have to change our business model. It will be different in five years. And we will do it without strategic thinking or formal procedures. We are good at extracting trends from data we have access to and quickly react. The only thing we know is that we will have to change our business model because it will be threatened by emerging concepts as meta-search tools –search tools that will collect data from all the websites including online travel agencies and low cost airlines and offer the results in a unique website- or because what today is an advantage –“leisure at the best price”- may become a liability tomorrow.

They plan to continue growing more than the growth of the online travel industry. But they will double only if the online travel industry doubles. Doubling becomes more complex every day.

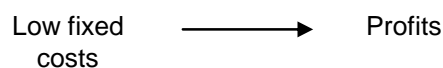
Since an organic growth in Spain is difficult to sustain, they plan to grow acquiring other companies and expanding internationally. In regards to acquisitions, they seek market share, increase their user base, as well as a market niche specialist with a different product and a loyal customer base (for instance, long distance flights, five-star hotels, rural tourism, et cetera).

They believe that some projects should be developed out of Atrápalo.com because *“Atrápalo.com has its own trajectory and development. Atrápalo.com has a focus and we can not change it.”*

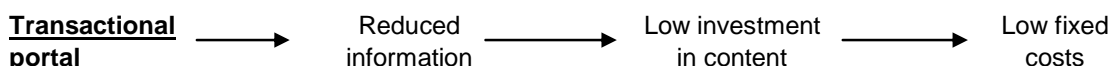
They have also considered a different positioning with a different brand. Or portals specialized in a product line. Specialists are stronger because the user has no doubt about the service being offered *“which sometimes is confusing in Atrápalo.com with so many product lines.”*

7.2.5. Atrápalo.com business model representation

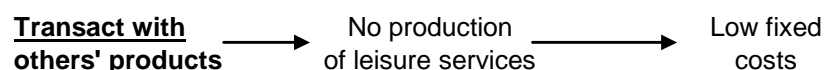
Atrápalo.com tries to achieve profits by lowering its fixed costs:



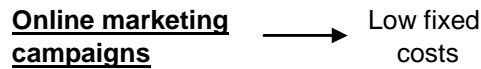
They lower their fixed costs thanks to being a transactional portal and, therefore, minimizing the information showed in the website:



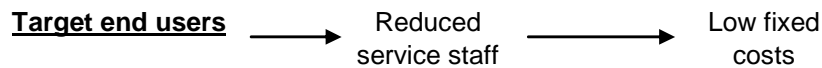
They lower their fixed costs by focusing on distribution and renouncing to production of leisure services:



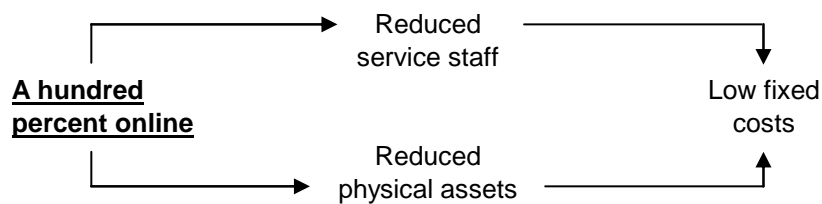
They lower their fixed costs by doing online marketing campaigns rather than conventional “physical” advertisement:



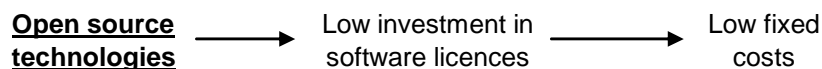
They lower their fixed costs by targeting end users who require less service than corporate customers:



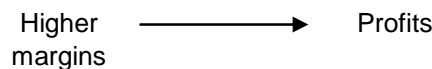
They lower their fixed costs by being a hundred percent online, a choice that reduces the requirements of service staff and physical assets (call centres, offices, et cetera):



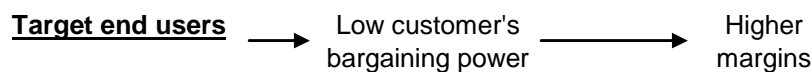
Finally, the use of open source technologies reduces their fixed costs in terms of software licences:



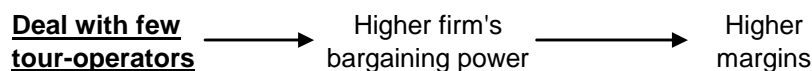
Atrápalo.com tries to achieve profits by achieving higher margins:



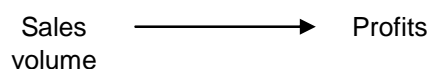
They achieve higher margins by targeting end users who have less bargaining power than corporate customers:



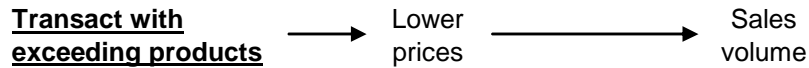
They also achieve higher margins by dealing with few tour-operators and having higher bargaining power:



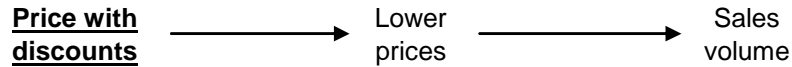
Finally, Atrápalo.com tries to achieve profits by achieving a large sales volume:



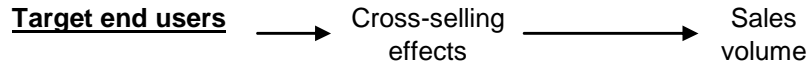
They achieve a large sales volume by transacting with exceeding products whose prices are lower than those of the regular products:



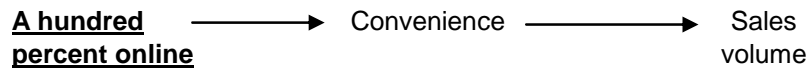
The discounts also reduce the cost to the customer and increase the sales volume:



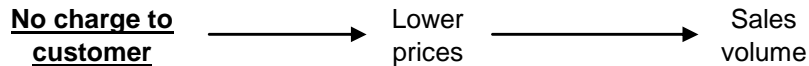
Cross-selling is possible targeting end users and difficult targeting corporate customers who are used to order just the service they need:



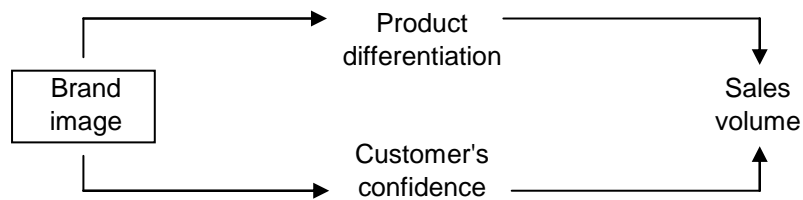
Ordering through a portal is convenient for those who do not have time to contact a call centre or visit a physical office; therefore, the increased convenience results in higher sales volume:



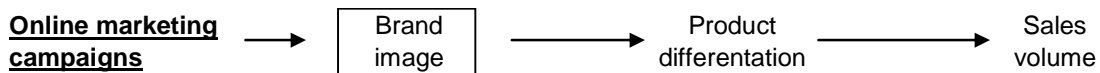
No charging any fee to the customers also reduces the cost to the customer compared to rival portals and increases the sales volume:



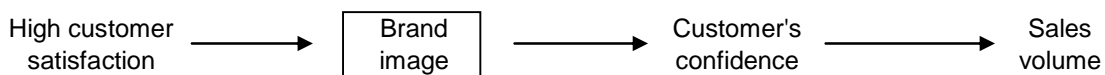
A large sales volume is also achieved thanks to the product differentiation granted by the brand image of Atrápalo.com and thanks to the customer's confidence on the portal derived from the brand image:



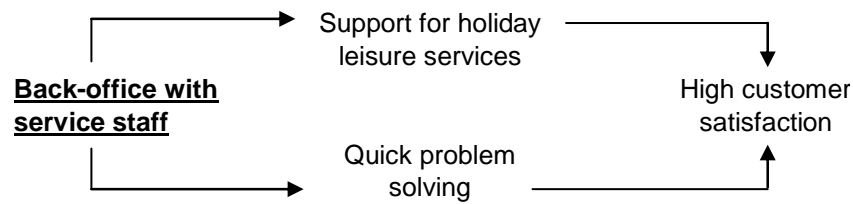
On one hand, Atrápalo.com brand image is the result of the online marketing campaigns:



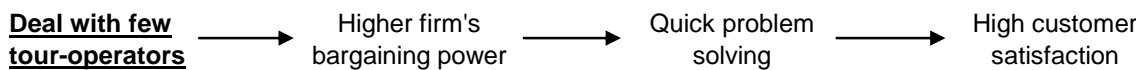
On the other, Atrápalo.com brand image is the result of a high customer satisfaction:



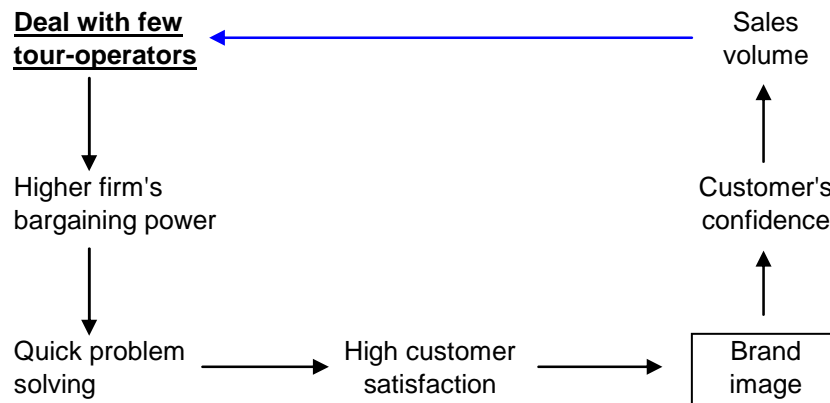
In turn, a high customer satisfaction is achieved by having a back-office with service staff for customers who have ordered expensive leisure services and to solve any problem quickly:



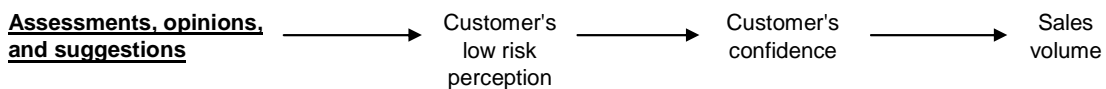
A high customer satisfaction is also achieved by dealing with few tour-operators and taking advantage of a higher bargaining power:



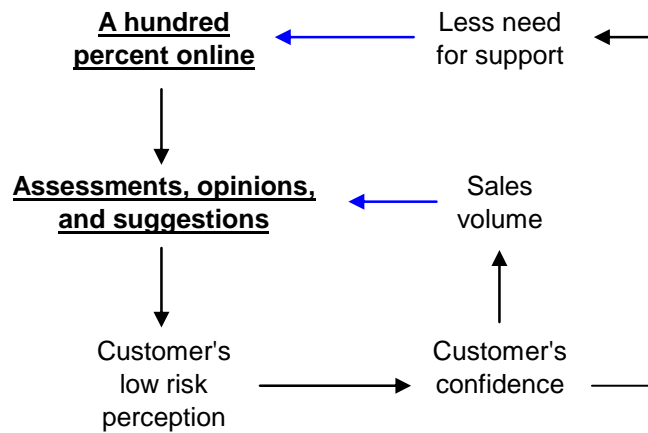
Combining two of the figures we can identify a first virtuous cycle:



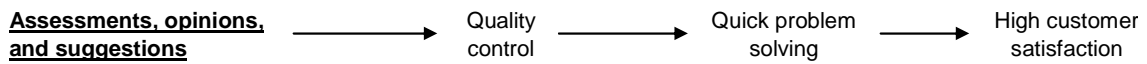
They attach assessments, opinions, and suggestions from past users to the leisure proposals shown in the portal. Potential buyers may read them and decide on the basis of such information; this reduces the risk that such potential buyers may perceive associated to an unknown leisure activity, restaurant, or hotel:



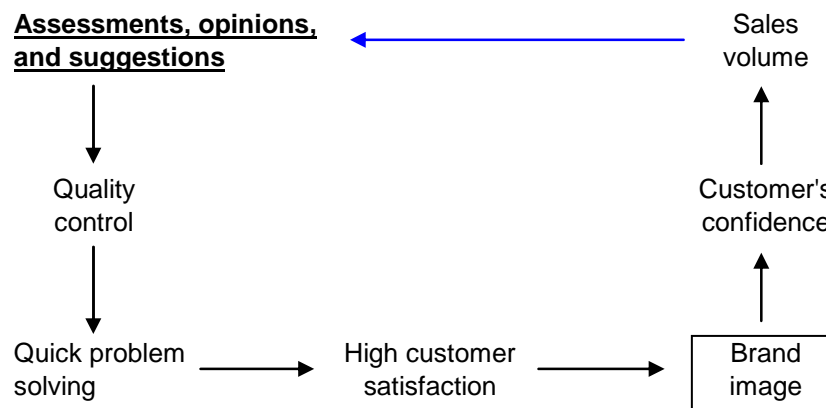
The choice of attaching assessments, opinions, and suggestions from past users to the leisure proposal shown in the portal originates a second virtuous cycle. Opinions reduce the risk perceived by potential buyers, increase their confidence, and propel the sales. More sales result in more opinions. However, attaching the opinions to the leisure proposal is facilitated by the use of a sales platform like an Internet portal. The choice of being a hundred percent online makes possible the attachment of opinions. But at same time the customer confidence in the platform generated thanks to the reduction of the risk perceived due, in turn, to the display of the opinions of past users reduces the need for support that potential buyers may experience at the time of ordering a leisure service and reinforces the choice of being a hundred percent online, which means not to use a call centre or physical offices and rely only on a website.



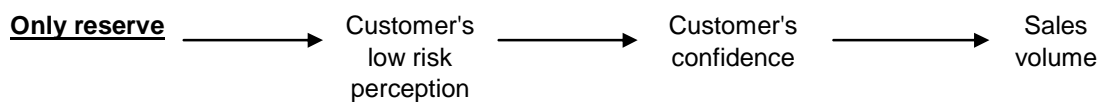
Atrápalo.com also uses the assessments, opinions, and suggestions of past users to control the quality of the service provided by the portal and the quality of the leisure services themselves. Quality control allows them to solve any problem quickly and results in a high customer satisfaction:



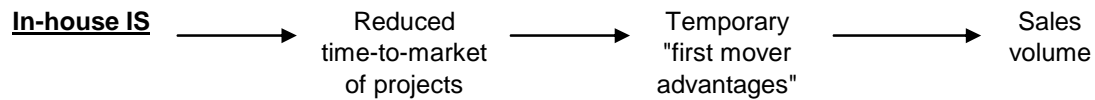
Combining two of the figures, we can obtain a third virtuous cycle. Opinions are used to control the quality and solve any problem quickly, a source of customer satisfaction. A high customer satisfaction propels Atrápalo.com sales thanks to reinforcing a brand image that confers confidence to the potential buyers. More sales result in more opinions.



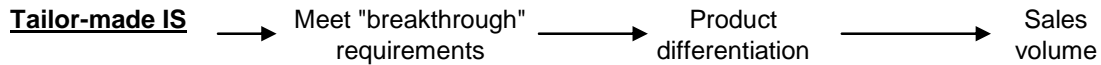
Other choices also propel Atrápalo.com sales. Only reserve –and allow to buyer to pay in the theatre, restaurant, or hotel- also reduces the risk perceived by the customer and increases the customer’s confidence on the platform:



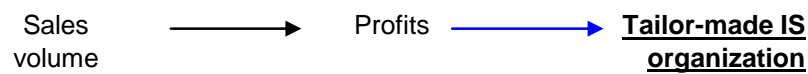
In-house developed IS allows Atrápalo.com to reduce the time-to-market of new projects compared to the rivals that have IS development centralized in the headquarters. This confers to Atrápalo.com a sort of temporary “first mover advantages” that results –almost temporarily- in more sales:



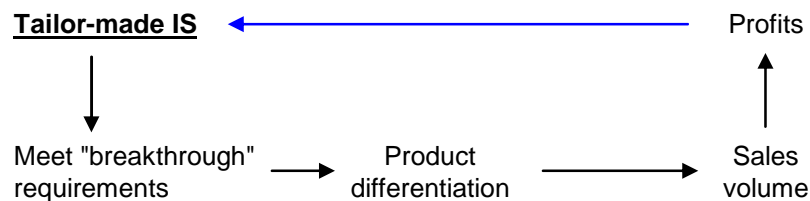
Tailor-made IS allows Atrápalo.com to better meet “breakthrough” requirements compared to the rivals that use standard IS packages and, hence, offer in the portal standard leisure services in differentiating ways and create differentiating purchase experiences; it results in more sales:



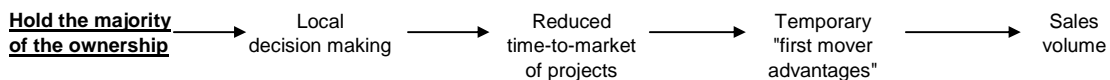
Profits are due primarily to a large sales volume and Atrápalo.com uses profits to further develop a tailor-made IS:



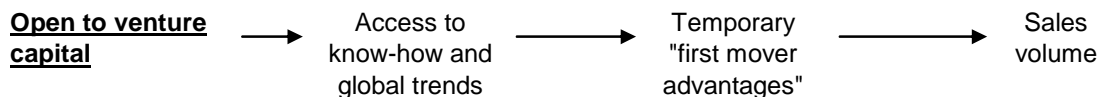
We can obtain a fourth virtuous cycle by combining the last figures. Tailor-made IS allows Atrápalo.com to differentiate and sale more. More sales result in more profits which are used to further develop a tailor-made IS to differentiate undifferentiated offerings and sale more:



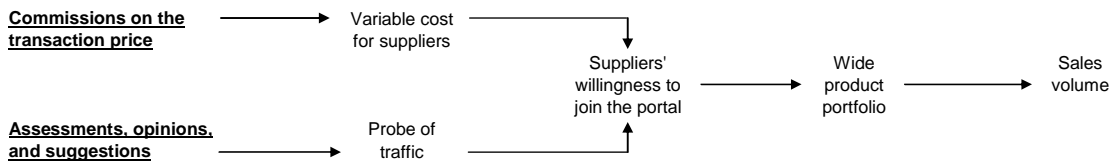
Holding the majority of the ownership of Atrápalo.com allows the founders and managers to enjoy a sort of temporary “first mover advantages” that results –almost temporarily- in more sales due to the fact that decision making is local and this reduces the time-to-market of projects:



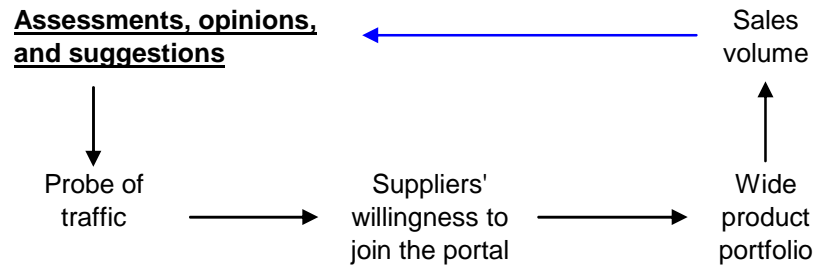
Holding the majority of the ownership is not incompatible with being open to venture capital which, in the case of Atrápalo.com, allows the founders and managers have access to specific know-how and Internet global trends and enjoy a sort of “first mover advantages” when they launch a novel concept:



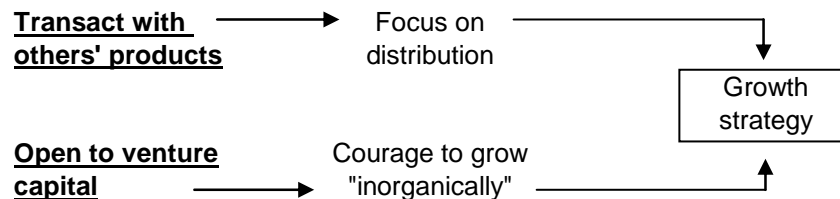
Another explanation for the large sales volume of Atrápalo.com is the wide product portfolio which is the result of having attracted many suppliers. The way to generate revenues to Atrápalo.com –a variable cost for suppliers- and the opinions of past users – which prove the high traffic in the portal- explain the large supplier base of Atrápalo.com:



In fact, if the take into consideration that more sales result in more opinions, we can derive a fifth virtuous cycle from the last figure:



Finally, Atrápalo.com has a growth strategy which is facilitated by the choices of transacting with others' products –and, hence focusing on distribution and renouncing to production of leisure services- and of being open to venture capital and have the courage to grow through M&A:



7.2.6. Atrápalo.com approach to innovation

The business innovation

The founders recognize that they have innovated since, in Sala's words, "we have not replicated a traditional travel agency into the Internet. That is what other companies are doing. The innovation resides on the way we approached the leisure industry. We acknowledged the fact that from Tuesday to Thursday theatres were empty and this notion has been transversal in the sense that it was extended to flights, travels, and hotels. We always talk about unsold inventories."

In Giral's words, "in our industry there are two types of innovation: the innovation that the online agencies are doing in regards to the traditional business and the innovation that each online agency is doing in regards to the other online agencies." As he explained, any innovation is followed by copy:

There is a continuous race of innovation and copy. Our businesses are totally visible and it is easy to copy each other. Therefore any innovation is a differentiator just for a few months. We are continuously innovating to try to be one step ahead of the competition, but being aware that in less than eighteen months we will be copied. The time depends on the resources of the

competitors and their workload in terms of projects in which they are involved. We are innovators and copiers at same time, because we may innovate in Spain but we are copying the best from the American websites. The winner of this race is not necessarily the player which has more resources. Choosing the right project to develop and having agile and quick programmers are the keys, and sometimes this flexibility depends on where the decisions are made. Atrápalo.com makes the decisions instantly while other competitors depend heavily on their central headquarters for which they are only a one or two percent of the global company. The Spanish branches of these global competitors can not do anything by their own and since they do not have their own IS development they must convince the central IS department to do small changes to accommodate features specific to the Spanish market.

It seems that selling unsold tickets was a novel idea not only in Spain but also worldwide. Today there is nobody doing it as massively as Atrápalo.com. In any case the founders remarked that it was not a copied idea.

The idea was reinforced as a viable one during the initial dealings with theatres. They proposed them to offer the unsold seats for a commission, which was a variable cost for the supplier who also kept the freedom to set the discount on the full price. *“They had nothing to lose.”* And the user pays the ticket or the restaurant bill to the supplier, not to Atrápalo.com; the portal only does the reservation.

Commercially developing the idea of selling unsold seats was a difficult task, as Giral commented:

Explaining it to the theatres managers was like preaching in the desert. We had to argument that discounts for the peak days would attract people, that artists would feel better if they had more audience, and that keeping the theatre full during the first week of the play to spread word-of-mouth recognition is a critical success factor. In restaurants we offered the possibility to organize two or more shifts by promoting with discounts reservation for different time zones or attracting people to peak days.

It was difficult to convince them because a previous successful experience did not exist. We had to explain how prices of hotels and flights vary in regards to the demand and that everyone in a flight travels at a different price. We were trying to apply the same to theatres and restaurants.

The initial success and word-of-mouth within the industry helped them to capture suppliers quickly. The initial success was due to the fact that the supplier controls everything: the price, the discount, the number of tickets for sale in the portal, the days, and the cash, because Atrápalo.com is not a ticketing portal; only reserves the ticket or the table and the client has to pay directly to the theatre or the restaurant. Another difference with the ticketing portals is that they impose to the theatres a kind of exclusivity while there is no such relationship between Atrápalo.com and their theatres. The initial success was also due to an obvious dysfunction: demand does not match with supply, and theatres and restaurants are empty during the week because they are dimensioned for weekends.

They have been unable to extend the model to cinemas because the industry performs in a different way. The entire business is controlled by the producer and not by the exhibitor. The producer sets fixed and immovable ticket prices, no matter the movie and the day and hour of exhibition. While exhibition in cinemas is exhibitors' core business, it is just one of the production phases for producers, with other phases being the edition of a DVD, a book, a game, and the rental of movies.

Assessments, opinions, and suggestions by users

Another novel idea was inviting the users to assess their experience and insert comments. Although the founders knew about a website compiling opinions from hotel users but not booking anything, it was a novelty to link those opinions to the services offered in the portal as a guide for coming users in their selection process. The idea came from the practise to send emails to users after the service to acknowledge their satisfaction degree. In view of the richness of the responses, a natural extension of the practise was to publish them in the website, together with the official description provided by the supplier. Atrápalo.com started inserting comments about theatre plays following to suggestions by friends of the founders who in addition to the price reduction wanted not to lose two hours in a boring show. And since Atrápalo.com did not know whether a particular show was good or not, the best option was inserting opinions from previous users. Later this initiative was extended to all product lines except flights and car rental. That is a substitute for having a sales force going to the theatres and the restaurants and writing criticisms. *"We do not have data, but we are sure that the clients read them before choosing any service."*

One of the interviewees did not remember how they had the idea of including comments. He only remembered that it was at the very beginning, and maybe visiting an American website.

The "online choice" and the way of making money

Particularly interesting is how they approached two of the main initial strategic choices, the "online choice" and the shift from fees to display advertisement to commissions for the transactions performed.

Atrápalo.com made the "online choice" as a result of the lack of resources of the company at the beginning, as Fodor said:

We never considered seriously creating a call centre because it did not make sense to hire people without knowing how much money this business was going to generate. A part from that, we did not see the advantages of a call centre compared with the Internet for noncomplex transactions. Maybe for high-price products difficult to be sold online... Not to open physical offices or points of sale with a terminal and a person assisting in more expensive and complex transactions was also an explicit choice. Other competitors have done it.

In regards to the way of making money, Fodor remembered:

When we wrote the original business plan in 2000 everybody thought that the portals were going to charge a lot for advertisement. We thought that the suppliers were going to pay a lot for getting their offer remarked in our website. We relied on a stream of revenues that did not materialize since no supplier saw it clearly; they neither knew the media nor its effectiveness in terms of notoriety. We could not sell any banner. This part of the business plan fell off very soon. In contrast, suppliers were more open to formulas based on variable costs. If you sell, you will get your commission. We changed the way of making money before launching the website and during the first months of reflection about the business idea. We did not change the business idea, leisure at the best price, sale of unsold capacity through the Internet. We just changed the way of getting the cash.

Now with plenty of suppliers and traffic in the website maybe we could charge for publicity. In fact, now we do it occasionally without any formal strategy when for instance a hotel asks us for more visibility.

The original business plan

The first conversations about the business were held by Nacho Sala and Manuel Roca. Sala was working for an Internet company and was developing a project to promote the sale of unsold seats in cinemas. They did a list of potential projects for a new online business, and selling unsold seats was one of them. Later, Nacho Giral and Marek Fodor joined the group and selling travels and hotels was added to the list. They were working for Internet companies or in Internet projects of traditional firms, and they decided to give up their current jobs to develop Atrápalo.com.

They spent six months doing research, refining the business model and working on a business plan *“about tickets for theatres, tables for restaurants, hotels, travels, et cetera, all integrated in a portal, with a huge marketing budget and lots of profits.”* They had the opportunity to review business plans from other online businesses. They changed the way of collecting cash from fees for advertising to commissions for transactions, and they added new services. In fact, the business described in the plan is completely different from Atrápalo.com as of today. That is why they never discuss about whether or not they have accomplished the original business plan.

When they wrote the original business plan, the industry trend was showing the suppliers' offerings in the portal for free. Nobody charged the suppliers in an attempt to get a critical mass of users, block the market, and start charging. They thought they were going to display for free in Atrápalo.com the unsold tickets and tables without even charging a commission to theatres and restaurants. *“We followed similar online experiences, in particular a portal to join people seeking a job and companies offering positions. But that is another business model. They are not a transactional portal. We found out very soon that we were not going to earn money this way and we changed the business model towards charging a commission on the transactions.”*

Comparing the original business plan with reality, they admit that they thought that theatres and restaurants were going to generate much more sales volume than they have generated in reality. They did not properly anticipate the weights of each product line

within the entire business. *“If somebody had told us that ninety percent of the sales volume would be holiday leisure at the end, none of us would have believed it.”*

In regards to the “online choice,” Giral said:

We decided to be only online for two reasons: the need to focus ourselves in something and the founders’ vocation which is Internet businesses. What we like is Internet businesses. We founded Atrápalo.com without knowing what a travel agency is, and without the proper license. We do not have vocation of travel agency. Opening street points of sale is not part of our vocation, although we may do it in the future if it is a requisite for the business viability. But it is far beyond what we know to do.

We also could compete with the large offline travel agencies opening a call centre, but we have preferred to remain as a pure Internet business.

Planning activities

Every year they develop a strategic plan showing the expected sales volumes and growths by product lines. But most of the years those plans are not formal and just indicate the parts of the business to be developed and emphasized during the planned year. Despite the plans are not formal, *“we know more or less the priorities and needs. But it would be interesting to have them formalised. We would need a global strategy for the entire business as well as product strategies.”* They also do regular sessions of strategic thinking with academics from a business school.

They have had sales goals for every year and they have been achieving them *“as a result of the market growth rather than as a result of a detailed plan.”* They have been setting those sales goals on the basis of the forecasted market growth, planning a higher growth than the market because *“we are better than our competitors and we want to increase our market share.”* They recognized that the calculations had been wrong if the market growth forecast had been wrong. They use forecasts made by consulting firms about the growth of Internet users and shoppers. And they always set growth goals higher than the market in an attempt to gain market share, a notion remarked by all the interviewees in independent conversations. *“The usual reflection is: how much are we able to grow in excess of the market growth, how much market share are we able to gain? We set percents and do our best to reach them. We have been doubling every year, but this will constitute a problem because we are accustomed to doubling and this year we will not double. It is not the same doubling when you sell ten than when you sell a hundred.”*

Doubling have been the result of the shift from traditional travel agencies to online travel agencies and also the result of gains in market share within the online industry. A substantial gain in market share was the implementation of a powerful search tool for flights which was a weakness in comparison with Atrápalo.com competitors. Doubling will be more difficult in the future because the extraordinary Spanish market growth in travels –due to the increase in the standard of living and the increasing conscience that travelling is a right- the will be smoothened.

The global sales forecast is split into product lines, and for each product line a list of actions to meet the sales forecast is done (i.e. to meet the growth in hotels, more hotels have to be contacted and integrated in the reservation central).

In regards to planning, they think that it is possible to forecast demand temporality and plan the needs of resources as a function of this demand.

About planning, Fodor commented:

Although I am personally impulsive and I prefer trial-and-error, doing a business plan before creating a new business and planning every year is useful as a reflection exercise to put ideas in order, think on the long term, and set priorities. You may change them later, but you have a framework, a reference point.

Strategy and planning obliges oneself to answer questions such as: where the growth will come from, what factors do we control and what are out of our control, which business line should we develop, where will the most interesting business reside...

The launch of the business

“Although the Internet bubble had exploded at that time, Internet was already unstoppable”, and they showed the business plan to several venture capital firms. “They liked the founders team, four people who had given up their current jobs, our motivation and our conviction,” but no money was raised despite the “credible move” of being given up the jobs. Excuses ranged from “there are more powerful players” to “it is no time to invest in online travel agencies,” including “it is new and there is a lot of risk.”

Giral commented:

I understand why nobody invested in our project... Four guys want to create a travel agency with experience neither in tourism nor in business creation. The banks and venture capitalists wanted to know who was hidden behind us. Maybe is there a large traditional travel agency? That was always the key question.

They raised more than three hundred thousand euros in two rounds from family and friends, included a venture capital firm director who invested personally. The raised amount was much below the expected one. This amount has been repaid, multiplied times tree, during the seven years since the foundation. They did not spend the entire amount because they reached the break-even-point eighteen months after the launch of the website and they started with profits very soon. But before achieving the break-even-point, sales and cash described two different paths, with sales increasing impressively and cash decreasing dramatically. When they anticipated that the two lines were going to cross each other with the result of a cash shortage, they asked for more money to family and friends, and a second funding round was completed just before the first profits and *“the two lines did not cross each other. In fact, we did not finally use the funds from the second round.”*

They entered the business when the Internet was growing in Spain. If they had entered the business before they would have raised more money. *“But we had not done so well with more money. We had lost more money because we had followed the .com euphoria of that moment. The industry was immature at that time. A launch with a lack of resources and a poor advertising made us to reflect about any expenditure several times before doing it and drove us to better decisions.”*

They commented that a competitor burnt thirty million euros, eighty times the amount raised by Atrápalo.com. *“Lack of resources has been one of the key success factors of our company.”*

Copy or imitation

They are continuously monitoring what other competitors are doing (i.e. a novel search tool). Launch a novelty to the market and copy or imitation by the other players is a commonality in this industry, as said before. Initially all the online travel agencies just offered flights from traditional companies. Atrápalo.com was second to offer flights from both traditional and low cost companies. The practise was initially started by another player which took the information from the low cost corporate websites, and Atrápalo.com matched it. Later, it was Atrápalo.com the first in the market to combine both types of flights in a single trip, and the portal which first adopted the low cost flights also matched the practise, being the second. The other portals matched the practise much later because they had to learn how to do it, and this time period allowed the two companies to capture clients and market share. Novelties take time to be copied and imitated but all the players adopt them finally because it is possible.

Nobody has copied the Atrápalo.com urban leisure business because it is small and unattractive in terms of sales and margin for the large competitors compared to holiday leisure, although for Atrápalo.com *“it is a strong source of differentiation from other online travel agencies.”* They try to supply a large part of the demand to prevent the entry of newcomers.

Product innovation

Product innovation use to come from suppliers rather than from users. They are not proactive asking the users about the kind of product they would like to find at the Atrápalo.com website. They did a survey twice and they recognize that they took some interesting ideas but compile a lot of commercially unviable proposals from those surveys. They rely mainly on the products offered by suppliers, ideas taken from industry magazines, seminars, and trade fairs, and their seven-year experience about what runs and what does not run. They are also aware of the services demanded by the users through their searches in the portal, and if those services are not offered in Atrápalo.com they try to find them in the market to fill the gap. Another way to increase the products offered is replicating a success. For instance, if a musical show becomes a success in terms of visits and ticket reservations, they try to offer all musical shows in Barcelona and Madrid. If the users demand a spa, they try to offer spas in all cities they can. There are product managers in charge of compiling information about new offerings and including them in the portfolio product. But *“they do not follow a systematic procedure.”*

They believe that they must be aware of the changing habits of consumers. At the beginning holiday packs arranged by tour operators were the preferred option. Today the user prefers to compound a pack from a flight and a hotel searching by himself. Forced by this demand, the online travel agencies have innovated with dynamic packs, a system that searches separately for flights and hotels until there is a match.

They also believe that any innovation promoted by clients must be taken with a dose of scepticism. *“From our experience, ideas taken from a survey to customers must be filtered because the client demands offerings –extreme sports- that later, when put in our portal, are complete failures. On the other hand, the clients use to propose offerings oriented to a limited number of users, and Internet is still a channel for mass products. Niche products will be adopted in the online channel when the growth halts. When you are growing faster you rely mainly on mass products.”*

The way to innovate

In regards to the way Atrápalo.com innovates, Sala said:

We are more of trial-and-error. And we do not measure the effects of changes, which is a mistake. Instead of measuring before, making the changes, and measuring after the change is carried out in order to assess that the change improves the performance, we just make the changes. That is the result of both our youth and the desire to grow. We are growing fast and without any systematic and planned approach. And it is also the result of being in a fast changing industry. We can not plan the next two years. Nobody knows what will happen in two years. It does not make sense to plan in the traditional way. It is better to quickly adapt to fast changes, decide using the common sense, and even do errors. That has become common practise in our industry. We do not have statistical data, but from ten decisions, seven are successes and three failures.

“La Lanzadera” is an example of the way Atrápalo.com innovates. It is the commercial name of a flight search tool that displays in a map all the possible flight destinations and their prices for a given period of time. Destinations are classified by price ranges. They took advantage of all the information stored in the system from user searches of flights. They entered a partnership with Google to use their maps. Giral had this idea when he reflected intensely on potential ways to differentiate Atrápalo.com in flights and at same time on potential ways to exploit the database from past searches. He took also into consideration that some customers want to get a quick getaway to anywhere but they do not know where or for them the destination does not matter. They could launch this initiative because they had decided to store the price information from all the flight searches of Atrápalo.com users without knowing with what purpose. “La Lanzadera” not only differentiates temporarily Atrápalo.com from other online travel agencies but also from traditional travel agencies which have to do manually this particular research of places to flight to in a period time for a limited budget.

Launching “La Lanzadera” costed Atrápalo.com only the IS development, and *“it will be copied sooner or later, or it will never be copied, depending on whether the competitors perceive it as interesting, on their priorities, on their current projects, on the availability of their staff to do it.”*

Table 7.2. Atrápalo.com choices

CHOICE	TYPE	EXPLANATION
Transactional portal	Policies	They just include in the website the information needed to order the service
Transact with others' products	Policies	They are focused on distribution; they do not produce leisure services
Transact with exceeding products	Policies	They just offer leisure services unsold through other market channels
Commission on the transaction price	Policies	They charge the supplier a commission on the discounted price
Online marketing campaigns	Policies	Their marketing campaigns are online; conventional advertising is limited
Assessments, opinions, and suggestions	Policies	They attach to the offerings past users assessments, opinions, and suggestions
Price with discounts	Policies	For each offering they show the original and the reduced prices, and the discount, which is decided by the supplier
Target end users	Policies	They do not target corporate customers
A hundred percent online	Policies	Interaction and transactions are done through the portal. They do not have a call centre or physical offices
Back-office with service staff	Assets	For expensive and complex transactions there is a back-office with service staff to support the customers
In-house IS	Assets	Software is internally developed
Tailor-made IS	Assets	Instead of using a standard package
Open source technologies	Assets	Instead of using proprietary software
Only reserve (theatres, restaurants, and hotels)	Policies	Some leisure services are paid <i>in situ</i>
Deal with few tour-operators	Policies	They have concentrated in few tour-operators to increase their bargaining power
No charge to customer (urban leisure business model)	Policies	They do not charge the customer with a fee for each transaction
Open to venture capital	Governance	An American venture capital firm holds a 30% of the equity
Hold the majority of the ownership	Governance	Since the founders hold the majority of the equity decision-making is local

Annex 7.2. Questionnaire prepared to interview Atrápalo.com managers

About the business model

1. Atrápalo.com business model consists of... (describe the business model in brief)
2. In what business Atrápalo.com is? In urban leisure and holiday leisure? In creation of leisure new concepts? In solving leisure time? In the information industry or in the Internet search industry?
3. Where is really the “secret” of Atrápalo.com?
4. What is really new and different in Atrápalo.com with regards to the competition? The inclusion of opinions and suggestions? The lemma “offers for today which will disappear immediately”? The reservation of tickets for theatres and tables for restaurants? Urban leisure as a means to attract users to holiday leisure? The generalization of the tools to adjust prices to the demand?
5. How Atrápalo.com was born?
6. In what dimensions of the business Atrápalo.com has been the first in Spain or in the world? Reservation of tickets for theatres and tables for restaurants? Inclusion of opinions and suggestions?
7. What are the strategic decisions that have been shaping the business model throughout its live? Only Internet? There are people behind the portal? In-home IS?
8. What are the “what to do” and the “what not to do”?
9. Do you think that Atrápalo.com differentiates itself from the competitors as far as travels, hotels, and flights are concerned? Do not you think that Atrápalo.com is offering the same than the other online travel agencies?
10. Are there really cross-selling effects among the five product lines (theatres, restaurants, flights, hotels, and travels)? Having five different product lines is really an advantage or a source of distraction?
11. Is it possible to copy, imitate, or replicate Atrápalo.com business model?
12. What are Atrápalo.com strengths and weaknesses now? And when the company was founded?

About the competition

13. Who are Atrápalo.com competitors?
14. What is the nature of the competition?
15. What are the features that distinguish Atrápalo.com from its competitors?
16. What are the features that distinguish Atrápalo.com products from its competitors’?
17. Is there any competitor with the same or similar business model?
18. From the main competitors, what is different? The product or the business model?
19. Does Atrápalo.com have a different competitor in each of its product lines?
20. Is Atrápalo.com performance higher than its competitors’?
21. Manuel Roca said in a press interview: “*it is a market without competition for the other’s market share.*” Is Atrápalo.com growth due to the increase of the market or to the increase of its market share?

22. Don't you think that online travel agencies are growing at the expense of offline travel agencies with clients migrating from the latter to the former? Is really the global market growing?

About the innovation

23. How did you acknowledge that young people were boring while theatres were empty during the week?
24. Why did you think that Atrápalo.com was not going to die as many other .com?
25. Who are Atrápalo.com customers?
26. Is Atrápalo.com targeting a specific market segment?
27. What are Atrápalo.com clients looking for? Convenience? The best price? Why didn't they buy elsewhere?
28. Where did Atrápalo.com clients buy when Atrápalo.com did not exist? Offline travel agencies? Some activities did not exist?
29. Why did you give up from your previous jobs before launching Atrápalo.com?
30. Did Atrápalo.com enter the market on time? Should Atrápalo.com have entered before or later?
31. What did you do with the three hundred thousand euros raised?
32. Is innovation a random process of trial-and-error or can it be systematized?
33. Do you believe in good luck?
34. Did you conduct market research before launching Atrápalo.com? Did you do business plans?
35. What did you show to potential investors?
36. Why none of the venture capital firms to whom you explained the business invested in Atrápalo.com?
37. How did you convince your family and friends to place a bet on Atrápalo.com?
38. How can you innovate in travels, hotels, and flights in which everybody offers (apparently) the same?

About the formal organization

39. Do you have (the four founders) the same percent in the equity?
40. Is there a hierarchy within the four founders?
41. How are you organized?
42. Is there a formal organization chart?
43. Is there somebody formally focused on product or process or business innovation?

About the future

44. How do you envision the future?
45. Does Atrápalo.com have any limits?
46. Is it possible to continue the current path of growth with the current business model?
47. How are you planning to grow? Acquisitions? Geographical expansion?
48. What will happen what the offline travel agencies launch their online branches?

About the innovation process

49. Where innovative ideas come from? From the top or from the bottom? From outside or from inside? From clients or from suppliers?

7.3. NATURHOUSE: RE-TEACHING IN HEALTHY EATING

7.3.1. Company description

Naturhouse is a chain of shops leader in the Spanish dietetics and nutrition market that provide advice and sell dietetic products to help reduce the excess weight. It is part of Grupo Kiluva, founded in 1989 by Félix Revuelta. The chain opened its first shop in 1992. In 2007 the company sold more that 240 million € in more than 1.600 shops, mainly in Spain, but also in twenty other countries in Europe and America.

Grupo Kiluva has a stake in several companies that manufacture dietetic products. 90% of the shops of the chain are franchisees and the remaining 10% are owned shops directly managed. It also supplies dietetic products to independent retailers, business to which the company was devoted exclusively since the foundation of the group in 1989 and until the opening of the first shop in 1992.

Naturhouse business model is unique in Spain and in the world.

More than two million people have gone to Naturhouse since the creation of the chain.

7.3.2. Selection criterion

Naturhouse was selected for several reasons: (i) their business model is novel and unique; (ii) their sales have grown steadily since their foundation; (iii) they compete in a market with more players with different business models.

7.3.3. Research design

We prepared a questionnaire (see annex 7.3. **Questionnaire prepared to interview Naturhouse managers**) based on the information gathered from the following sources:

- Corporate website (www.naturhouse.com)
- Case “Naturhouse”, written by S. Ramakrishna Velamuri.

We held semi-structured interviews with the following managers:

Name	Position	Date	Duration
Félix Revuelta	President and founder	17-10-2007	0,52'
Juanjo Marín	Managing Director	04-07-2008	0,58'
Mateu Abelló	Kiluva Commercial Director (sales to independent retailers) and co-founder	04-07-2008	1,07'
José Luis Aznar	Naturhouse Commercial Director	04-07-2008	1,00'

Natividad Sarrión	Technical Director	04-07-2008	1,24'
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7.3.4. Naturhouse business model

Re-teaching in healthy eating

In contrast to the shops that sell dietetic products and to the traditional herbalists, Naturhouse has specialized in weight loss and control. Qualified dieticians help the clients to reduce their excess weight giving them advice about food habits and prescribing them dietetic complements. Under the lemma “we are what we eat,” Naturhouse is basically a business devoted to re-teaching in healthy eating. Their goal is making their clients to follow a healthy and balanced diet and to adequately combine foods in such a way they gradually lose weight, without great efforts.

The clients –80% are women- that go to a Naturhouse shop are healthy people with a problem of excess weight. During a first thirty-minute visit conducted by a qualified professional (dietician, biologist, or pharmacist) they are proposed a diet and prescribed dietetic complements. After this first visit more brief weekly visits follow until the client reaches the desired weight. All this advice is for free. Visits require appointments made in advance.

The dietician recommends a diet from a set of more than 150 pre-designed diets. The diets are personalized to the extent that they are recommended by the dietician after having evaluated the nutritive status of the client and his or her eating and living habits.

It is not the case to follow restrictive diets, “to go hungry,” but to learn how to eat well. “*Re-teaching in healthy eating consists of educating to eat in order not to put on weight again.*”

As one of the managers commented, one of the beliefs of the satisfied clients is: “I was eating one way, now I am eating another way, and despite the change I do not go hungry.”

Sarrión said:

We have worked in re-teaching in healthy eating and in weight loss as a business and also as an aid to the Spanish population. 15% of it suffers not from excess weight but from obesity. We collaborate with the medical class. We do not compete with them. The medical system would not be able to treat Naturhouse customer base. 50.000 people visit Naturhouse shops every day. If they went to the Social Security system, they would block it. Naturhouse represents a great saving for the Social Security system.

In addition, there are some pathologies associated to excess weight or obesity. As the client lose weight, his or her constants normalize and he or she can stop using drugs.

Sarrión continued:

The most tangible part of the process is the loss of weight, but what is really important is the shift from pizza to greens. There is a motivational issue and a commitment between the dietician and the client. Just giving a diet and an appointment for a visit in three months does not run. People do not follow a diet by themselves. They do that forced by the commitment with the dietician and thanks also to the emotional help which acts as a psychological support: "Come on! We can!" And the client remembers that she wears a skirt she could not wear three years ago.

Motivation and commitment has the origin on a group therapy called *Peso Perfecto* where women met, were weighted, and congratulated and applauded if they lost weight. They were given a speech and also some dietetic complements to help following a diet. As it will be explained later, there were –and still there are- different groups with different names but using similar philosophies.

In short, the business consists of *"replacing bad habits for good ones, with the help of dietetic complements. The potential is great because there is plenty of people eating very bad, drinking very bad, and sitting all the day."*

Naturhouse's secret

Several key factors explain the success of Naturhouse. According to Marín:

There are two secrets: location and staff. A good location with a poor staff will not run. A bad location with a powerful staff will run, but less than a good location with a powerful staff. A poor staff can be replaced easily. Changing a bad location is costly in terms of closing the current premises and opening a new shop in an alternative location. In choosing a location or a licensee there is a "model" but there is also the intuition developed through experience. We have something like an algorithm to assess a potential franchisee –professional career, commercial skills, training, et cetera-, but at the end it is intuition what tells you whether or not the candidate will perform as expected. And you fail many times and then what really matters is the successes/failures ratio.

There is a controversy about which of the two success factors –location or staff- is the most critical one. The company recognizes that the choice of franchisee is more critical than the choice of store location, since in the last episodes of shop closing down the mistakes were reported to be due almost exclusively to the choice of franchisee.

Another factor is the free advice service by a qualified professional that wears a white coat, a service which is exclusive and personalized for each client. Revuelta remarked:

The advice is completely free. Nobody is compelled to buy anything. And that gives credibility to us. In fact, the clients loss weight because they change their eating habits, follow a diet, and use some dietetic complements that directly attack and counteract the causes of their excess weight. Some people can stop taking those complements once they have reduced their excess weight, but other will still have to continue using them while the causes of the excess weight persist.

Naturhouse's secret is clients' satisfaction. Lots of people start a diet and do not end it. The problem with weight control diets is the lack of continuity. The same happens with foreign languages. Lots of people matriculate and in a few weeks stop going to class. A key idea at Naturhouse is to fight the abandonment. The major part of the people that go to a Naturhouse shop and start a diet achieve their weight loss goal and communicate their success through word-of-mouth, which is our best advertising. That is due to a great extent to the control and follow-up by the dietician. At Naturhouse the clients do not pay registration fees and what we want is our clients to follow the programme, end it and bring more people to the shops.

The idea that a satisfied client who has lost his or her excess weight attracts other potential clients is the core of Naturhouse's communication. It is deployed in the website, in the shop displays, and in the corporate newsletter edited by the company, *Peso Perfecto*.

Communication is based on testimony of real clients, identified with their name, age, height, and town of residence. Current pictures are shown together with old pictures from before starting the diet, as well as a mention of the reduced kilos, the reduced clothing sizes, and the time incurred. Interviews with both the client and the dietician are the bulk of the corporate newsletter.

However, they believe that *“positive word-of-mouth attracts clients but negative word-of-mouth discourages clients. Re-conquer is much more difficult than conquer.”*

Another key success factor is the emotional link between the dietician and the client. *“Sometimes our shops become psychologist's offices.”*

In regards to the secret, Abelló said:

The principle is simple. It is like a tank or like a bank account: if outputs exceed inputs, the balance diminishes.

The secret of Naturhouse relies on doing what the others are not doing with a method of minimum effort-maximum performance. If you want to do what the others are doing, they are already doing it, and your contribution is nothing new. Nobody else is doing in the market the same than Naturhouse because working with a closed method is difficult. With such a method people does not have freedom to do their way and everybody is obliged to follow the systematic we know that runs.

We demonstrated to ourselves and later to the market –franchisees, clients, et cetera- that the systematic runs. We knew in advance that it runs because it is based on methods that have always existed. Before Naturehouse there were products and methods to lose weight; there were thousands of them; and they still exist out of Naturhouse. But they existed and still exist in an atomized, fragmented way. And when a method is used in a fragmented way it does not globally run. An endocrinologist uses a method. Another endocrinologist uses the same method, but with little variations. These are the same method, but with differences. Everyone wants to differentiate. The

novelty is to apply one of the existing methods to lose weight at a large scale without any variation.

Our method consists of: few products, guaranteed margin for the franchisee, turnover, efficacy... But the most important key success factor is that nobody can depart from the rules. If someone departs from the rules, the agreement is broken. Nobody can invent a part from us, and we are not inventing anything. We have just compiled what existed in the market and have applied it in the form of a closed method; we have put it in a shop.

Finally, determination has been the engine of the project development. We knew that the method runs, and if it runs it can not fail.

Before Naturhouse, dietetic shops provided with advice but it was not for free. The client paid for the advice and for the products. At Naturhouse the advice is for free and it is included in the price of the products, “*despite the clients are not compelled to buy any product.*” Dietetic shops provided with advice but they did not have any full time qualified professional. In each of the Naturhouse’s shops there is at least one qualified professional. Abelló remarked:

That is a main difference. We have created a chain of 1.600 shops with at least one qualified professional in each; therefore, we have a network of more than 1.600 qualified professionals. The industry association did not understand the schema of a shop with a dietician and a sales assistant. “How are they going to make their living?” The industry association has not evolved and their clients are not able to provide advice in a systematic way.

The method

Naturhouse uses a tailor-made piece of software to compile data from their clients and recommend the diet to follow and the dietetic complements to prescribe. The data are entered the software and a decision tree guides the dietician to the best diet and dietetic complements. The data includes anthropometric data –weight, height- and history data – family antecedents, past and present pathologies.

They can not order analysis because they are not doctors, but they ask the clients to bring the last analysis with them. They also ask the clients to explain what they have eaten in the last twenty-four hours. They consider to what extent the eating habits of the clients are unbalanced, and then the dietician chooses one of the 150 diets available in the software using the decision tree.

The diets are created by dieticians but are assessed and signed by an endocrinologist. Diets unavailable in the software can not be recommended. Sarrión remarked:

“Free drawing” is not allowed. The human being is human. Imagine two neighbouring shops. If one is recommending a 1.500 calories diet, the other may recommend a 1.400 calories diet... It is human. If they are part of Naturhouse they can not do it. Any brilliant idea about a new diet is welcome in the headquarters. We then supervise it, assess it, submit it to the

endocrinologist, and enter it the software. It is a way to enrich our set of diets, and there are geographical areas very active in sending new diets in accordance with the gastronomic tastes of the region.

Naturhouse's clients are healthy people with excess weight. Obesity and other illnesses are not treated. They are derived to their doctor or to an endocrinologist. Or they are given a diet to be shown to their endocrinologist. In this case they are only a complement. Therefore, the decision tree tells the dietician which clients to accept and which clients to derive.

They also provide with some advice about living quality (walk, drink water, way of cooking, et cetera).

Everything is stated in written protocols, which can not be skipped by the franchisees.

Dietetic complements are part of the method and are developed as aids when the client can not drink water or suffers from eating anxiety. For instance, some of them help draining. The last element of the method is the control exercised by the dietician which remembers the client that he or she is following a diet.

The thousands of satisfied clients and word-of-mouth reinforce the method itself. *"It is the best probe of the method's success. The population of satisfied clients supports the method. And as the population increases the probe is more consistent. By contrast, the lonely endocrinologist may face a conflict with their unsuccessful patients, since he can not provide the successful experiences of thousands of patients."*

The shops

Naturhouse shops have a common and distinctive image compared to the conventional dietetic shops. All of them share the same external and internal aesthetics, with the same furniture, and advertising and promotional material. In regards to the conventional shops, they differentiate in that they are divided in two areas, one to exhibit products and sell them and the other used as a doctor's office. While the exhibition and sales area is visible from outside the shop, the doctor's office guarantees privacy.

The shops are run by a dietician and a sales assistant, both wearing a white coat.

The shops' size may range between 50 and 100 square meters, including the doctor's office. They are located in middle-income urban zones. The premises may be owned by the franchisee or rented. The monthly rent is one of the main shop expenses, and it is critical for the shop viability not to pay more than 1.000 € per month.

Due to the fact that Naturhouse's shops are devoted basically to weight loss and control, the major part of the dietetic complements are developed to fight excess weight, in contrast to the conventional dietetic shops in which we may find products developed for all kind of problems. The products are exhibited in shelves. In a single shop there may be just 200 different products, 40 out of them accounting for the 80% of the sales. Naturhouse's shops use to keep in value just a fifth of the inventory of the independent retailers. Thanks to that the shops exhibit an internal image much more sober and elegant, with shelves with few products.

The shops may have 125 active clients and do 500 visits in a month, from 20 to 25 in a day.

The choice of the location is critical for the shops' success and survival. *"There is a formula, a system, but intuition also matters."* Aznar explained:

There were two free premises in the same street, one in front of the other. The delegate preferred one of the two but while he was detailing its advantages I was looking at the other which was in the sunny sidewalk, with more traffic and shops, with a large shop window, close to a supermarket... I said: "I want it." But the delegate said: "It is complex to get the one you prefer." I concluded: "That is your problem and your merit. Buck up! You or your franchisee will have to negotiate." He had been satisfied with the not so good one.

There are three types of zones: A, B, and C. The worst mistake is choosing a C location in an A zone. We are jeopardizing an A zone with a poor location. Maybe tomorrow someone else opens in the same zone but in a better location. We must open in the best location of each zone to prevent other's moves. Such insights are given by long-time experience. A new shop is never opened unless I give my blessing to the location.

The premises are rented by the franchisee but he or she must follow Naturhouse's fitting guidelines, based on their know-how about how a shop must look like. All the premises worldwide must have the same look. When a contract expires, the franchisee must refurbish the premises to fit with the current look.

The preferred locations are in middle-income areas in large cities, middle cities, and villages of 15.000 inhabitants. *"Villages are more risky. If I do not do it well, I will have to close down and leave the village. But if I do it well, I may become the boss, as the major, the doctor, the priest, and the judge are."*

Finding new locations is more complex as business develops. For instance in Barcelona, with more than seventy shops and a desired ratio of a shop for each 20.000 inhabitants, it is complex to find a new location. Few locations are free and any new shop may cannibalize the sales of the neighbouring shops. Aznar explained:

Sometimes a strategy to fill gaps is to tell the neighbouring franchisees: "I have a potential franchisee for this unattended area. I would prefer you rather than an unknown franchisee. It is better to compete with yourself than with another franchisee. If you filled the gap you would add instead of detract. Another franchisee will detract from your business. Think of that, but I can not wait more than fifteen days." The strategy, which is usually a bluff, always runs.

Not all the commercial traffic is desirable for Naturhouse. The commercial traffic of malls is an example. This consists of families going shopping during the weekends. *"That is learned through experience. Some things do not perform as expected. We may have a priori good locations that finally do not perform, and we do not understand why;*

and a priori bad locations that do perform very well, and we do not find out the reasons.”

They believe that the most desirable commercial traffic is the one consisting of neighbouring people –living or working in the zone- that walks again and again in front of the shop and finally goes into. *“Our business is not one of impulse, but requires notoriety –it must be identified by the potential clients- and a kind of commercial traffic: people working there and having time enough during midday, people living there, et cetera.”*

The products

The products sold in Naturhouse’s shops are exclusive and can only be bought in the shops and through dietician’s prescription.

The dietetic complements have been developed by the technical department of Naturhouse, which is also in charge of designing and updating the diets, training the franchisees and the shops staff, and keeping the relationships with the health administrations.

The origin of the products is natural. They remarked that the active principles are all taken from Nature. They are not placebos. Diet could be enough, but for some people only. Dietetic complements help the clients to reach the weight goals.

The products are manufactured in plants located in Spain, Poland, and Mexico. Ownership of Grupo Kiluva in the equity of those plants does not exceed 49%. As Revuelta stated:

Grupo Kiluva is not going to increase ownership above this percentage because I like to work with partners, allow them to make their living, but I do not want problems. I am their main client and they must take care of me, but they manage their plants. The owners of the plants must really feel the owners and be held accountable for everything in such a way I can forget the manufacture and can focus myself on other issues. A certain control must be exercised, but a limited one. They send me the figures for consolidation but as business units they do their way.

The plants just manufacture for Grupo Kiluva and nowadays they could not manufacture for third parties due to lack of capacity.

The shops order weekly and the orders are supplied in less than 48 hours.

As mentioned before, one of the key success factors is a portfolio of few products and high inventory turnover. *“In this field there are few products, since with few products all causes of excess weight can be attacked. And the development of new products that improve the existing in efficacy and cost is problematic. During the last years, the products shown to us by other suppliers were either more expensive or not so effective, a fact that in reality protects our business.”*

The dietetic complements are supplied in capsules and vials. The clients' average monthly expenditure in dietetic complements ranges from 50 € to 100 €.

The prices of Naturhouse products are between 5% and 10% higher than the competitors'. The franchisees retain a gross margin of 50%.

Naturhouse franchisees are allowed to sell Kiluva products, the products Grupo Kiluva sells to the independent retailers (open market). All the Naturhouse exclusive products are branded Housediet. Kiluva products are less differentiated in regards to competitors' and grant the retailers a lower margin. Kiluva product line is also used to test new products. If they become a success, their name and packaging are changed and become part of the Housediet portfolio.

The franchisees

One of the main choices of Naturhouse business model is the reliance on franchisees. Revuelta said:

I want the franchisees to make their living very well. This will drive more franchisees to Naturhouse. Or the old franchisees will open a second shop. I will never exploit them. At Naturhouse everybody has to make their living: the manufacturer, the franchisee, and the franchiser.

Naturhouse franchisees pay neither entry canon nor assistance fee. *“The key is renouncing to some minor details [extra charges for franchisees] in exchange of strengthening the essentials. That is focalization and doing things different [other franchises charge the franchisees for everything].”* The franchisees must rent the premises, arrange them according to the guidelines, buy merchandise, follow the protocols, and invest a 5% of the sales on local advertising. As far as the merchandise is concerned, *“we do not do ‘push,’ we do not sell to the shops, they buy to us. They can order weekly. We do not want them to hold large inventories. We want an annual turnover of 52 times. They sell in cash and pay in 30 days. That is a good business, and it explains the progression of openings.”*

In this regard, they believe that *“what really seduces potential franchisees is a business model properly tested and without direct competition, a reduced investment, and a great technical and managerial support by the franchiser. The franchise allows young professionals to setup a shop with an investment of no more than 40.000 €, get a small profit in one year time, and be their boss.”*

The first shops of the chain were owned by the group and directly managed to refine the model. Now, a 10% of Naturhouse shops are directly managed to *“gauche the mood of the market.”* They are also used to test new products and services and specially to train new franchisees and their employees. They perform not so well than the franchisee shops because leadership by an employee differs from leadership by someone who is protecting his or her investment and who will devote to it more time and effort if the shop does not perform as expected. These directly managed shops are not seen internally as selling centres but as training centres, a perception they want to change. *“Now delegates are being involved in the management of those shops and a system to reward both the staff and the delegate is being implemented.”*

There are franchisees of two different profiles: qualified professionals –dietitians, biologists, or pharmacists- and investors. Qualified professionals view Naturhouse as a form of self-employment. Investors, on the other hand, may have several shops in the same geographical area and may or may not be involved in the daily operations of the shop. Generally, franchisees owned by qualified professionals are the typology of highest performance.

Many of the franchisees have been recruited from other franchisees and from shops directly managed.

The franchisee has a paramount role within Naturhouse. Continuous training programmes are attended by the franchisees and their staff. Interviews with successful franchisees are also published in the corporate newsletter.

The choice of the franchisee is also Aznar's responsibility.

In regards to investors, *“they can be good entrepreneurs and do it well, but they may have other investments in other businesses and may pay no attention to the shops. And someone must be in the shop. Sometimes, the investor finds other investment opportunities, pays less attention to the shop and finally leaves it”*.

In regards to self-employers, *“the owner will work for the shop twenty-four hours per day, seven days per week. Opening on Saturday if the week has been weak in terms of cash is the kind of initiatives an employee does not have. The best profile is the self-employer. We have transferred some low-performing owned shops to employees who have become licensees with the result of a high increase in the performance in just a few months. The self-employer seeks actively all kind of initiatives to increase the revenues, as extending the opening time according to the demand.”*

They recognize that investors have contributed to the accelerated growth of Naturhouse due to their investment capacity. A single investor usually opens several shops. They also distinguish two different profiles of investor: the entrepreneur and the pure investor. The former goes to the shops regularly, takes care of their evolution, and reviews the business data. The latter has a portfolio of different businesses and invests some money in several shops because *“he has heard that it is a profitable business.”* He is not involved in the daily management of the business. *“We do not like this profile and we want to depart from him.”*

Marín said:

The self-employer is the profile we like very much, but not the only profile we like. They are always in the shop as dieticians or sales assistants, but they share a disadvantage: it is difficult to be a good dietician, be in touch with the clients, deploy commercial skills, and at the same time behave as a manager. They may not have entrepreneurial skills, they may not be organized, and they may not properly manage their staff. With more than one shop the problem becomes even greater. Sometimes we ask them to go out from the shops and become their manager; despite they may lose the kind of involvement given by the touch with the clients.

I would be conformable with a mix of 60% self-employers and 40% entrepreneurs. Entrepreneurs bring know-how and the kind of initiatives the self-employers do not have. Sometimes we must content them because they want to run faster than we can, but we appreciate the insights because they push us forward.

The franchisees follow a protocol for everything.

The search of franchisees and premises is one of the functions of the commercial department of Naturhouse. The shops are supervised by delegates, each in charge of up to 70 shops. In each visit the delegates follow a checklist with twenty issues –technical issues, image issues, and staff issues- and cells to mark –good/regular/bad). They must ask the franchisee about new clients, faulty clients –who do not follow the visits programme-, clients’ fidelity, et cetera. They give advice but also verbal or written reprimands. Delegates are not order-pickers. They are zone managers. “*They may recruit staff or manage the transfer or a shop...*”

The shops use to sell more than 200.000 € a year from the third year on and grant a net profit before taxes of 20% on sales. Some shops even sell 500.000 €.

The competition

Naturhouse faces two types of direct competition: the companies that manufacture dietetic products and sell them through different channels –independent retailers, supermarkets, hypermarkets, pharmacies, herbalists, et cetera- and the dietetic shops themselves. They also compete directly with retail chains that have appeared with a similar same format. However, they compete indirectly with all those formulas to lose weight, as the traditional medicine or the gyms.

Dietetic shops “sell a lot of different products, from esoteric to ‘bio’ products. They sell few numbers of everything. They sell products to attack everything. Naturhouse is a well-defined business. The client goes to a Naturhouse to lose weight.”

Before Naturhouse, people went to traditional dietetic shops, but also to endocrinologists, naturopaths, herbalists, et cetera.

On the other hand, some habits favour the business. As Revuelta said:

My success is due to McDonald’s. I am very much indebted with McDonald’s. When the restaurants are full, my business performs very well.

About the possibility of copying, “*it is not a matter of resources. Even in the case of unconstrained resources, if you do an exact copy of the original, you will get the original but nothing else. But you should contribute with anything else... In addition, in some countries we are everywhere. Therefore, it will be difficult for an eventual copier to find a good location. Our past growth also makes our future expansion more difficult as there are few free good locations.*”

Marín said:

In countries like Spain and Portugal, where we are everywhere and we are almost fully implanted, if we do things properly it is very difficult that someone could expulse us from the market. They can incommode us, but in the short run it is not feasible to lose our position. In countries where we are not present, someone else could appear. However, we have a model that runs and has some important peculiarities that must be learned. The products are developed by ourselves and manufactured for us. Someone else could appear with a similar formulation, but the entry barrier is not the product. Our model is like a mobile by Calder: things are supported by other things. Someone wanting to copy the model must know the system very well, the parts and the whole. If you miss a critical part you are lost. On the other hand we have resources, know-how, and a capacity to expand very fast. The copier should be someone running faster than us, and we would be so focused on other issues not to notice they are doing something similar. And a copy will be always a copy. Nothing is better than the original.

The future

All the managers agree that the model can be replicated on a global basis. It has global validity with local adaptations –i.e. diets adapted to each country eating habits.

One of the recurring issues at Naturhouse is whether there exist or not a theoretical limit to the number of shops in Spain. Some managers believe that this theoretical limit would be by 2.000 shops, one for each 20.000 inhabitants, and would be determined by the existence of low-income regions and regions with low penetration of dietetic products, by the high rents in the main capitals such as Madrid and Barcelona, and by the possibility of conflicts with the existing franchisees.

Naturhouse's future depends greatly on the international expansion, especially in America. The firm has plans to be in the USA, especially in Florida, and in Central America.

One of the problems Naturhouse has to deal with is the inactivity of those clients that have reached the desired weight. They continue being part of the customer base but they neither go to the shop nor buy their products. Despite there are products developed to be of recurring purchase –those that eliminate the calories accumulated during certain periods of the year when controlling the eating is much more difficult, as during Christmas time-, a lot of clients stop buying the dietetic complements once they have achieved their goal of weight loss.

About whether the clients remain active or not after they achieve the desired weight there is controversy. On one hand, a manager believes that *“clients remain hooked forever. People always goes to the same hairdresser, the one in which they are confident.”* On the other hand, another manager said that *“the human nature is weak and for Christmas our clients use to put on weight; just two or three kilos. And they come back. We do not want our clients to do the “yo-yo,” losing and recovering weight. It would be good for the business but it does not fit with out philosophy. The teaching is already done, and they keep it, but they do not feel the psychological pressure –‘I have an exam’- and they are not accompanied. Some people appreciate this mixture of control, authority, and commitment –‘I have appointment with the dietician; I must*

avoid a ticking off.’ The appointment is the motivation for the effort to be done, it provides discipline. Open education is not the same than going to class. It requires constancy. And some people lack such constancy.”

To recover inactive clients Naturhouse is doing several initiatives in the form of campaigns. They do the same than restaurants. They always offer the same menu but punctuated with other options in the form of “the week of...” just to introduce some dynamism in the business. That is in part a requirement by the same clients whose complaints (“you always have the same”) are translated by franchisees.

They also have a continuity programme for those clients who put on weight again from time to time. They are not told to come once a week but one a month. Although they have achieved their goal of weight loss, they need a follow-up.

Men account for no more than a 10% of Naturhouse clients. Therefore, a source of future growth is to increase the number of male clients through campaigns. In addition, men lose weight more easily due to metabolism and discipline. But men have a mental barrier which “*we are currently studying. We study male clients. What do they do? What do they think? What kind of insights can they give to us to attract men who do not come to our shops? We also study men who are not clients. How do they face the issue of losing weight? Why do not they come to a Naturhouse? These are ways to identify the barriers that prevent men from coming. We believe that the barrier is not in entering a Naturhouse. The barrier is in considering the need to lose weight. But it is changing. New generations of men start using cosmetics and start depilating if they practise sports. Years ago smoking or driving fast were socially accepted. Now are unaccepted. The same will happen with excess weight. Mike Jagger and Sting are the prototypes in the media. In addition, weight control is also a matter of health, well-being, and self-esteem.*”

Marín said:

The growth in Spain will end up with 2.000 or 2.200 shops. We will achieve this limit anytime, and we will have to offer something new and different. Now our franchisees are telling us: “please, give me something that runs as this.” And without compromising the current business, we will have to take advantage of our strength and offer other initiatives within our shops. Maybe we can offer new services. On one hand we are so much closed, so much focalized, and we refuse ‘experiments,’ but on the other new initiatives should be considered as we have the strength of 1.400 shops in Spain and we are in every corner.

“Experiments” may refer to extensions within the Naturhouse concept or new concepts to be implemented a part from Naturhouse.

Out of Naturhouse they have tested two new concepts that have failed, one related to wines and the other to perfumes. Revuelta said:

I will never franchise any new project which is not clear, does not perform well, or is still not profitable. I have a reputation, I have always done it this way, and it has always run. If it fails, I am the only injured.

They are now testing a chain of “anti-aging” shops. The project consists of taking advantage of their know-how in dietetics to focus on “eating to be younger” which is possible if the client eats properly. This market opportunity is based on some scientific reports and on a “trend” to eat food which has anti-oxidant and anti-inflammatory powers. This kind of food must also be accompanied with dietetic complements. The effects of both the food and the products can be perceived in the qualities of skin. The shops will look different from Naturhouse’s shops, and they have replaced the dietician by a nutritionist.

They are following the same strategy than with Naturhouse. *“Opening a first shop, noticing that nothing happens as expected... People come in and ask whether it is a beauty centre and if they depilate.”*

Marin said:

Since the first shop does not run as expected, the underlying logic of others would be: “it does not run, close down!” Our underlying logic is: “it does not run, change it until it finally runs!” In addition to “anti-aging” now we do massages and depilate there. We are refining the format, we are correcting the course. And the project starts running better. The project looks now different from our initial expectations. It is not what we wanted at the beginning, and maybe the final concept will be completely different from the initial one. Our tactic is now attracting those clients that view us as a beauty centre and during a massage or a depilation offering them a diet and complements to eliminate lines in the face and look younger. We spent five years creating Naturhouse until we started franchising it...

Founding the growth

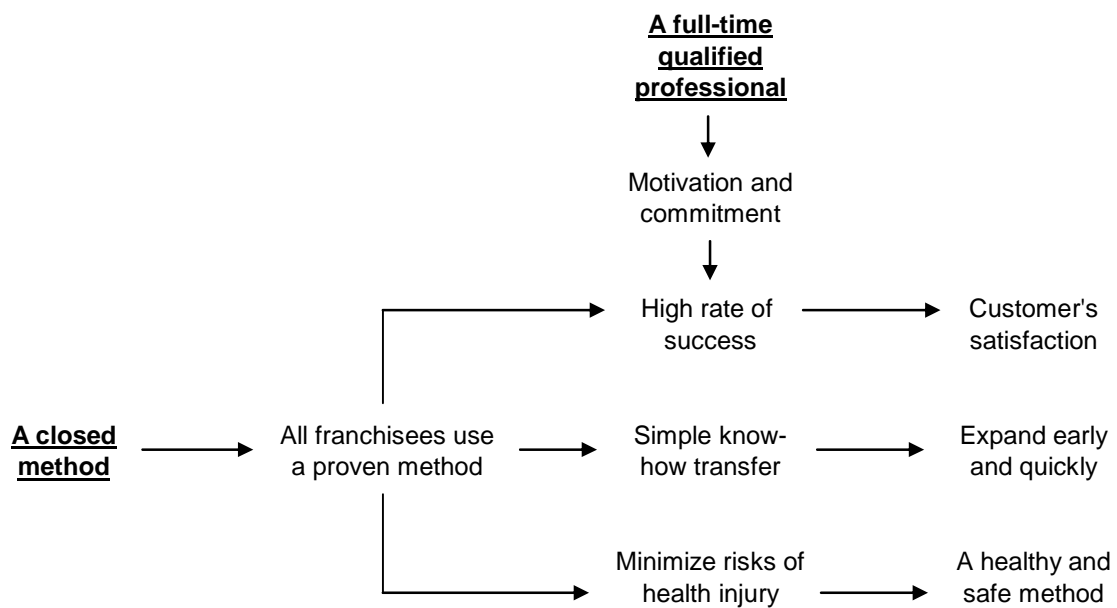
Grupo Kiluva has made several important strategic decisions throughout its history. Maybe the most important has been the strategy of growing through franchisees, which has let them to scale the business model up very quickly without relying on external founding. The growth of the group has been financed thanks to the retained earnings, which have ranged between 10% and 20% on sales. Despite the number of “approximations” to the group by potential investors, Revuelta has always refused recurring to venture capital, to other private investors, and even to an IPO. As he said:

Now the business does not need funds to grow, because we grow thanks to franchisees and master-franchises. Why do we want external funding? And I do not personally need money.

In some countries –i.e. the UK- they expand through the formula of master-franchises, which provides flexibility and reduces risks in complex and differing markets. *“Someone who risks his or her money, do it his or her way, without compromising the paradigm and altering our way of doing things.”* In other countries like Italy, the expansion is through shops owned and directly managed or franchised.

7.3.5. Naturhouse business model representation

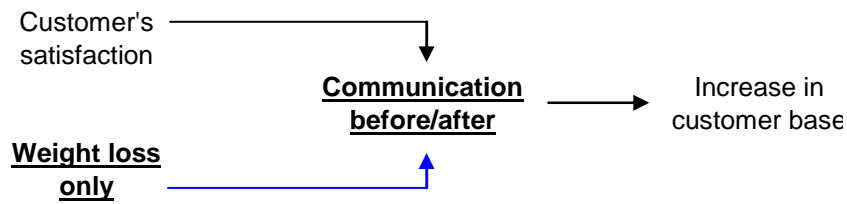
Naturhouse business model is based on the use of a closed method; all franchisees use a proven method. Since the method is proven, there is a high rate of success and most of the customers achieve their goals and get satisfied. The method is applied by a full-time qualified professional who ensures the success by motivating the customers and getting their commitment to follow a diet to lose the excess weight. Since all the franchisees use the same method, the know-how transfer is simple, a condition to expand the business early and quickly. Finally, the fact that none of the franchisees is allowed to use a method different from the “Naturhouse method” minimizes the risks of health injury and spreads the perception that the method is healthy and safe.



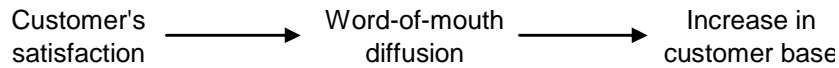
Customer’s satisfaction increases the customer base. An increasing customer base proves the reliability of the method and may prove the inferiority of rival methods, thus reinforcing the choice of a closed method. Giving advice for free increases customer’s satisfaction; the customer is not compelled to buy dietetic complements and perceives that the professional’s priority is the customer’s success rather than selling dietetic complements in exchange of the given advice.



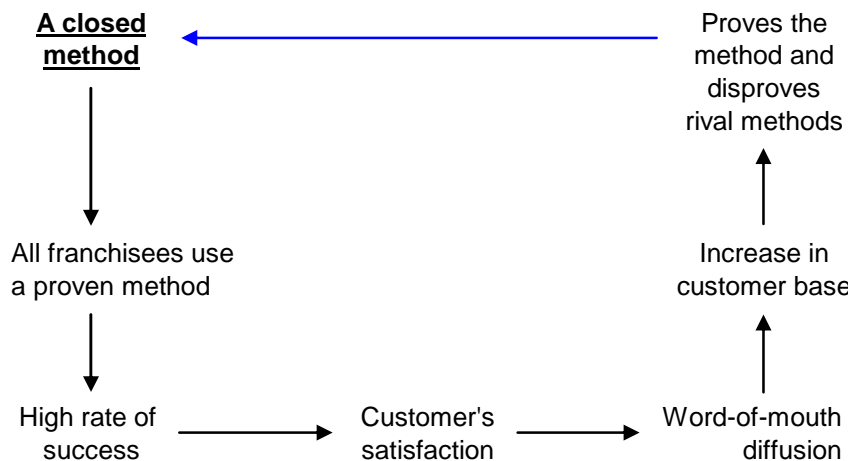
Customer’s satisfaction can increase the customer base thanks to the corporate communication before/after, which is possible due to the fact that Naturhouse chose to focus on weight loss only:



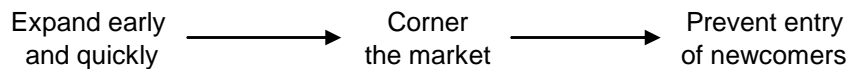
But customer's satisfaction can also increase the customer base thanks to word-of-mouth diffusion:



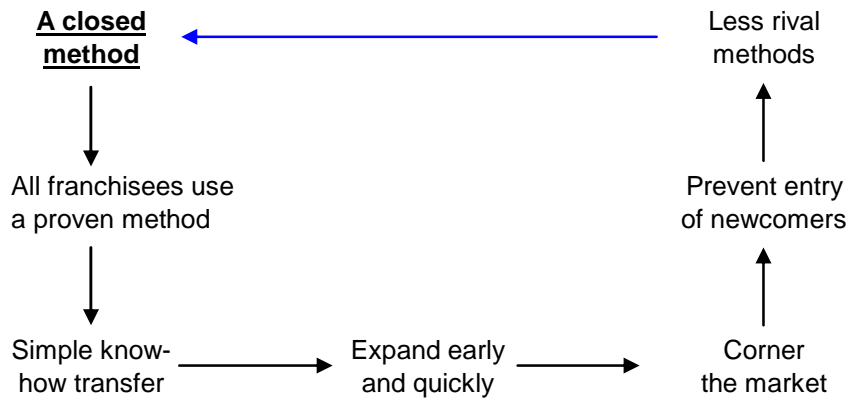
We can combine the above figures to get the first virtuous cycle. The use of a close method, which means that all franchisees use a proven method, results in a high rate of success. There is a large “army” of satisfied customers who become advocates of the method and help increase the customer base through word-of-mouth diffusion of the method’s reliability. As the customer base increases the method becomes more proven in view of the potential customers; and this reinforces the use of a closed method as a basis for the business model.



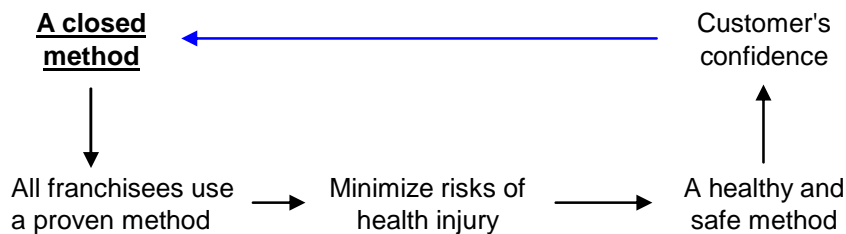
One of the key success factors of Naturhouse is preventing the entry of newcomers by expanding the business early and quickly to corner the market:



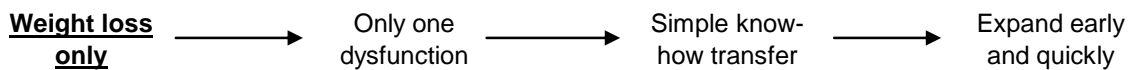
By preventing the entry of newcomers, there are less rival methods and the Naturhouse closed method is reinforced. We can then identify a second virtuous cycle:



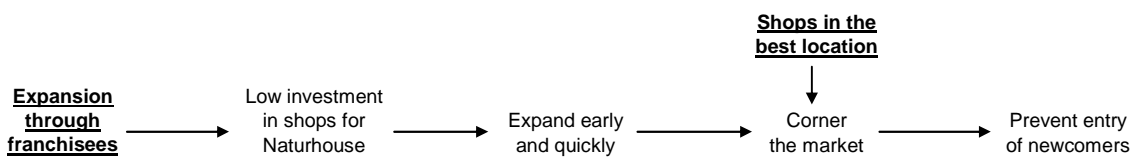
From the bottom part of the first figure we can identify a third virtuous cycle. The perception that the method is healthy and safe increases customer's confidence and also reinforces the reliance on a single and proven method:



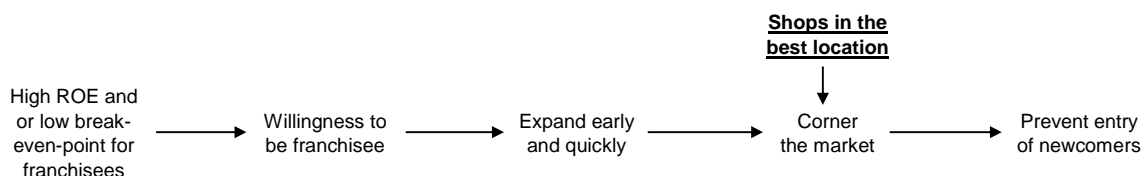
An early and quick expansion facilitated by a simple know-how transfer is made possible thanks to the use of a closed method and reinforced by the choice of focusing the business in weight loss only, which permits to treat only one dysfunction:



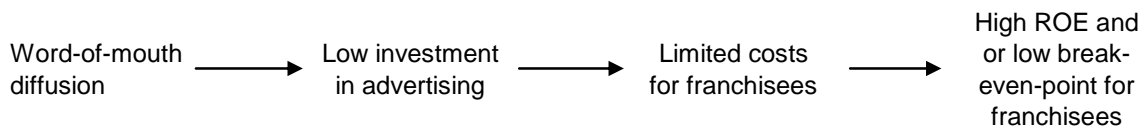
Naturhouse expansion through franchises –which required a low investment in shops– also allowed an early and quick expansion of the business to corner the market and prevent the entry of newcomers. Cornering the market has also been made possible thanks to the choice of finding the best location for each of the shops:



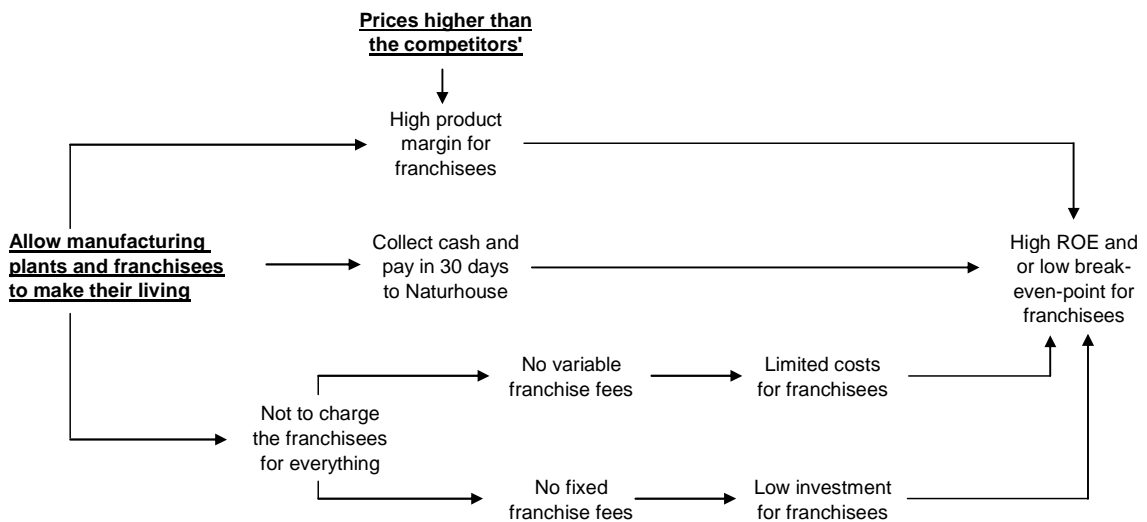
Since the expansion through franchisees requires finding entrepreneurs interested on being franchisees, Naturhouse has made several choices to allow the franchisees to get a rewarding ROE and/or deal with a low break-even-point:



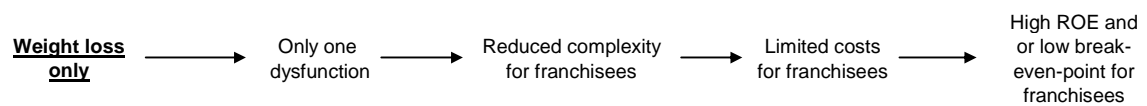
First, the reliance on word-of-mouth to spread the customer's satisfaction and increase the customer base reduces the franchisees investment in advertising and limits the costs for franchisees, which results in a high ROE and/or a low break-even-point:



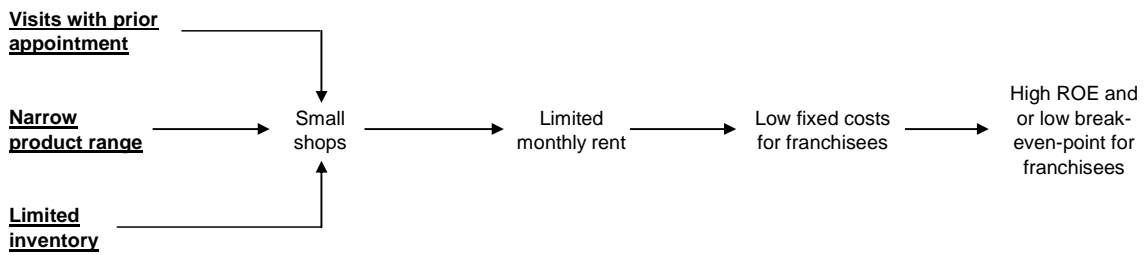
Second, the choice of allowing the franchisees to make their living also results in a high ROE and/or a low break-even-point. Naturhouse grant their franchisees a high product margin, supported by prices which are higher than the competitors'. They also allow the franchisees to collect cash and pay in 30 days to Naturhouse, a practice that reduces their investment in working capital. The choice of allowing them to make their living results in a practice of not charging the franchisees for everything, as other franchises do. The franchisees have to deal with neither variable nor fixed franchise fees; it limits the costs for franchisees and keeps their investment low:



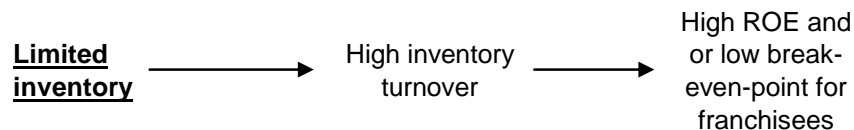
The choice of focusing the business in weight loss only allows concentrating in only one dysfunction, which reduces the complexity and, hence, limit the costs for the franchisees:



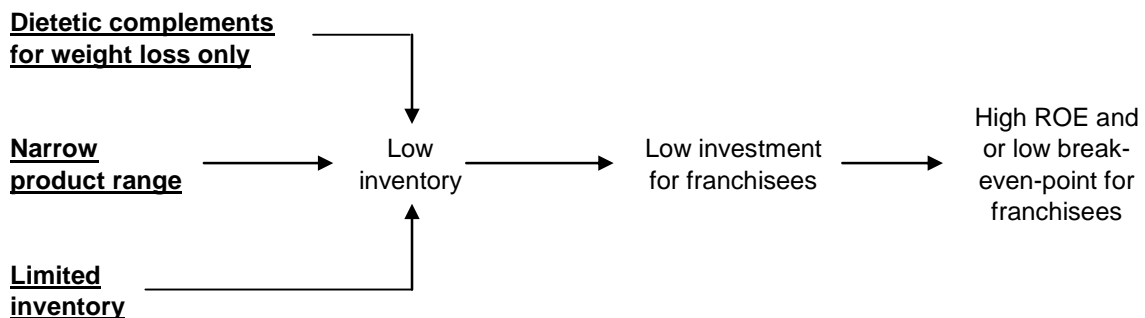
Three choices allow the franchisees to rent small shops: sequencing the visits requiring a prior appointment, narrowing the product range, and limiting the inventory held by the franchisee in the shops. Small shops means limited monthly rents and low fixed costs for franchisees, which result in a high ROE and/or a low break-even-point:



Additionally, by limiting the inventory held by the franchisee in the shops the business experiences a high inventory turnover, which results in a high ROE and/or a low break-even-point:



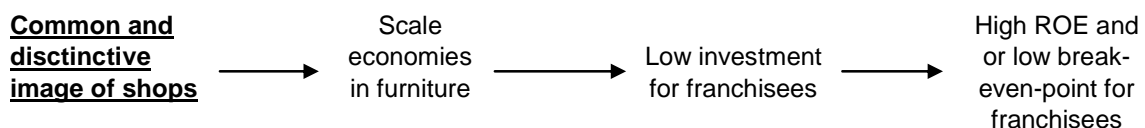
Three choices allow the franchisees to hold a low inventory in the shops: selling dietetic complements for weight loss only, narrowing the product range, and limiting the inventory held by the franchisee in the shops. Low inventory means a low investment for franchisees, which results in a high ROE and/or a low break-even-point:



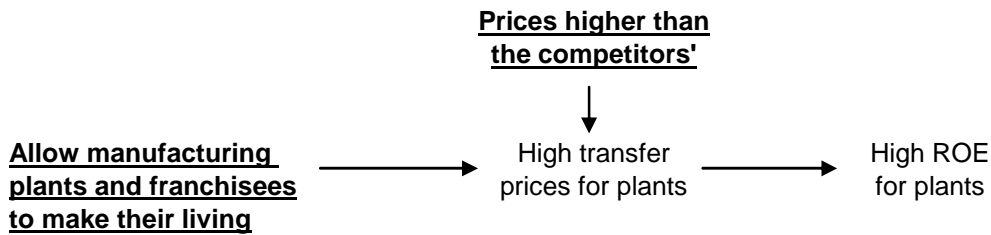
Of course, selling dietetic complements for weight loss only is made possible thanks to the prior choice of focusing the business in weight loss only:



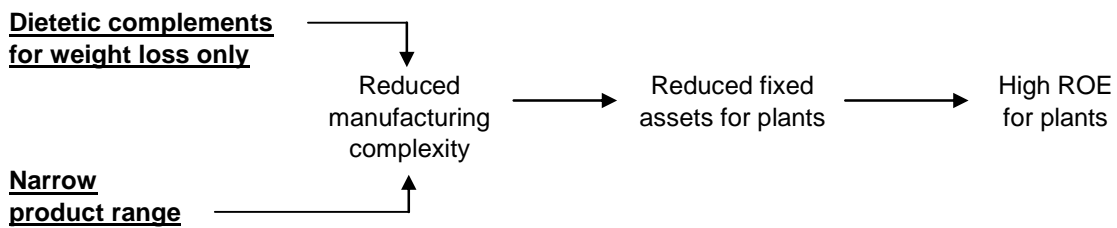
Another trigger of a high ROE and/or a low break-even-point is the choice of having a common and distinctive image of shops, which results in scale economies in furniture and a low investment for franchisees:



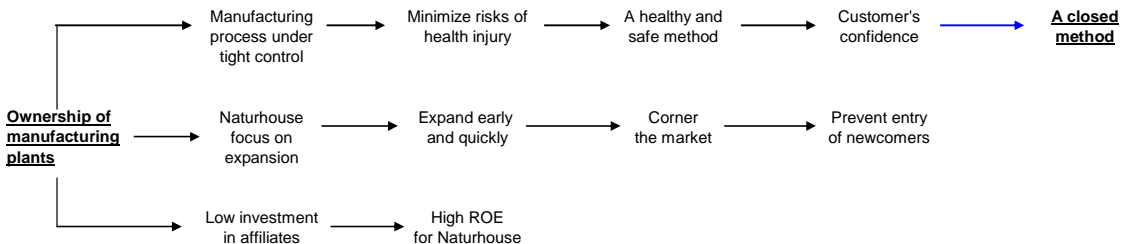
Naturhouse also allows the manufacturing plants to make their living. They are allowed to set high transfer prices to Naturhouse, supported by prices which are higher than the competitors':



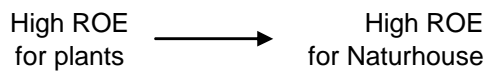
Manufacturing plants also achieve a high ROE thanks to the choices of selling dietetic complements only and narrowing the product range; both reduce the manufacturing complexity and, hence, the fixed assets involved in the manufacturing process:



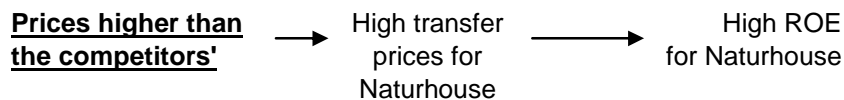
The choice of having a 49% of the equity of the manufacturing plants has three consequences: keeping the manufacturing process under a tight control and, therefore, minimize the risks of health injury and ultimately reinforce the use of a closed method; focusing on expansion to corner the market and prevent the entry of newcomers; and holding a low investment in affiliates:



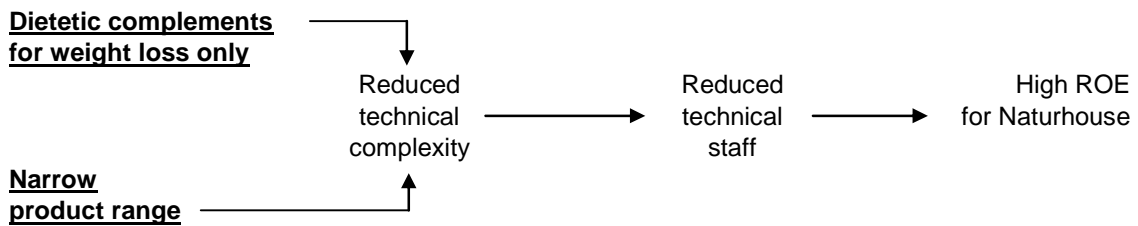
Of course, a high ROE for the manufacturing plants means a high ROE for Naturhouse:



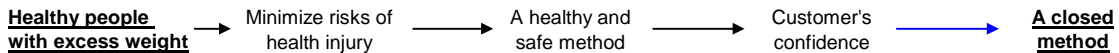
A high ROE for Naturhouse is also achieved by setting high transfer prices to the franchisees, supported by prices which are higher than the competitors':



In a similar way than we have seen with the manufacturing plants, Naturhouse achieves a high ROE thanks to the choices of selling dietetic complements only and narrowing the product range; both reduce the technical complexity and, hence, the required technical staff:



Finally, the choice of treating only healthy people with excess weight minimizes the risks of health injury and ultimately reinforces the use of a closed method:



7.3.6. Naturhouse approach to innovation

The origins of Naturhouse

Grupo Kiluva was founded in 1986, but to fully understand its origins we have to refer to 1973 when Revuelta was contracted as a consultant by Dietisa, a manufacturer of dietetic products with plenty of financial problems. Revuelta made a report and the owners asked him to implement his recommendations. In a few years the company was able to overcome the crisis and achieve a turnover of 20 million € and a profit on sales of 20%. Among the measures he took are a new sales and marketing strategy conceived of after several trips to the USA and a greater focalization on the product variety.

In 1986 the family who owned Dietisa sold the company to a French multinational corporation. Revuelta sold his shares too –he had a 6% of the equity- and founded Grupo Kiluva.

During the first years, Kiluva distributed dietetic products to independent retailers. One of the tasks in this stage was to train the owners of these shops in selling their products.

In 1991 new competitors entered the dietetic products market following a liberalization process. A register for each company was created to replace a specific register for each product. The change is due to a European directive. The administration ward disappeared and individual product registration was no longer required. Each company had to self-control the components they used in their products. Prior control disappeared but the companies that infringed the law could be forced to clean the products from the market and were subjected to penalties.

During the first nineties, and especially as a result of the economic crisis of 1993, there was an increase in the competence between the players to get as much space as possible in the shelves of the dietetic shops. Grupo Kiluva was stuck in the middle between the big industry leaders, Santiveri and Dietisa, and the small competitors that competed on price.

Additional to this increasing competence, there was a lack of professionalism on the part of the majority of the independent retailers.

At that time a growing trend in different industries was the launch of retail chains as a means to verticalize the firms and render the commercial intermediaries obsolete. Following this trend, Naturhouse decided to open a first shop.

As Revuelta commented:

At that time there was competitive pressure and the manufacturers were on the retailer's hands, either the independent shop or the big distribution. The independent shop was not professionalized and the big distribution had a lot of bargaining power. We clearly saw that it was necessary to reach the end user directly by skipping the independent retailer and the big distribution.

The first shop

The first Naturhouse shop was opened in 1992 in Vitoria. Revuelta wanted to replicate his experience at Dietisa and to test in the Spanish market several concepts learned in trips for the USA. In this first shop all kind of dietetic products, even beauty products, were sold, massages were given, and group therapies to lose weight were organized.

The shop did not perform quite well due to its location in an emblematic zone of Vitoria and to the large variety of products and services. Another mistake was to buy instead of rent the premises.

The first shop was a lab where they conducted experiments. *“He [Revuelta] setup the shop and started doing tests, with diets, with dietetic complements, and with unrelated other things he wanted to experiment with –cosmetics, hair, nails, et cetera. He touched many different things which finally he was rejecting, until he reached the essence of Naturhouse: a qualified professional wearing white coat, teaching the client how and what to eat, and helping him or her to lose weight thanks to a diet and some complements, a line of products to be sold only in the shops.”*

The second shop

In 1993 Naturhouse opened a second shop in another location, in an area of middle-income, with the only idea to provide advice services to lose weight by a qualified dietician and sell only dietetic products related to the excess weight.

Although the initial purpose was creating shops focalized to weight loss, in the first shop they sold and provide a wide range of products and services. Even a masseur and a naturopath collaborated with the shop. There were also treatments for hair, nails... *“Until Revuelta said: ‘I want this product and this and this... out of my shop.’ He had the belief that a shop that sells a lot of products loses focus, and he wanted the focus to be in weight control. There was a process of pruning that ended up with focus and differentiation. That is definition. Some features were sacrificed in exchange of focus. The driving force of the project was the desire to professionalize the industry.”*

After the experience with the second shop the format was clear and ready to be scaled up. *“Getting a performing format was not easy, but once it was clear that it ran as expected, it was a process of just replicating; copy and past.”*

The creation of the business model

Marín said:

The creation of the business model took more than five years, although the basic idea –to reach the final consumer through an own channel and an own method- was clear. The trigger was probably the 1993 crisis and the 1991 liberalization of the market for dietetic complements. Up to then the market was regulated, with the need to register all the products. There was an entry barrier which was eliminated thanks to the liberalization. Plenty of companies then entered the market. The idea had the origin at Dietisa where it did not fully materialize, and Revuelta probably saw something similar to dietetic centres in the USA. However, the final idea is completely different from the initial idea.

The genesis of the business model is in the difficulties experienced by Dietisa when they sold to the traditional retailers at the time Revuelta and Abelló worked for the company. It was a fight based on low prices and discounts to sell large volumes. The pharmacists did not accept any suggestion by the producer of the dietetic products –“I have a degree. You are not going to tell me what I must do or recommend.” They said: “I have tested your product and it does run,” while they knew that a competitor had offered a similar product with a larger discount. The retailers said: “Nobody asks me for this product” or “I will buy it when someone asked me for it.” *“We did not control anything. The battle was won by the cheapest supplier or the supplier with the most beautiful packaging.”*

Working for Dietisa, they could see in several trips for the USA more professionalized shops with focused product lines, some types of group therapies, et cetera. Some pilot shops were setup. They were specialized in just some product lines. The staff wore white coat and was able to provide the clients with advice. Those shops were self-sufficient from the financial point of view and were also used for training and new product testing. The concept was not still fully defined.

But Dietisa was sold to a French multinational company and they left the firm. The acquirers of Dietisa did not believe in the project of opening shops and discontinued it.

Revuelta and Abelló had to start again since the very beginning, *“but facing a terrible market aversion. Our clients returned the merchandise because our competitors threatened them with halts in the supply.”* They started with a new company, a new brand, a new product gamma, but could keep *Peso Perfecto*, a group therapy they started to work with when they were at Dietisa.

After having incorporated the new company Grupo Kiluva, they started an initiative called “recycling” consisting of an alternative to the traditional way of working. Similar to a “corner” in a department store, they supplied the retailer a set of products to be billed after the retailer sold them. They also provided the end client with advice for free. The retailer did not have to make any arrangement in the shop. They guaranteed a margin to the retailer who had no inventory. The contracts were for one year. The project was a complete failure because all the competitors concerted to fight against it reducing prices and giving a higher margin to the retailer. All the members of the

industry association attacked the initiative as it allowed the retailer not to charge for the visit. After the expiration of the one year contract, all the retailers refused to continue with the initiative, and it died. However, the initiative had allowed Grupo Kiluva to launch a product line to the market. *“We knew that these products are effective and we decided to open the first shop.”*

Abelló explained the competitors' reaction:

I attended the meetings of the industry association and they said: “You are fool. You have invested in a shop that does not run. And now you have opened a new shop. You are wasting your money opening shops. And your clients are refusing your products [“recycling” initiative]. You will not survive quite long.” In the meantime, we opened more shops. In the next meeting, the competitors said: “I have visited some of your shops and nobody entered during my visit. You have very few products in the shelves.” I said ‘yes’ to all their comments. I was not going to explain them our strategy of few products with high inventory turnover and visits with prior appointment to secure privacy. My replay was always: “Yes, we do not have clients. The shops do not run. This is not what we expected. We are worried.” In the meantime, more and more shops. They did not notice that the model was based on appointments to avoid a continuous flow of clients, few products but high turnover... My role in the meeting and a similar role by the sales force allowed us to expand fast without a reaction by the competitors who did not understand what was happening. They competed against us in the field of the traditional retailers, fighting the “recycling” initiative, and leaving our shops free of marking. They have concentrated in the traditional retailers and have enclosed themselves in this circle. It has allowed us to expand.

The competitors did not react due to the role of Abelló in the industry association meetings and the role of the sales force unconsciously confirming that the shops were not performing quite well. But later, once they observed the progress of Naturhouse, they did not start opening their shops for fear to lose their retail customers. Their shops would have competed with them. They could have done it using a second brand, and a different packaging, but it had meant risk and investment.

Santiveri sells to supermarkets, hypermarkets, pharmacies, dietetic shops... Their shops would have competed with all these channels. The only option was a separate business unit. Dietisa is part of the French market leader, and they follow the kind of strategies that run well in France. Soria Natural has done several unsuccessful attempts to setup a chain of shops.

All the competitors use group therapies in one way or another to promote the sales of their products. *Peso Perfecto*, which is also the name of the corporate newsletter, is the group therapy *Revuelta* and Abelló linked first to Dietisa and later to Naturhouse. *“We have kept the spirit, but we have individualized, personalized, and de-dramatized the therapy. The therapy increases the motivation, because the participant is held accountable for his or her relationship with the freezer. The close link with the dietician –or before with the therapy organizer- is a powerful reason to make an effort in order*

to succeed at the time of climbing to the scales. Nobody likes to feel ridiculous. Some group therapies seemed sects with their adepts...”

Naturhouse business model prevents from several industry malpractices “*such as volume discounts or asking for ‘the product everybody claims for.’ Usually, ‘everybody’ means one client who comes to the shop because he or she has not found the requested product in any other shop. The competition sells to shops that sell everything, and today they still do not understand why we are not selling at least two variants of the same product.*”

They compare the dietetic industry with the fashion industry: “*Zara and the small shop of Sra. Maria. She does not understand the basics of the business: ‘I will do this product for you, the product wanted by the market, you will get a 100% margin on purchase cost, but you will just sell the product I supply to you.’ Sra. Maria runs fast to a distributor to buy the item everybody claims for. Sra. Maria is the dietetic market and a franchise is Zara.*”

Naturhouse business model is based on a franchise, which consists of “*a brand, a system, and a product, all under the same umbrella.*”

Aznar remembered:

We did not understand why Revuelta wanted to run so fast. We said: ‘What hurry, what hurry!’ We opened 250 new shops every year. He did that to corner the market. ‘We know the business, it runs well, people believe in our methods. We must corner the market to prevent someone’s entry. Since direct competition will not locate close to our shops, we can not leave free zones.’ That is the strategy of wars, the pre-emptive strategy of scorched earth.

Revuelta said:

What is really complex is designing and testing the business model. The remaining is daily management and expansion mainly international. And that is the managing director’s responsibility. The growth is done through franchises and master-franchises and the manufacture does its way. If you have a powerful business model, it is not complex to scale it up. If you do not have a powerful business model, the daily management must counter the weaknesses of the model using promotions and formulas to sell which reduce the profitability.

The simple and easy ideas are the ones that run. However, what is complex is to find out a simple and easy idea. Now everybody can copy to us, but we have already walked a way of more than 1.600 stores.

Felix Revuelta determination

Marín repeated some of the ideas communicated by Revuelta:

- Who fails is who does not attempt it.

- *When someone has said: "It can not be done," I have said: "It can be done." And it is better if they say that it can not be done, because we will do it, and we will do it our way. The only way to do it well is to do it our way.*

- *If what is logical and conventional is "A", we will do "B". Following an underlying logic, of course...*

He is considered by the managers as a *"great strategist who had a lot of tenacity and confidence on himself, and worked a lot of. It is essential to be convinced of what you are trying to do. He said to himself: 'I must do it and I am able to do it. I have done it and that's all. Maybe I have done it later or not so well than I expected, but finally I have done it. Once done, we will already improve it.' We are what we really want to be. If you propose something to yourself, you can get it sooner or later if you are determined."*

One of the managers compares Revuelta with Amancio Ortega, the founder of Zara: *"the secret is not giving orders to the subordinates. The secret is transmitting confidence, bringing together, communicating clearly the goals and the strategy. Revuelta has worked very much and has reach until the smallest details, as Ortega did. I would like to be half an hour close to him [to Ortega]. I will hear something. I will learn something."*

Revuelta's involvement and ability to involve others can be summarized in several anecdotal events: *"there was a flooding in a warehouse and everybody was there to bale the water, Revuelta the first."*

Table 7.3. Naturhouse choices

CHOICE	TYPE	EXPLANATION
A closed method	Policies	All franchisees use the same proven method
A full time qualified professional	Policies	In all the shops there is a full time qualified professional
Weight loss only	Policies	They focus on weight loss only and do not treat other dysfunctions
Advice for free and non-compelling	Policies	Full time qualified professionals give advice for free and customers are not compelled to buy dietetic complements
Visits with prior appointment	Policies	A prior appointment is requested for each visit (for the first visit and for the weekly follow-up visits)
Dietetic complements for weight loss only	Policies	They just sell dietetic complements for weight loss
Healthy people with excess weight only	Policies	They just treat healthy people with excess weight; unhealthy people is derived to an endocrinologist
Common and distinctive image of shops	Policies	All shops have the same external and internal image, similar size, distribution, furniture, displays, et cetera
Narrow product range	Policies	Variety of products and variants of the same product are limited
Limited inventory	Policies	Inventory of products in the shops is limited
Communication before/after	Policies	Communication is based on showing success stories of real customers comparing the weight parameters and showing photos
Ownership of manufacturing plants	Governance	They hold a 49% of the equity of the manufacturing plants
Expansion through franchisees	Policies	Expansion is primarily carried out through franchisees
Allow manufacturing plants and franchisees to make their living	Policies	They set rewarding transfer prices and do not charge the franchisees for everything
Rely on internal founding	Policies	Expansion has been founded with retained earnings
Shops in the best locations	Policies	They do not open a shop if the location is not the best possible location
Cooperate with traditional medicine	Policies	They do not compete with endocrinologists
Prices higher than the competitors'	Policies	Selling prices to consumers are higher than the competitors'

Annex 7.3. Questionnaire prepared to interview Naturhouse managers

About the business model

1. Naturhouse business model consists of... (describe the business model in brief)
2. In what business Naturhouse is? Health? Retail?
3. Where is really the “secret” of Naturhouse?
4. Was Naturhouse the first in Spain? And in the world?
5. What is really new and different in Naturhouse with regards to the competition? The dietician wearing a white coat? The prior appointment and the privacy?
6. Was it seen in the USA?
7. Is really unique now? Are there other similar companies in Spain? And in the world?
8. Why Kiluva opened shops in 1992 instead of continuing selling to independent retailers? What was the role of the 1991 liberalization of the market? And the role of the 1993 crisis?
9. What was the role of the increasing competence for space in the independent retailers’ shelves?
10. What are the strategic decisions that have been shaping the business model throughout its live? Only franchisees? Only weight control? Staff wearing a white coat? Few articles in the shop?
11. What are the “what to do” and the “what not to do”? Naturhouse had to renounce to... (i.e. treat problems other than excess weight)
12. Who are the customers? Why the customers do not go to other services? Where did they go before Naturhouse? To the doctor? To a traditional retailer? To nobody?
13. Why the franchisees who are dieticians run their shops better than the investor and the shops owned and managed directly?
14. Is it possible to copy, imitate, or replicate Naturhouse business model?
15. What are Naturhouse strengths and weaknesses now? And when the company was founded?
16. Why did Naturhouse fund the growth thanks to retained earnings rather than external funding?
17. Why Naturhouse has just a 49% of the equity of their manufacturers and not a higher or lower percentage?

About the competition

18. Who are Naturhouse competitors?
19. What is the nature of the competition?
20. What are the features that distinguish Naturhouse from its competitors?
21. Is there any competitor with the same or similar business model?
22. When Naturhouse started opening shops, what did the clients (independent retailers) say?
23. How did the competition respond?

About the innovation

24. How Naturhouse was born?
25. Do you believe in “a method” or things just happen, learning from errors?

26. Do you believe in planning?
27. Before opening the first shops, did you conduct market research? What steps did you follow?

About the future

28. How do you envision the future?
29. Does Naturhouse have any limit?

8. CASE STUDY REPORTS

The findings of the analysis and interpretation of the data are summarized in the case study reports of this chapter.

We devote a section to each of the three cases and a fourth section to the cross-case analysis.

The individual reports are divided in three epigraphs.

In epigraph **8._1 Analysis of the data in view of the theoretical propositions** we pave the way to confirm, challenge, or extend the theoretical propositions of section **6.1. Theoretical Propositions**. We verify in this epigraph whether each theoretical proposition does apply or does not apply to each of the individual cases. Whenever possible, we support our reasoning with direct quotes from the written case studies of chapter **7. Case Studies**.

In epigraph **8._2. How the choices were made and the virtuous cycles created** we try to find out how the choices of each business model were made and the virtuous cycles created. Despite choices *“are based on prior knowledge about the relationship between organization actions and outcomes”* (Duncan & Weiss, 1979, p. 13), we need to know how the choices of a business model are made, how a fit of all the choices can be achieved, how virtuous cycles are created from those choices, and how the entire set of choices can be difficult to *“copy and past.”*

Choices can be the result of a rational process, a process comprehensive, exhaustive, and analytical in approach (Hart, 1992), in which goals are identified before and independent of the analysis of alternatives (Fredrickson & Mitchell, 1984).

On the other hand, choices can be the result of *“a highly judgmental activity that rests in the hands of a dominant leader. As such, analysis is replaced by informal discussion, and search is heavily biased by experience and [functional] orientation”* (Fredrickson, 1984, p. 460).

Strategies formed by choices made this latter way are the result of *“countless strategic decisions that have been made, one at a time, over a period of years”* (Fredrickson, 1984, p. 400); they have formed *“gradually, perhaps unintentionally, as he [the strategy-maker] makes his decisions one by one”* (Mintzberg, 1978, p. 935).

Using another approach (Sarasvathy, 2001), choices may be the result of either causation or effectuation processes. Causation consists of choosing between means to create a particular effect, and effectuation consists of choosing between many possible effects using a particular set of means. A decision process involving causation consists of a given goal to be achieved, a set of alternative means, constraints on possible means, and criteria for selecting between the means. A decision process involving effectuation consists of a given set of means, a set of effects, constraints on possible effects, and criteria for selecting between the effects.

Finally, in epigraph **8._3. What else... do we have learnt from the case study?** we summarize the learning from the case study. Whenever possible, we match the learning

with related statements from the review of the literature of chapter **3. Review of the Literature**.

The cross-case analysis of section **8.4. Cross-Case Analysis and Results** consists of finding replications among the individual cases.

The structure of the chapter is consistent with the research strategy represented in figure 2.5 of Yin (2003, p. 50) in which individual case reports as well as a final cross-case report are written.

Having codified and classified the information and having converted it into written case studies has allowed us to conduct the analysis and interpretation of the data in a systematic way.

This chapter is the basis of the analysis of chapter **9. Analysis** which in turn consists of the inductive process of theory building that leads to the ending theory of chapter **10. Theory Developed Throughout the Research (Ending Theory)**.

8.1. AUSA CASE STUDY REPORT

8.1.1. Analysis of the data in view of the theoretical propositions

1. Opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems.

Rival proposition: Opportunity recognition relies on firm's routine practises and procedures.

The founders of the company and creators of the first business model, the manufacture of PTV cars, were some enthusiastic and passionate friends who shared the mechanics and the motor sports as hobbies. Therefore, opportunity recognition relied more on individual initiative and capacity rather than on formal systems of a non-existing firm.

The opportunity to manufacture dumpers was recognized as a result of “looking at what exists in the marketplace” when they visited a trade fair in Germany and saw –personal intuition- a prototype of dumper, a product with a promising demand –the Spanish construction industry of the sixties was a growing industry-, which constituted a new solution for a unmet market need –automation of some tasks-, and able to meet the goals the firm had after the failure of the PTV cars business: continue the business, leverage the accumulated know-how in engineering, and use the PTV components in inventory.

The EcoSite opportunity was also recognized as a result of “looking at what exists in the marketplace” when they discovered –personal intuition- that the waste in the works they visited was disposed mixed and unclassified, despite the increasing legal restrictions and the existence of a cost differential between classified and unclassified disposal.

“Looking at what exists in the marketplace” can be considered a systematic routine practise and procedure but probably conducted in an informal way, despite they refer to the creation of a “*human team being alert*” and use something like a checklist to guide market observation and get ideas when they visit clients or trade fairs (“*travel with the eyes opened*”).

We can conclude that opportunity recognition relied on personal intuition –dumpers and EcoSite- and individual initiative and capacity –PTV cars-, and that systematic routine practises and procedures, if used, were conducted in an informal way. Therefore, this theoretical proposition applies to AUSA.

2. Opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge.

Rival proposition: Systematic search for opportunities is not possible and opportunities are discovered without actively searching for them.

The founders' prior knowledge –mechanics and motor sports as hobbies- played a crucial role in the recognition of the first business opportunity, the manufacture of PTV cars. We cannot say anything about the search for this first business opportunity, but if the founders had lacked such prior knowledge they would not have recognized the opportunity.

The accumulated know-how in vehicle mechanics during this first stage was also crucial to recognize the second business opportunity, the manufacture of dumpers, and make the project commercially viable. They systematically searched for a business opportunity to replace the manufacture of the PTV cars. They wanted to continue with the business –in the meantime they mechanized parts for other assemblers not to interrupt the operations- and they knew that they had to search within the confines of their knowledge –constrain the search- not only to leverage the accumulated know-how in engineering but also to find an alternative as soon as possible. Systematic search was done through “looking at what it exists in the marketplace” and they found the opportunity visiting a trade fair in Germany. It had been difficult to recognize the business opportunity without a systematic search constrained to their prior knowledge. Systematic and constrained search was not only possible but also necessary.

“Looking at what exists in the marketplace” in the EcoSite opportunity is also an example of systematic search constrained to their prior knowledge of the various uses of their vehicles by the building companies. They had not recognized the opportunity without a systematic search within their industry and their customers’ industry. Once more, systematic and constrained search was not only possible but also necessary.

Despite they refer to innovation as a *“selective and organized search leading to products that do not exist,”* their search is selective and organized but informal.

They define the paradigmatic good innovator as the person who *“visits trade fairs and see “things” where common people do not see anything. That is an innate ability but it can also be trained.”* Seeing “things” where common people do not see anything refers to specific and idiosyncratic prior knowledge not possessed by common people not involved in the particular domain. It strengthens the notion that prior experience is a pre-requisite for opportunity recognition.

As a probe of the crucial role of prior knowledge, the EcoSite director have been recruited from outside the company because the position requires a different profile, civil works engineers and managers with experience inside works and in environment protection. He has expertise in the construction industry since he was managing works and knows the business from the other side.

Systematic search of ideas –mainly product ideas- is constrained at AUSA by the emphasis on generating focused rather than free ideas from employees, suppliers, distributors, and end users. Initially, the aim was to generate as many ideas as possible. Later, the aim was to generate fewer ideas but more linked to the corporate strategy. Free ideas resulted in a lot of interesting but unviable ideas; that is the reason for the shift to a guided and focused idea generation process with suggested issues or problems to be dealt with.

Another probe is the statement that *“it is easier to innovate within the confines of your traditional industry, because you know the clients, they know you, and there is brand recognition. There is fear to attack the unknown, to enter industries where AUSA is nobody and has to begin from scratch.”*

Therefore, we can conclude that this theoretical proposition applies to AUSA.

However, in the future, as part of their sustainability plan aimed at increasing the sales outside Spain and outside the building industry, AUSA will have to launch vehicles for other types of works and will have to create new businesses out of the machinery industry or the construction industry, in industries for which they do not have prior knowledge to constrain any systematic search. *“We are not agile designing and implementing services. Think of our sales force, whose skills are in selling machines and providing related services. (...). We are going to innovate out of our traditional product and sales network. We are going to innovate from scratch. That is why we will not have the know-how for the coming projects.”* They are targeting other customer segments like municipalities and other niche markets with few and small competitors like street cleaning. *“We have studied the industry [street cleaning]”* is another probe of their reliance on prior knowledge as a way to constrain any systematic search for business opportunities.

3. The greater the barriers to imitation created by causal ambiguity, the greater the sustained competitive advantage and, hence, the greater the goodness or superiority of a business model.

Causal ambiguity occurs when competitors do not understand the causal relationships between actions and outcomes (Reed & DeFillippi, 1990).

The transmission of the set of corporate values to market via the company products and the creation of a brand by “embedding” those corporate values in the product can be considered a barrier to imitation created by causal ambiguity. Competitors may not understand why the products are so appealing in the market to the extent that some of them even have copied the orange colour.

AUSA corporate values are “embedded” in the products but also shape the way of competing and the way of dealing with the stakeholders, thus increasing the causal ambiguity. The result is a differentiator –the brand- that allows the company to sell at higher prices compared to the competitors, specially the so-called Spanish copiers.

Causal ambiguity is even more important as far as EcoSite is concerned. They admit that it is a procedure which can be imitated without so much difficulty and cannot be patented because it does not incorporate any technical novelty. However, *“the provision of the service requires an array of different steps which cannot be thought of unless someone has done it during some time. A copier or imitator should learn what we have learnt in five years of experimentation and tests. There is just one quick way to start this business... hire the AUSA team,”* a statement that confirms the advantage over the competitors who must start from scratch since development requires skills, know-how, and knowledge built up over time (McGrath, 2000). This idiosyncratic knowledge accumulated through trial-and-error creates barriers of imitation based on causal ambiguity, since the competitors are unable to figure out the actions that lead to the desired outcomes. For instance, the transfer plants *“know the waste and how to classify it, but they do not know what happens inside the works, they are not used to deal with the workers who sometimes are from different external companies.”*

4. The more clear and explicit the choices of a business model, and the more differing from those of the competitors; and the more

strengthening the virtuous cycles, the greater the goodness or superiority of the business model.

AUSA choices have resulted in a strategy of few units for niche markets, high prices, low costs due to the manufacturing strategy and the aim to supply the world market, high margin to fund R&D and launch innovative products, a close relationship with the customer, et cetera; a strategy different from that of the big manufacturers, whose main competitive advantage is scale economies in purchasing, and that of the Spanish competitors, who are “*literally copiers*” and almost do not have post-sale service.

A part from targeting niche markets, aspiring to the world market, and “embedding” the corporate values in the products, other choices seem clear, explicit, and differing. Examples are the technological independence given by a powerful R&D department with differentiating patents like the Compen 4 x 4 motion transmission, the early adoption of just in time and lean manufacturing philosophies to profitably manufacture short runs and accommodate varying customer requirements, the assembly line as plant layout, or the application for the most demanding international official approvals.

AUSA choices are firmly kept and the company refuses any departure from the business model. Targeting niche markets is a choice so clear that they have refused some “siren songs” in the form of businesses beyond AUSA capabilities like an agreement to import and distribute in Europe heavy construction machinery for public works manufactured by a large Chinese company or an order for twelve thousand units of the Task M50 for the USA market. They recognized that they have halted projects with a prototype already built because they found out that the product was not addressed to a market niche and they anticipated a tough competitive response by big manufacturers. However, they would accept to depart from the business model but with a strategy to protect the core business. They would use a second brand to launch a dumper for a tenth of the current cost for high-growth developing economies.

If disruptive strategic innovations are ways of doing business different from and in conflict with the traditional ways, and the choices or trade-offs are different in the two ways of doing business (Charitou & Markides, 2003), we can conclude that the extent to which the choices of a business model are different from the choices of rival business models could explain part of the success of the business models and, hence, part of their goodness or superiority. Therefore, we need to assess how different the choices of AUSA are from those of their competitors.

In table **8.1. Choices of AUSA compared to big multinational firms, Spanish copiers, and transfer plants (EcoSite business model)** AUSA choices are listed in the left column. We have identified three types of competitors. We indicate in the corresponding cell the counterpart of each AUSA choice for each type of competition.

What differentiates AUSA business model from the business model of the big manufacturers is the choice of targeting niche markets instead of targeting mass markets. They constitute two opposite choices.

What differentiates AUSA business model from the business model of the Spanish copiers is the choice of targeting the world market instead of targeting the domestic market, some choices related to the offerings (wide product range, complementary

products, complementary services –financial-, strong post-sale service –maintenance, second hand market-, specialization on machinery for the construction industry), some choices related to the technology (internal R&D, integrate suppliers in product development, obtain international official approvals, obtain patents), and some choices related to the organization (separated innovation organization and formal systems to generate, evaluate, and submit ideas). Those choices are also opposite.

In comparison with companies owned by investment funds, the main difference is the focus on the long-term goals.

Therefore, we can conclude that the business model resulting from AUSA choices clearly contrasts with that of the big manufacturers and that of the Spanish copiers. While in the former case there is no conflict because AUSA and the big manufacturers do not target the same markets, in the latter case the two business models are conflicting since AUSA and the Spanish copiers target the same markets and possess ways to weaken and interrupt the others' virtuous cycles (Casadesus-Masanell, 2004).

The EcoSite business model and the transfer plants business model are also contrasting, since they are based on two opposite choices and ways of doing business, charging a budget for a plan to classify the waste at source and charging a price per ton to classify the waste in the transfer plant. It is too early to determine the goodness or superiority of either one or the other, but we can conclude that they are conflicting since both target the same market and one of the two will be at the end the dominant design (Anderson & Tushman, 1990; C. M. Christensen, Suárez, & Utterback, 1998; R. M. Henderson & Clark, 1990; Michael L. Tushman & Anderson, 1986; Michael L. Tushman & Murmann, 1998).

Finally, we can conclude that AUSA business model is good since it allows the firm to attain its goals (Casadesus-Masanell & Ricart, 2007). AUSA choices deliver consequences that move the firm towards achieving its objectives (alignment to goal), choices complement each other well (reinforcement), there exist several virtuous cycles closely related to the goals and that imply growth (virtuousness), and the business model is able to sustain its effectiveness over time (robustness).

As we have seen in epigraph **7.1.5. AUSA business model representation**, the major part of AUSA choices delivers the consequence of higher product margins, and higher product margins result in high profitability, the objective of the firm (alignment to goal). Target niche markets and lean manufacturing are choices that complement each other well (reinforcement): lean manufacturing allows producing short runs at low cost, a condition to target niche markets. We have identified up to five virtuous cycles related to the goal of high profitability to hold departments, organizational designs, and management systems to promote the firm's growth (virtuousness). AUSA brand image ensures the sustainability of the business model over time (robustness).

5. The degree of formality depends on the stage of evolution, on the settings, or on the nature of innovation.

Rival proposition: The degree of formality does not depend on the stage of evolution, on the settings, or on the nature of innovation.

Settings refer to either the need to exploit or the need to explore (March, 1991), either refine and improve the prevailing strategy or create a new strategy (Regnér, 2003), either being in a mature environment or in an uncertain environment (S. L. Brown & Eisenhardt, 1995), either in a stable and predictable environment having to defend a position or in a unstable and unpredictable environment having to create a position (Hart, 1992), either dealing with a predictable future or dealing with an unpredictable future, or in early stages of a new business (Sarasvathy, 2001). Nature of innovation refers to either sustaining or disruptive innovations (Bower & Christensen, 1995; C. M. Christensen, Johnson, & Rigby, 2002).

At AUSA the innovation process is perceived as formal and structured by the management.

At AUSA the degree of formality depends on the stage of evolution (from maximum formality in the mature business of dumpers and forklifts to minimum formality in the emergent business of EcoSite), on the settings (from maximum formality in the predictable business of dumpers and forklifts to minimum formality in the unpredictable business of EcoSite), and on the nature of the innovation (from maximum formality in sustaining product innovation to minimum formality in disruptive business innovation).

Development costs of product innovations are huge, times to market are long, and substantial changes in projects are difficult and expensive. Industry characteristics could also be considered part of the settings, and therefore would determine a more formal type of innovation.

Having a separated innovation organization only makes sense in large and complex firms. It does not make sense in organizations led by one or few entrepreneurs. Therefore, the degree of formality also depends on the size and complexity of the firms.

Some pieces of information support the formal character of innovation at AUSA, starting from the statement: *“we must innovate with a clear definition of the goals to be met.”* A goal was clearly set through the AUSA Innovation Plan: generate a new product idea and a new business idea every year. It also defined types of innovation (incremental and radical product innovations –products new to the company and in the market-, and business innovations), established four categories of criteria to assess the ideas (strategic, operational, financial, and commercial), and created three departments (Product Strategy, Business Strategy, and New Concepts) and three linking committees (Product Strategy, Strategic Planning, and Product). If the goal is to generate and evaluate ideas, a procedure with steps and milestones was described and assessment tools –a quantitative analysis called DEFET, a business plan, and a pilot test- were created. The underlying philosophy is that *“ideas do not come unless you have a formal process to seek them.”* A probe of the formality is the creation of a separated innovation organization to insulate innovation from the day-to-day pressure. Another probe of the formality of the process is that development of ideas must ensure their commercial and financial viability and have to be submitted in the format of a business plan. In the department head’s words, *“my mission is to put the members of the committees in the disjunctive of saying yes or no. It is considered a failure if their decision is ‘we need further information.’”* Another probe is compensation of the department’s head, composed by a variable portion which depends on the number of ideas not only submitted but approved.

Making sure that a new idea fits the corporate strategy (fit with the corporate values and enhancement of the diversification strategy) is a probe that strategy making is consistent, but does not prove the follow-up of a formal process. The top ten ideas are further developed using internal and external information and analysed in view of the nine criteria classified in four categories stated in the AUSA Innovation Plan, but nothing is said about the use of analytical tools and frameworks (canvasses, matrixes, et cetera), a part from the use of payback calculations and other common tools. It seems that the only formality resides on the voting procedure.

On the other hand, relying on innovation circles to evaluate, grade, and rank the ideas through formal voting procedures and using creativity sessions to generate focused ideas prove the participative character of the process, but nothing is said about the use of analytical tools and frameworks to analyze the ideas generated. And they admit that creativity sessions are a means to generate only product innovations, and that they rely on consultant companies to generate new business ideas, as in the case of EcoSite.

In sum, idea generation and analysis is conducted with a high degree of formality, but it is probably limited to product ideas, in view of the outcome of the innovation process in the recent years, with several product ideas and only one business idea (EcoSite). Formality is also limited to procedures and organization, but does not mean the frequent use of analytical tools and frameworks.

From the case study we can conclude that the degree of formality at AUSA depends on the stage of evolution, on the settings, and on the nature of innovation.

6. Good or superior business models are developed through analysis and planning using analytical tools and frameworks and refined through the learning from trial-and-error.

Rival proposition 1: Good or superior business models are developed solely through analysis and planning using analytical tools and frameworks.

Rival proposition 2: Good or superior business models are crafted using the learning from trial-and-error.

Business creation at AUSA is considered to be a process of formal strategy making in view of the description and mission statement of the Business Strategy department within the AUSA Innovation Plan: seeks new viable businesses through identification and definition of customer needs, do pilot tests, and prepare and submit business plans to the Strategic Planning Committee, and more formally “seeks to create businesses that do not exist in the market.” However, Business Strategy has disappeared formally in the organization chart and its responsibilities assumed by individual managers (“*we have seen that it does not make sense to keep a separate department nor a person fully devoted to think of new businesses*”) and it seems that business creation is not so formal than product innovation.

Within the AUSA case study three business models may be distinguished: (i) the initial business of manufacturing PTV cars; (ii) the traditional dumpers and forklifts business; and (iii) EcoSite. We could conclude that the first two businesses were created without any analysis and planning. The founders started manufacturing PTV cars because they had the personal motivation and technical ability to fulfil the unmet market need of

driving a car in the sixties in Spain. The same founders discontinued the unviable PTV cars business and start supplying dumpers because they had the accumulated technical experience, they had the motivation to reorient the business, and they finally found another unmet market need to fulfil, but they did not conduct any analysis nor did any plan. They just systematically but informally “looked at what existed in the marketplace.” The choices that shape and differentiate the dumpers and forklifts business and the virtuous cycles that strengthen it have to do more with emergent strategy than with intended strategy (Mintzberg, 1978). They have been a sequence of decisions that exhibit consistency over time and they have configured a strategy formed “*gradually as he [the strategy-maker] makes his decisions one by one*” (Mintzberg, 1978, p. 935). They seem to be the result of “*countless strategic decisions that have been made, one at a time, over a period of years*” (Fredrickson & Mitchell, 1984, p. 400). The annual planning efforts of AUSA have to do more with programming than with strategy-making (Mintzberg, 1994; Mintzberg & Waters, 1982).

Therefore, the first two businesses of AUSA were not developed through analysis and planning using analytical tools and frameworks, and both the initial proposition and rival proposition 1 do not apply to them. Rather it seems that rival proposition 2 better fits the creation of both business models, despite we do not have evidence of a process of trial-and-error learning to craft them.

In the process of creating and designing the EcoSite business model we can distinguish two stages. Following the AUSA Innovation Plan and as part of the responsibilities of the Business Strategy department they conducted brainstorming sessions to extract ideas from both internal and external sources and hired a consultant company with expertise on identifying new business opportunities. It seems that the process was quite formal since the job of the consultants started from a matrix of potential market niches built crossing machine functionalities and industry needs. In parallel, they directly observed the works in which AUSA machines run and observed some transfer plants in The Netherlands where the mixed waste was classified using weight machinery. They explained how they did the necessary cognitive leap (O'Connor & Rice, 2001): “*we analysed the system and concluded that it was crazy, as things should be properly done since the beginning, without creating systems to correct a wrong way to work. We thought a lot about this issue.*” Therefore, the EcoSite business opportunity emerged thanks to the conjunction of the use of analytical tools and frameworks and opportunity discovery through field observation (innovation “*comes from market observation, (...). We rely on our ability to observe and our ability to create a human team being alert*”). Despite the informal character of field observation, we can conclude that this first stage was a mixture of formal and informal procedures.

In a second stage, they compiled legal and technical information, wrote a first draft of the operating procedures, and derived the formulas to calculate the economic benefits of the system for the customer. In parallel, they received a first order that allowed them to conduct a pilot test and experiment in a real setting, and get information to accurately calculate the benefits. The two tasks were parallel and complementary, since without the learning from a first job the operating procedures could not be tested and real data could not be obtained to show the benefits and get a first order. This second stage is clearly a stage of informal strategy making based on trial-and-error learning.

Therefore, if learning consists of acquiring knowledge about action-outcome relationships by analyzing disparities between predictions and outcomes (Duncan & Weiss, 1979; Garud & Van De Ven, 1992; Govindarajan & Trimble, 2005a; Van De Ven & Polley, 1992) and experimentation or trial-and-error consists of converting assumptions about unknowns into knowledge at the lowest possible cost (MacMillan & McGrath, 2004), they crafted the EcoSite business model thanks to the trial-and-error learning of the first order, despite the initial reliance on some analytical tools and despite they believe that innovation “*comes from a systematic analysis of the changes in order to convert them in businesses.*” Rival proposition 2 applies to it.

Since different activities offer different learning opportunities, the sequence of activities determines the learning (Woo, Daellenbach, & Nicholls-Nixon, 1994). By conducting the pilot test of the first order a learning sequence was established.

Conducting pilot tests is also a way to educate the customer. They also ceded for free the first dumpers to construction companies both to test them and to show the benefits to the customer and promote the sales of the new product.

EcoSite business creation was a process of “*having one full time person without raising any invoice during several years*” and succeeded thanks to the managers’ determination. They refer to the “*confidence, persistence, and perseverance*” of “*not having halted the business despite having spent three years without any tangible result.*”

In addition to the managers’ determination, another ingredient was the strong desire to do the opposite of the conventional practise. AUSA had to deal against the common belief that it is easier to manage a transfer plant than to implement a new culture in hundreds of works. “*We will implement the culture of classifying at source.*”

7. Formal and informal strategy making are not substitutes for one another.

Rival proposition: Formal and informal strategy making are substitutes for one another.

We can conclude that this theoretical proposition applies to AUSA since, for instance, trial-and-error learning from the pilot tests of EcoSite can not be substituted by further analysis and planning using analytical tools and frameworks, and the emergent strategy of the traditional business of dumpers and forklifts can not be substituted by intended strategy.

8. Trial-and-error learning is planned.

Rival proposition: Trial-and-error learning is not planned.

They conduct pilot tests and follow “*a ‘cooking’ process through which one learns more and defines the business in more detail as the pilot tests develop,*” but it seems that the process is not planned since experimentation is not divided in steps or milestones.

In product development, they do a prior benchmark to compile a twenty-five percent of the total knowledge required to successfully launch a new product. They acquire

another twenty-five percent when the product is already in the market. Therefore, they recognize that they achieve just a fifty percent of the total knowledge required. However, they refer mainly to product launches, not business creation, and they do not mention the existence of stage-gate systems (R. G. Cooper, 1990) or any plan to guide the trial-and-error learning.

9. Good or superior business models deliver a new solution for an unmet market need.

Rival proposition: Business models can be good or superior without delivering a new solution for an unmet market need.

AUSA business models –the manufacture of PTV cars, the manufacture of dumpers and forklifts, EcoSite- have been created to deliver a new solution for an unmet market need. However, they admitted that sometimes they have designed and built new vehicles without any prior market research; they showed them in trade fairs and nobody bought them. Recently, with the multi-service vehicles, instead of going from the market to the idea they have gone from the idea to the market, with the result of having a vehicle with plenty of functionalities but with unfulfilled market needs to be identified through field work. They recognize that with the multi-service product line they have shifted from “vehicles for niche markets in the building construction” to “niche market vehicles with the AUSA product values for a wide range of weakly defined functionalities.” It is a product without a set of specific functionalities clearly defined prior to its market launch, a “product in search of functionalities.” *“The product is useful for everything. It has so many functionalities that finally it is complex to market it for a specific use. In view of that, maybe it is better to offer products to fill specific market needs, or to go from the market to the idea instead of from the idea to the market. Maybe it is better to allocate resources to identify existing unmet needs and offer a solution instead of creating nice products and later try to sell them.”*

In fact, New Concepts disappeared formally as a department because *“the ideas issued were brilliant but unviable”* and it was integrated inside the R&D department –part of the operating organization- *“in an attempt to increase the likelihood of issuing viable ideas.”*

They recognize that one of the weaknesses of a separate innovation organization is the risk to create products difficult to be marketed and have to go from the idea to the market. They emphasize the need to combine technical knowledge and market knowledge.

Although they believe in the statement of delivering a new solution for an unmet market need, they also admit that *“the market is not waiting for the innovations or value creations of companies such us.”*

To them innovation is the only way to find market niches. They *“seek solutions leading to products that do not exist in the market”* and innovation is a *“selective and organized search leading to products that do not exist.”*

In several statements they address the difference between existing but latent needs and non-existing needs, but their statements are confusing. When they refer to seeking functionalities for the multi-service vehicles, we do not know if they mean that the

needs to be fulfilled by those vehicles do exist but are latent and ready to be discovered or have to be created because they do not exist today. The distinction is crucial since they will have to educate the potential customers; and raising latent needs and creating non-existing needs is not the same.

Therefore, despite the episode of the multi-service vehicles, we can conclude that they have delivered new solutions for unmet market needs and that this theoretical proposition applies to AUSA.

10. Good or superior business models create a new market by targeting non-consumers.

Rival proposition: Business models can be good or superior without creating a new market by targeting non-consumers.

AUSA niche strategy relates to new market creation by targeting non-consumers in that this portion of the market did not exist before (at least in the sixties in Spain) and the first AUSA customers were non-consumers. They took advantage of the “holes” in the market left by the big multinational companies, and these “holes” were in fact spaces of non-consumption with potential customers willing to consume due to the automation requirements of a high growth building industry. The customers were non-consumers since those niches were of no interest for the existing big firms unable to supply small quantities of small machines with their complex manufacturing organizations.

AUSA aim to create new markets is also present in the definition of innovation as “*the capacity of influencing the future demand of the market.*”

Therefore, we can conclude that this theoretical proposition applies to AUSA.

11. Radical innovation is dominated by new entrants.

Rival proposition: A radical innovation may be dominated by an incumbent.

AUSA has been a new entrant in the three business models, the PTV cars, the dumpers and forklifts, and EcoSite. We do not know whether they dominated the innovations, despite they dominate their market niche in dumpers and forklifts. On the other hand, it is too early to conclude whether they will dominate their innovation of classifying the construction waste at source.

8.1.2. How the choices were made and the virtuous cycles created

All the choices –except two- were made “*as a highly judgemental activity*” (Fredrickson, 1984, p. 460) of AUSA top management, and the strategy formed by those choices is the result of “*countless strategic decisions that have been made, one at a time, over a period of years*” (Fredrickson, 1984, p. 400); it has formed “*gradually, perhaps unintentionally, as [AUSA top management] makes his decisions one by one*” (Mintzberg, 1978, p. 935).

Appointing an external CEO or managing director is a choice made following a recommendation of 3i when this venture capital firm held a stake on AUSA equity.

Classifying at source in the EcoSite business model was made after the cognitive leap (O'Connor & Rice, 2001) produced observing how the waste is originated and managed in the works in which AUSA machines run and how the transfer plants operate.

Finally, we have not found evidence of the use of analytical tools and frameworks to make the choices.

CHOICE	HOW IT WAS MADE
Target niche markets	
Target the world market	
Be the leader in all the niche markets	
Wide product range	
Launch complementary products	
“Embed” the corporate values in the product	
Rely on standard parts	
Outsource machining of non-standard parts	
Internal R&D	
Integrate suppliers in product development	
Obtain international official approvals	
Obtain patents	
Just in time	
Lean manufacturing	
Assembly line plant layout	
Use corporate values in the relationships with stakeholders	
Product attributes	
Social fund	
Career plans	
Variable compensation	
“Pla Xispa”	
Strong post-sale service	
Emphasis on long-term goals	
ROE strategy (instead of growth strategy)	
Processes of ownership transmission (family protocol)	
Board with external members	
Family members in management positions	
External CEO or managing director	Recommendation of 3i (venture capital firm)
Separated innovation organization	
Formal systems to generate, evaluate, and submit ideas (AUSA Innovation Plan)	
Classify at source (EcoSite business model)	Cognitive leap (O'Connor & Rice, 2001)
Business unit organization (EcoSite business model)	
Appoint an outsider as business unit manager (EcoSite business model)	

8.1.3. What else... do we have learnt from the case study?

The business models are based on clever but simple business ideas which can be expressed in a single sentence. Target niche markets to avoid the competition of the big multinational firms and achieve high margins by targeting the world market and implementing manufacturing methods from the automotive industry; invest the high

margins in R&D to out-compete the Spanish copiers (dumpers business model). Classify the construction waste at source (EcoSite business model).

Opportunity recognition relied on top managers rather than on operational-level managers (Burgelman, 1988).

Prior specific knowledge was a pre-requisite for opportunity discovery (Fiet, 2007; Shane, 2000) in both the PTV cars and the dumpers business models, and was not a pre-requisite in the EcoSite business model since they discovered the opportunity without any prior specific knowledge about either the construction or the environmental industries.

The statement that opportunity discovery depends on an entrepreneur being in the right place at the right time (Fiet & Patel, 2006) applies to both the dumpers business model and the Ecosite business model. In the former case, they were in a German trade fair at the right time to see a first dumper. In the latter, they visited regularly works where AUSA machines run.

One of the missions of the Innovation Management Department according to the AUSA Innovation Plan is to compile product and business ideas from inside and outside the firm, evaluate them, and submit them for approval to the top management. By implementing the plan and creating the department, top managers formalized the role of hunters, active seekers of opportunities, who search through the organization for ideas, asking questions to uncover latent ideas and articulate the opportunity in compelling terms to attract the attention of top management (Leifer, O'Connor, & Rice, 2001; O'Connor & Rice, 2001).

AUSA Innovation Plan formalizes the criteria and steps for evaluation. Criteria are fit with AUSA strategy and values, and enhancement of the current strategy, diversification from the Spanish construction industry and internationalization. The plan addresses the need to evaluate ideas in view of some dimensions (MacMillan & McGrath, 2004) or some criteria –fit, value, rarity, and inimitability- (Fiet & Patel, 2006).

Some authors state that strategic innovations consist of making choices on the product, on the customer, or on the activities performed. Markides (1997) refers to making choices on “the what,” “the who,” and “the how.” Davila, Epstein, & Shelton (2005) refer to making choices on the value proposition, the target customer, and the supply chain. Govindarajan & Trimble (2004; , 2005b) refer to making choices on the value proposition, the customer, and the value chain. AUSA business models consisted of making choices about a product, but the EcoSite business model also involved choices about the supply chain.

Strategic innovations also consist of some “what not to do,” trade-offs about the products not offered, the customers not targeted, or the activities not performed (C. Markides, 1999). Not to launch non-niche products is probably the most important “what not to do” of the dumpers business model.

Rappa (2004) emphasizes the need to determine clearly the mechanism of value generation of the business models. In the EcoSite business model revenues are

generated capturing a portion of the differential cost of disposing the waste mixed or classified.

AUSA has always targeted lead users (von Hippel, 1986), the major construction firms, in the dumpers business model when they ceded to them machines for free and in the EcoSite business model when they used the first orders placed to conduct pilot tests.

Despite the EcoSite business model has been crafted using trial-and-error learning (see theoretical proposition 6), we can conclude that the strategic innovation approach was more systematic than haphazard, to mention the term of Chandler cited in Burgelman (1983b). Systematization comes from the initial reliance on some analytical tools (a business opportunities matrix) and the subsequent efforts to assess the state-of-the-art and conduct pilot tests. The approach for AUSA product innovation is even more systematic.

Analysis and planning at AUSA consists of detailed annual plans and the occasional use of tools to aid the strategic thinking (business opportunities matrix before the EcoSite business model).

AUSA do not use improvisation –convergence in time of design and implementation- (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b), but relies on intuition –operates with choices made without formal analysis- (Crossan & Sorrenti, 1997). As we have concluded in the previous epigraph, AUSA has made their choices gradually, perhaps unintentionally, one by one (Mintzberg, 1978). Strategy making does not follow a rational –comprehensive, exhaustive, and analytical in approach- process (Hart, 1992). It follows a process of effectuation more than a process of causation (Sarasvathy, 2001). However, although they use intuition, they do not proceed without a plan and therefore do not use improvisation.

They do not plan for trial-and-error (C. M. Christensen, Raynor, & Anthony, 2003; Govindarajan & Trimble, 2004; MacMillan & McGrath, 2004; McGrath & MacMillan, 1995), since they do not identify key assumptions, they do not define milestones, and they do not use any sort of stage-gate systems (R. G. Cooper, 1990).

In the EcoSite business model, conducting pilot tests and delaying the recruitment of a unit manager until the commercial launch of the business are probes of the use of real options reasoning based on “*lots of inexpensive failures from which you can learn*” (McGrath, 2000, p. 48). They refer to real options reasoning when they state that the key to project development is “*managing properly the resources,*” which in their case really means to “*stage the financial commitment*” (Gilbert & Bower, 2002) and to “*limit the risk of exploration and allow experimentation and learning*” (Bowman & Hurry, 1993).

AUSA were told “you are crazy” in regards to the EcoSite business model when they decided to shift the efforts towards classifying at source.

We can consider AUSA a learning organization because they have formal systems to create, acquire, and transfer knowledge (Garvin, 1993).

They have absorptive capacity (Cohen & Levinthal, 1990, 1994), capacity to “exploit” outside knowledge, assimilate it, and apply it to commercial ends, as far as the dumpers business model is concerned, accumulated throughout a fifty-year trajectory. However, in regards to the EcoSite business model, they have had to buy absorptive capacity by hiring a unit manager.

Innovation at AUSA is driven by supply-push processes rather than by demand or customer needs (C. Markides, 2006; C. C. Markides & Geroski, 2005).

AUSA do not have to rely on product champions (Chakrabarti, 1974; Howell & Higgins, 1990; Howell, Shea, & Higgins, 1998) since the top management has set up an innovating organization in charge of generating, evaluating, and implementing new product and business ideas. Therefore, there is no need to rely on employees who, going beyond their formal role in the organization, sell the idea to the management, and get their support. On the other hand, top managers do not have to protect ideas from conventional forms of evaluation and organizational resistance (O'Connor & Rice, 2001) since they have promoted the organization that helps originate the ideas and nurture them.

They invite external experts in their creativity sessions and cooperate with universities and research centres. They act in one way or another as external gatekeepers (J. W. Brown & Utterback, 1985; Ettlie & Elsenbach, 2007; Michael L. Tushman, 1977).

They used outside consultation (Utterback, 1971) in the initial stage of EcoSite.

AUSA opened their equity to a venture capital firm which contributed to professionalize the board of directors. It relates with the notion that venture capital offers more than money. They provide critical guidance through their active participation on the board and help recruit managers (Stringer, 2000), which was exactly what happened at AUSA.

AUSA had to educate the customer through “concerts for free” in the first sales of dumpers to major construction firms, in their dealings with potential multi-service vehicles customers, and in their dealings with major construction firms to get a first order to conduct a pilot test of the EcoSite system.

We cannot speak of a dominant design (Anderson & Tushman, 1990; C. M. Christensen, Suárez, & Utterback, 1998; R. M. Henderson & Clark, 1990; Michael L. Tushman & Anderson, 1986; Michael L. Tushman & Murmann, 1998) in the case of the EcoSite business model. Rather, we could speak in the future of an “admired design.”

AUSA products are marginal for the big multinational firms which do not pay attention to them, leaving this portion of the market to AUSA. Also, the statement of Virós that AUSA has focused their products “*on market niches of short runs in which the big competitors do not take part*” relates with the lack of interest of incumbent firms on targeting small and low-profit tiers of the market (Charitou & Markides, 2003; C. M. Christensen, Johnson, & Rigby, 2002).

Following the recommendation by Markides & Charitou (2004) of setting separated business units when conflicts between two business models are serious and markets are

different, AUSA set up a different business unit for EcoSite to allow “forgetting” (Govindarajan & Trimble, 2005a, 2005b).

They hired an outsider (Govindarajan & Trimble, 2005a, 2005b) to manage EcoSite because the new business requires another professional profile and to avoid falling “*in the trap of managing a service business as one of power transmissions.*”

As far as the EcoSite business model is concerned, there was not something similar in the market and therefore AUSA was the first in entering the market.

The dumpers business model was created in response to an industry shock. The EcoSite business model was created to follow the sustainability plan and depart from the Spanish construction industry.

The dumpers business model is vulnerable due to its reliance on the Spanish construction industry.

The Ecosite business model can be replicated on a global basis with local adaptations.

Without being suggested by the researcher, the interviewees mentioned “to be one step ahead of the competition” and “trial-and-error.”

They would not probably support the idea that “*the [only] way to determine if and how to pursue a new business opportunity is to pursue it*” (Lynn, Morone, & Paulson, 1996), since they believe that neither a product nor a business can be commercially launched without prior and in-depth analysis and planning.

They believe that innovation is more than product innovation: “*innovation is not only launching a new machine but also changing the selling systems, the manufacturing systems.* This notion relates to the statement that “*most calls for innovation implicitly focus on the development of new products, but research suggests that innovation in business models can contribute more to shareholder return*” (Harreld, O’Reilly III, & Tushman, 2007, p. 31).

They have institutionalized innovation by separating the innovating organization from the operating organization and by creating organizational units “*totally devoted to creating new ideas for future business. The intention is to reproduce a garage-like atmosphere where people can rapidly and frequently test their ideas. Reservations are heavens for ‘safe learning’*” (Galbraith, 1982, p. 14). One of the premises of the AUSA Innovation Plan is avoid that innovation interferes daily operations, and vice versa. It also relates to the difference between exploitation and exploration to be taken into consideration when two conflicting business models –a mature one and a new one- must coexist within the same organization (Foster & Kaplan, 2001a; Iansiti, McFarlan, & Westerman, 2003; March, 1991; C. Markides, 1998, 2006; Westerman, McFarlan, & Iansiti, 2006). The innovating organization borrows (Govindarajan & Trimble, 2005a, 2005b) information and ideas from the operating organization which has its own systems to gather information and generate ideas. Therefore, “*the innovating side has the mission of keeping the neurons of those in the operating side active enough.*”

“Pla Xispa” aims to create a social environment to intrinsically motivate the employees and make them more creative (Amabile, 1997; Amabile, Conti, Coon, Lazenby, & Herron, 1996). Those authors remark the importance of clearly setting project goals and state that *“the work environment assessed at one point in time can be used to predict the creativity of work outcomes at same later point in time”* (Amabile, Conti, Coon, Lazenby, & Herron, 1996, p. 1179), a similar notion of that of Davila, Epstein, & Shelton (2005, p. 9): *“how you innovate determines what you innovate,”* and similar to the AUSA statement that *“the outcomes of our innovation process are due to our way to organize it.”*

Hornsby, Naffziger, Kuratko, & Montagno (1993, p. 33) refer to management support as *“the extent to which the management structure itself encourages to believe that innovation is, in fact, part of the role set for all members of the organization.”* Dougherty & Hardy (1996, p. 1133) conducted a research on innovation projects in large, mature organizations and found that *“innovation was not the responsibility of the organization as a whole”* and that innovation was not integrated into the firm’s strategy. This contrasts with the AUSA statement that *“innovation is not only innovation department’s responsibility. Everybody has to be involved, everybody has the obligation to contribute with ideas, and everybody who visits clients or attends fairs has to travel with the eyes opened. For innovation to flourish the employees should feel strongly as part of the company. If they are serving in a company they are also responsible for the outcomes. (...). The innovation department is only responsible for implementing the ideas.”* One of the premises of the AUSA Innovation Plan is not to rely solely on one person as far as innovation is concerned. Innovation Management Department is trying to make the operating units responsible for generating “their” product and process ideas, as part of the philosophy of avoiding relying solely on a staff department.

Customer centricity (Selden & MacMillan, 2006) requires creating the products that customer want rather than creating products in search of customers. Sometimes products do not meet the customer’s expectations because R&D is a centralized function run by technicians. Empathic design (Leonard & Rayport, 1997) is based on observation conducted in the customer’s own environment. Sometimes customers do not mention their desires because they assume that can not be fulfilled, or are so accustomed to current conditions that they do not ask for a better solution, or can not formulate opinions because no current product exists in the market. Empathic design can provide information about triggers of use, interactions with the user’s environment –fit with user’s idiosyncratic systems-, user customization, intangible attributes of the product, and unarticulated user needs. The multi-service vehicles product line went from the idea to the market and contradicts the prescriptions of both customer centricity and empathic design.

The competition with the Spanish copiers ends up in competitive convergence, a concept developed by Porter and cited by Magretta (2002). AUSA launches differentiated products, they copy them, differentiation disappears, and prices converge.

Innovation is doing things *“better and different,”* a notion that relates to the definition of disruptive strategic innovations as ways of doing business different from and in conflict with the traditional ways and that imply different trade-offs (Charitou & Markides, 2003).

They recognize that from now on they will have to “*innovate out of our traditional product and sales network. We are going to innovate from scratch.*” They will need new competencies and their current absorptive capacity will not be useful to “*exploit’ outside knowledge.*”

AUSA follows the closed innovation model described by Chesbrough (2003) that leads to a virtuous cycle: companies follow a close innovation model in which they invest in internal R&D more than their competitors to discover the best and the greatest number of ideas to get to market first, reap most of the profits, and reinvest them in conducting more R&D and generate more discoveries, creating a virtuous cycle. The model requires controlling the intellectual property to prevent competitors from exploiting it, which is done by patenting as many parts as possible and designing since the beginning with the aim of getting as many patents as possible.

AUSA Innovation Plan seeks to create a hub (Leifer, O'Connor, & Rice, 2001). They refer to a hub as a repository for cumulative learning and a base for those involved in radical innovation, especially gatherers and members of evaluation and oversight boards. The list of functions a hub must perform match with the list of functions the AUSA Corporate Development Department must perform. Hubs are also the interface between project teams and key internal and external stakeholders, including operating units, R&D, top managers, early-adopter partners, technological partners, et cetera. Without hubs, “*radical innovation will remain a haphazard and ad hoc activity*” (Leifer, O'Connor, & Rice, 2001, p. 102).

Table 8.1. Choices of AUSA compared to big multinational firms, Spanish copiers, and transfer plants (EcoSite business model)

CHOICE	BIG MULTINATIONAL FIRMS	SPANISH COPIERS	TRANSFER PLANTS (ECOSITE BUSINESS MODEL)
Target niche markets	Target mass markets		
Target the world market		Target the domestic market	
Be the leader in all the niche markets			
Wide product range		Narrow product range	
Launch complementary products		No	
“Embed” the corporate values in the product			
Rely on standard parts			
Outsource machining of non-standard parts			
Internal R&D		No	
Integrate suppliers in product development		No	
Obtain international official approvals		No	
Obtain patents		No	
Just in time			
Lean manufacturing			
Assembly line plant layout			
Use corporate values in the relationships with stakeholders			
Product attributes			
Social fund			
Career plans			
Variable compensation			
“Pla Xispa”			
Strong post-sale service		No	
Emphasis on long-term goals	Emphasis on short-term goals	Emphasis on short-term goals	
ROE strategy (instead of growth strategy)			
Processes of ownership transmission (family protocol)			

CHOICE	BIG MULTINATIONAL FIRMS	SPANISH COPIERS	TRANSFER PLANTS (ECOSITE BUSINESS MODEL)
Board with external members			
Family members in management positions			
External CEO or managing director			
Separated innovation organization		No	
Formal systems to generate, evaluate, and submit ideas (AUSA Innovation Plan)		No	
Classify at source (EcoSite business model)			Dispose mixed
Business unit organization (EcoSite business model)			
Appoint an outsider as business unit manager (EcoSite business model)			

8.2. ATRÁPALO.COM CASE STUDY REPORT

8.2.1. Analysis of the data in view of the theoretical propositions

1. Opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems.

Rival proposition: Opportunity recognition relies on firm's routine practises and procedures.

Opportunity recognition as far as the urban leisure business model is concerned relied clearly on the personal intuition and individual initiative and capacity of the founders of Atrápalo.com. *"We acknowledged the fact that from Tuesday to Thursday theatres were empty."* The very origin of the idea has to do with a project to promote the sale of unsold seats in cinemas on which one of the founders was working in a previous job in an Internet company. The project was halted and they kept in mind the idea of selling unsold tickets. It was not a copied idea since there was not a previous experience at that time. In fact, the business model of transacting with exceeding products –unsold theatre tickets- was derived using the analogy of a common practise in the travel industry in which prices vary with demand and everyone in a flight travels at a different price depending on the time everyone has reserved the flight.

We have not found evidence of the use of formal systems and routine practises and procedures to recognize opportunities.

We can conclude that opportunity recognition relied on personal intuition and individual initiative and capacity. Therefore, this theoretical proposition applies to Atrápalo.com.

2. Opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge.

Rival proposition: Systematic search for opportunities is not possible and opportunities are discovered without actively searching for them.

The founders' prior knowledge played a crucial role in the recognition of the business opportunity. But their prior knowledge has to do with the Internet businesses, not with the leisure industry (*"we founded Atrápalo.com without knowing what a travel agency is"*). They were working for Internet companies or in Internet projects of traditional firms.

Their professional interests and their prior knowledge are the origin of one of the choices, to be a hundred percent online. *"We decided to be only online for two reasons: the need to focus ourselves in something and the founder's vocation which is Internet businesses. What we like is Internet businesses. We founded Atrápalo.com without knowing what a travel agency is, and without the proper license. We do not have vocation of travel agency. (...). We also could compete with the large offline travel agencies opening a call centre, but we have preferred to remain as a pure Internet business."*

They systematically but informally searched for business opportunities to be developed through an Internet portal. They made a list of potential Internet businesses with selling

unsold theatre tickets as a first option and some other ideas. They also reviewed business plans from other online businesses. The search was constrained to their Internet knowledge, since they lack business experience for most of the ideas of the list.

They had not recognized the opportunity without a systematic search within their knowledge domain, the Internet. Therefore, systematic and constrained search was not only possible but also necessary, and we can conclude that this theoretical proposition applies to Atrápalo.com.

On the other hand, the analogy used to derive the business model of transacting with exceeding products – the common practise in the travel industry of making prices to vary in function of the demand- is general knowledge in the sense of Fiet (2007), and can be possessed by people not involved in the travel industry. In any case, they possessed this knowledge despite none of the founders had expertise in the travel industry.

3. The greater the barriers to imitation created by causal ambiguity, the greater the sustained competitive advantage and, hence, the greater the goodness or superiority of a business model.

Causal ambiguity occurs when competitors do not understand the causal relationships between actions and outcomes (Reed & DeFillippi, 1990).

Offering the products on the website in a novel and attractive way and including the past users experience was a source of causal ambiguity. The competitors did not know what actions to take to achieve Atrápalo.com outcomes.

The origin of the causal ambiguity *“resides on the way we approached the leisure industry.”* Instead of replicating an offline travel agency into the Internet, *“we acknowledged the fact that from Tuesday to Thursday theatres were empty, and this notion has been transversal in the sense that it was extended to flights, travels, and hotels. We always talk about unsold inventories,”* which is the philosophy of selling *“leisure at the best price,”* which in turn is a differentiator from other online travel agencies.

When there is no differentiation at all (i.e. flights), the purchase experience is a differentiator (*“the product is the same but the purchase experience is funny”*) and another source of causal ambiguity.

Convincing the first theatres was a difficult task because there was not a similar previous experience at that time. Nobody understood the underlying logic of the business and finally *“we had to explain how prices of hotels and flights vary in regards to the demand and that everyone in a flight travels at a different price.”* The logic was not understood by the theatres and probably was not understood initially by the potential competitors.

If offline travel agencies decided to launch an online branch they would face barriers of imitation created by causal ambiguity since they do not possess the knowledge and years of experience Atrápalo.com and the other online travel agencies have. They have a *“years-in-advance advantage.”* There is an advantage over the competitors who must

start from scratch since development requires skills, know-how, and knowledge built up over time (McGrath, 2000). On the other hand, offline travel agencies are perceived as more expensive than their Internet counterparts since there is the belief that buying through the Internet is cheaper. *“We expect that the customer perceive the online prices of the offline travel agencies to be the same than in their physical stores, higher than ours,”* and such perceptions are difficult to reverse.

Another source of causal ambiguity is the ability to choose *“the right project to develop”* in a business in which competition is dominated by a continuous race of innovation and copy since the novelties are immediately or very soon matched by the competitors.

4. The more clear and explicit the choices of a business model, and the more differing from those of the competitors; and the more strengthening the virtuous cycles, the greater the goodness or superiority of the business model.

A probe that most of the choices are clear and explicit is their firmness or ability to resist “siren songs.” They just offer services produced by others and do not have plans to vertically integrate the offerings from creation to sale since *“production is another business. (...). Focusing on a single and clear business model is paramount, and our business model is one of distribution. We are good at distribution, not at generation.”* They just offer the products that are for sale and show on the website just the information needed to order because they are a transactional portal and not an informational portal. They refused to target corporate customers since it had been a departure from “leisure at the best price” and had constituted another business. They even considered using a second brand and website to target corporate customers. Selling products at full price would also have been a departure from the price reduction philosophy of “leisure at the best price” consisting of showing the original price crossed out and remarking the reduced price. Paying in the theatre, restaurant, or hotel, instead of paying through the website is also a differentiator; the customer feels more confident. Finally, opening a call centre or physical offices would have been a departure from being a hundred percent online and do all the transactions through the portal (*“we are an Internet business”*), despite they have a back-office with service people to support the sale of complex and expensive products.

Another “siren song” would have been to accommodate other projects within Atrápalo.com, but they believe that they should be developed out of Atrápalo.com because *“Atrápalo.com has its own trajectory and development. Atrápalo.com has a focus and we cannot change it.”* Even they have considered the possibility to use other brands and websites for any different positioning.

Therefore, Atrápalo.com choices are firmly kept and the company refuses any departure from the business model. However, they would accept to depart from the business model but with a strategy to protect the core business.

If disruptive strategic innovations are ways of doing business different from and in conflict with the traditional ways, and the choices or trade-offs are different in the two ways of doing business (Charitou & Markides, 2003), we can conclude that the extent to which the choices of a business model are different from the choices of rival business

models could explain part of the success of the business models and, hence, part of their goodness or superiority. Therefore, we need to assess how different the choices of Atrápalo.com are from those of their competitors.

In table 8.2. **Choices of Atrápalo.com compared to ticketing portals, online travel agencies, and offline travel agencies** Atrápalo.com choices are listed in the left column. We have identified three types of competitors. We indicate in the corresponding cell the counterpart of each Atrápalo.com choice for each type of competition.

Several choices differentiate the Atrápalo.com urban leisure business model from the business model of the ticketing portals: Atrápalo.com transact with exceeding products, include assessments, opinions, and suggestions in the offerings, offer discounts, operate only through the Internet, have a back-office with service people, only reserve, and do not charge any fee to the buyer, while the choices of the ticketing portals are different and in most of the cases the opposite: they transact with regular products, do not include comments to the offerings, do not offer discounts, operate through the Internet but also by telephone and taking advantage of a network of cashiers, do not have a back-office with service people, sell and collect, and charge a fee to the buyer. Therefore, the business models are different with opposite choices. However, since they offer two distinct products –exceeding and regular- and maybe target two different market segments or the same customers but in different settings, the two business models are not conflicting.

The urban leisure business model differentiates Atrápalo.com from the other online travel agencies and allows them to complement flights, hotels, and car rentals with other services such as events and restaurants. Atrápalo.com can “*offer something others cannot, such as a flight, a hotel room, a table in a restaurant, and a ticket for a show, all for the same day and in the same portal.*” That is the philosophy of “the cart,” an application that suggests additional services related to the services already ordered. Urban leisure also originated brand recognition through word-of-mouth and was a “traffic builder” during the first years when they had no budget for advertising and faced the competition of other online travel agencies with huge budgets.

Atrápalo.com holiday leisure business model differs from the online travel agencies business model in some choices: Atrápalo.com transact with exceeding products, include assessments, opinions, and suggestions in the offerings, offer discounts, target end users, only reserve (hotels), and deal with few tour-operators, while the choices of the online travel agencies are different and in most of the cases the opposite: they transact with regular products, do not attach comments to the offerings, do not offer discounts on a regular basis, target both end users and corporate customers, sell and collect in hotel reservation, and deal with many tour-operators. In addition, the distribution of the sales among products is different. Many of the online travel agencies rely heavily on flights compared to Atrápalo.com. However, a differing choice which is critical to explain the success of Atrápalo.com in the “*continuous race of innovation and copy*” is the local versus international IS development. Atrápalo.com IS are in-house but locally developed while the development of the competitors’ is centralized in their respective headquarters, and the time reaction to do any change to accommodate innovations is longer. Therefore, the business models are not only different with

opposite choices but also conflicting since they target the same market segments and customers, despite they offer different products (exceeding-regular).

In comparing Atrápalo.com holiday leisure business model with the offline travel agencies business model, we can identify some opposite choices: Atrápalo.com transact with exceeding products, do aggressive online marketing campaigns, complement the offerings with comments by past users, offer discounts, target end users, only reserve (hotels), and deal with few tour-operators, while the offline travel agencies transact with regular products, do not reach “*the Outlook in-tray*” of their customers, cannot support their sales with past users experiences, sell at full price, target both end users and corporate customers, have call centres and physical offices, sell and collect in hotel reservation, and deal with many tour-operators. However, the most critical differing choice is “a hundred percent online” versus “call centres and physical offices,” a choice that determines a lean or a heavy overhead and therefore allows Atrápalo.com and the other online travel agencies to price more aggressively in comparable offerings. Therefore, the business models are not only different with opposite choices but also conflicting since the online travel agencies business model possess ways to weaken the virtues of the offline travel agencies (Casadesus-Masanell, 2004). The extent of the conflict in the future will depend on how different the targeted market segments and customer profiles are. While the offline travel agencies are convenient for those who are afraid of transacting through the Internet and prefer a personal dealing, the online travel agencies are preferable for those who are accustomed of transacting through the Internet and willing to skip the disadvantages of a physical office (time, et cetera). The shift of customers from the offline to the online business models will determine the final size of both market segments and the final market share of both business models.

Finally, we can conclude that Atrápalo.com business model is good since it allows the firm to attain its goals (Casadesus-Masanell & Ricart, 2007). Atrápalo.com choices deliver consequences that move the firm towards achieving its objectives (alignment to goal), choices complement each other well (reinforcement), there exist several virtuous cycles closely related to the goals and that imply growth (virtuousness), and the business model is able to sustain its effectiveness over time (robustness).

As we have seen in epigraph **7.2.5. Atrápalo.com business model representation**, the major part of Atrápalo.com choices delivers the consequences of low fixed costs, higher margins, and sales volume; and these consequences enable a high profitability, the objective of the firm (alignment to goal). A hundred percent online and assessments, opinions, and suggestions are choices that complement each other well (reinforcement): transacting through a website allows Atrápalo.com to include opinions of past users, a practice which increases customer’s confidence on the platform increasing the sales and renders the support of service staff unnecessary and, hence, reinforces the choice of being a hundred percent online. We have identified up to five virtuous cycles related to the goal of high profitability through a growth in sales (virtuousness). Atrápalo.com brand image ensures the sustainability of the business model over time (robustness).

5. The degree of formality depends on the stage of evolution, on the settings, or on the nature of innovation.

Rival proposition: The degree of formality does not depend on the stage of evolution, on the settings, or on the nature of innovation.

Settings refer to either the need to exploit or the need to explore (March, 1991), either refine and improve the prevailing strategy or create a new strategy (Regnér, 2003), either being in a mature environment or in an uncertain environment (S. L. Brown & Eisenhardt, 1995), either in a stable and predictable environment having to defend a position or in a unstable and unpredictable environment having to create a position (Hart, 1992), either dealing with a predictable future or dealing with an unpredictable future, or in early stages of a new business (Sarasvathy, 2001). Nature of innovation refers to either sustaining or disruptive innovations (Bower & Christensen, 1995; C. M. Christensen, Johnson, & Rigby, 2002).

At Atrápalo.com the innovation process is perceived as one of trial-and-error by the management.

In a business like the one of Atrápalo.com, the degree of formality does not depend on the stage of evolution because the business model is being crafted continuously. The degree of formality is quite similar in all the stages of development: when the founders wrote the original business plan, when they held the first dealings with potential suppliers, when they launch new services or novel initiatives, et cetera. As remarked in the analysis of the next proposition, the degree of formality depends clearly on the settings. They are in a fast changing industry (Eisenhardt, 1989) and conventional planning does not make sense. Despite they refer to product innovation rather than business innovation, Eisenhardt & Tabrizi (1995, p. 106) state that: *“extensive planning simply wastes time, especially in high-velocity industries. (...) It may be faster to probe, test, iterate, and experience than to plan.”* Finally, the degree of formality does not depend on the nature of innovation since the “haphazard” strategy making of Atrápalo.com applies to both product and business innovations, and both incremental and disruptive innovations.

The industry is changing fast, development costs of product innovations are low, business experiments are not costly, are fast to be implemented, and can be reversed in case of a failure, substantial changes in projects are possible and inexpensive, and projects can be immediately cancelled. Industry characteristics could also be considered part of the settings, and therefore would determine an informal type of innovation.

Some statements prove a lack of formality: *“we do not have exactly quantified the amount of the cross-sale, but the theatres product line contributes a lot with brand recognition”* or *“we do not have data to assert that we have created market and that thanks to Atrápalo.com there is now more people going to the theatre or the restaurant or otherwise we have redistributed the existing clients throughout the week due to the discounts”* or *“we do not have data, but we are sure that the clients read them [assessments, opinions, and suggestions] before choosing any service.”* In brief, they do not have data to support their decisions and they make changes without measuring the effects of those changes.

They recognize the informal character of their strategy making: *“things change so quickly in this industry that probably we will have to change our business model. It will be different in five years. And we will do it without strategic thinking or formal procedures. We are good at extracting trends from data we have access to and quickly react.”*

The product managers in charge of identifying and including new offerings on the website do not follow a systematic procedure in their search.

From the case study we can conclude that innovation at Atrápalo.com is conducted with a low degree of formality. They use a “haphazard” approach due their settings. Therefore, the degree of formality depends clearly on the settings, but it will be the same in all the stages of evolution and in all types of innovation, product or business, incremental or disruptive.

We have no evidence of the use of analytical tools or frameworks.

6. Good or superior business models are developed through analysis and planning using analytical tools and frameworks and refined through the learning from trial-and-error.

Rival proposition 1: Good or superior business models are developed solely through analysis and planning using analytical tools and frameworks.

Rival proposition 2: Good or superior business models are crafted using the learning from trial-and-error.

When the founders wrote the original business plan they had the opportunity to review business plans from other online businesses, like a job portal through which firms offer job positions and job applicants send their curriculum vitas. In those business models revenues were generated via charging for advertisements which was a market trend then. The strategy was to offer services for free to get a critical mass of users, block the market, and start charging. In the original business plan revenues were expected to be generated through charging for exhibiting advertisements on the website. “*Suppliers were going to pay a lot for getting their offer remarked in our website.*”

However, “*we could not sell any banner. This part of the business plan fell off very soon,*” and they found out after some conversations with potential theatres that they had to be a transactional portal and charge a commission on the transaction price. “*We did not change the business idea, leisure at the best price, sale of unsold capacity through the Internet. We just changed the way of getting the cash.*” The business plan was modified before the commercial launch of the portal.

They recognize that the business described in the plan is completely different from today’s Atrápalo.com. They never have revisited the original business plan nor assessed to what extent they have met the goals stated in the plan. During the research, a copy of the original business plan was asked for to all the interviewees and none of them could find their copy. “I have it at home but I do not know where” was the common answer.

The rules of the game with theatres were not stated in the business plan. Rather, they were probably shaped in the numerous dealings with potential theatres. They recognize that the initial success of the urban leisure business model, which was spread through word-of-mouth within the theatre industry, was due to giving the entire control to the supplier. They decide everything: the price, the discount, the number of tickets for sale in the portal, the dates, et cetera. They also collect –tickets are paid in the theatre- and are not subject to any kind of exclusivity in contrast to the conditions imposed by the ticketing portals. Converting the cost for the theatre in a variable cost (“*they had*

nothing to lose”) was not the result of any analysis; it was the result of explaining the business model to potential theatres.

It seems that the original business plan was used only to present the business to potential investors and therefore the business model was crafted using the learning from trial-and-error.

Strategy making at Atrápalo.com is so informal that the founders did not remember how they decided to include assessments, opinions, and suggestions in the portal, and they gave to the interviewer contrasting versions about the origin of the idea.

Further strategic planning is limited to informal annual plans showing the expected sales figures and growths by product line with a list of actions to achieve the goals. They set growth goals higher than the market growth to gain market share. The market information about Internet growth in users and shoppers is supplied by consulting firms. Their strategic thinking is focused on the question of *“how much are we able to grow in excess of the market growth?”* The usual answer is: *“we set percents and do our best to reach them.”* The only outcome of the process is to know *“more or less the priorities and needs.”* They also hold sessions of strategic thinking with professors from a business school.

They recognize that they have achieved the annual goals *“as a result of the market growth rather than as a result of a detailed plan.”*

In regards to annual plans, *“it would be interesting to have them formalized.”* In regards to strategy making, *“we would need a global strategy for the entire business as well as product strategies.”* In regards to planning, *“doing a business plan before creating a new business and planning every year is useful as a reflection exercise to put ideas in order, think on the long term, and set priorities. You may change them later, but you have a framework, a reference point. Strategy and planning obliges oneself to answer questions such as: where the growth will come from, what factors do we control and what are out of our control, which business line should we develop, where will the most interesting business reside...”* However, despite their defence of planning, there is evidence that they do not rely on it to make their strategy.

Two of the interviewees referred to trial-and-error (*“I prefer trial-and-error”* and *“we are more of ‘trial-and-error’* were the two statements) separately and despite the interviewer did not suggest the term. Their reasoning to rely heavily on trial-and-error is: *“we are growing fast and without any systematic and planned approach. And is also the result of being in a fast changing industry. We can not plan the next two years. Nobody knows what will happen in two years. It does not make sense to plan in the traditional way. It is better to quickly adapt to fast changes, decide using the common sense, and even do errors. That has become common practise in our industry.”*

Therefore, if learning consists of acquiring knowledge about action-outcome relationships by analyzing disparities between predictions and outcomes (Duncan & Weiss, 1979; Garud & Van De Ven, 1992; Govindarajan & Trimble, 2005a; Van De Ven & Polley, 1992) and experimentation or trial-and-error consists of converting assumptions about unknowns into knowledge at the lowest possible cost (MacMillan & McGrath, 2004), we can conclude that Atrápalo.com business model was crafted using

the learning from trial-and-error (rival proposition 2), despite the initial efforts on having a guiding business plan.

7. Formal and informal strategy making are not substitutes for one another.

Rival proposition: Formal and informal strategy making are substitutes for one another.

We can conclude that this theoretical proposition applies to Atrápalo.com since, for instance, trial-and-error learning from the dealings with potential theatres can not be substituted by further analysis and planning using analytical tools and frameworks. The launch of any initiative (like “The cart” o “La Lanzadera) also requires a process of experimentation which can not be replaced by analysis and planning.

8. Trial-and-error learning is planned.

Rival proposition: Trial-and-error learning is not planned.

We can conclude that this theoretical proposition does not apply to Atrápalo.com (the rival proposition does apply), because the process of experimentation is not divided in steps or milestones, effects of possible changes are not measured, et cetera. *“We are growing fast and without any systematic and planned approach.”*

9. Good or superior business models deliver a new solution for an unmet market need.

Rival proposition: Business models can be good or superior without delivering a new solution for an unmet market need.

They consider themselves a “leisure arranger,” and their business is one of “suggesting,” since they target customers that do not know what to do before accessing the website (*“I have time, please recommend something to me... not expensive”*) instead of targeting buyers of tickets for a particular event. Customers who visit the portal without any prior idea are their most preferred customers because they use to buy “compulsively.” By contrast, the ticketing portals dispatch tickets to people who knew previously what they wanted to do. On the other hand, they fulfil the market need of occupying from Tuesday to Thursday theatres and restaurants dimensioned for the weekend.

Therefore, they deliver a new solution for unmet market needs and we can conclude that this theoretical proposition applies to Atrápalo.com as far as the urban leisure business model is concerned.

10. Good or superior business models create a new market by targeting non-consumers.

Rival proposition: Business models can be good or superior without creating a new market by targeting non-consumers.

Customers who lacked the money to go to the theatre and who buy tickets with a price reduction for Tuesday to Thursday were non-consumers. Customers open to buy any type of service because they access the website without any previous idea were probably non-consumers.

In fact, they have created a market for unsold theatre tickets or unoccupied restaurant seats. The underlying commercial argument is a probe that there existed both a demand and a supply at the inception of the business model: “*give me the unsold tickets, and we will offer them with a discount through the Internet to the young people that are not your weekend clients of full price tickets who will not change their habits to benefit from the discount.*”

They have not focused on the existing market (weekend sessions) and the existing customers (weekend audience). Instead, they have focused on new markets (theatres and restaurants from Tuesday to Thursday) and non-consumers (young people with budget limitations). As said in the previous proposition, they have fulfilled the needs of both the theatres and restaurants on one hand and the needs of a segment of non-consumers on the other. Before Atrápalo.com there were two distinct jobs to get done (C. M. Christensen, Raynor, & Anthony, 2003): increase the theatres’ occupation from Tuesday to Thursday and get cheap theatre tickets.

By contrast, they have not created market as far as holiday leisure is concerned. There has been a market increase due to the democratization of travelling provoked by the low cost philosophy and a shift from offline to online travel agencies. The process has to do more with a low-end disruptive innovation than with a new-market disruptive innovation (C. M. Christensen, Anthony, & Roth, 2004).

Therefore, we can conclude that this theoretical proposition applies to Atrápalo.com as far as the urban leisure business model is concerned.

11. Radical innovation is dominated by new entrants.

Rival proposition: A radical innovation may be dominated by an incumbent.

Atrápalo.com –urban leisure- has been a new entrant in the market and has dominated the innovation that constitutes their business model. They are among the new entrants in the Spanish online travel agencies industry but have not dominated the online travel agencies innovation.

Therefore, we can conclude that this theoretical proposition applies to Atrápalo.com as far as the urban leisure business model is concerned.

8.2.2. How the choices were made and the virtuous cycles created

The major part of Atrápalo.com choices were probably made at the time of writing the original business plan, particularly those with the indication “business plan” in the above table. These choices were the result of “*a highly judgmental activity*” by the founders of the company in which “*analysis [was] replaced by informal discussion, and search [was] heavily biased by experience and [functional] orientation*” (Fredrickson, 1984, p. 460). Rather than identifying and setting goals before analysing alternatives (Fredrickson & Mitchell, 1984), and using a rational process (Hart, 1992), the Atrápalo.com founders chose between many possible effects using a particular set of means (Sarasvathy, 2001). For instance, they sought the effect of occupying the theatres from Tuesday to Thursday by: (i) transacting with unsold products rather than with

regular products; (ii) charging the theatre a commission on the transaction price rather than a fixed cost for advertising; (iii) offering discounts on the original full price rather than selling at full price; (iv) reserving rather than selling and collecting; (v) doing innovative online marketing campaigns; (v) not charging to the customer rather than charging a fee to the buyer; and later (vi) showing in the portal assessments, opinions, and suggestions by past users.

Other choices were the result of a lack of resources (a hundred percent online, open source technologies), or the unavailability of a standard IS (tailor-made IS), or a continued disappointing experience (in-house IS), or the founders' vocation (a hundred percent online), or a set of coincidences (assessments, opinions, and suggestions). In any case, none of them were made as a result of a rational process, a process comprehensive, exhaustive, and analytical in approach (Hart, 1992) with the aim of achieving a predetermined set of goals (Fredrickson & Mitchell, 1984).

Finally, we have not found evidence of the use of analytical tools and frameworks to make the choices.

CHOICE	HOW IT WAS MADE
Transactional portal	Business plan
Transact with other's products	Business plan
Transact with unsold products	Business plan
Commission on the transaction price	First dealings with theatres and restaurants
Online marketing campaigns	Business plan
Assessments, opinions, and suggestions	American website Friends' suggestion Feedback from emails
Price with discounts	Business plan
Target end users	Business plan
A hundred percent online	Internet founders' vocation Limited resources
Back-office with service staff	
In-house IS	Faulty service by IS outsourcers
Tailor-made IS	No standard available
Open source technologies	Limited resources
Only reserve (theatres, restaurants, and hotels)	Business plan
Deal with few tour-operators	
No charge to customer (urban leisure business model)	Business plan
Open to venture capital	
Hold the majority of the ownership	

8.2.3. What else... do we have learnt from the case study?

The business models are based on clever but simple business ideas which can be expressed in a single sentence: transact with exceeding products through the Internet in exchange of a commission on the transaction price; display the offerings in an attractive way.

Opportunity recognition relied on top managers rather than on operational-level managers (Burgelman, 1988).

Prior specific knowledge in the Internet businesses and not in the travel industry was a pre-requisite for opportunity discovery (Fiet, 2007; Shane, 2000).

They evaluate new business ideas in view of some dimensions (MacMillan & McGrath, 2004) or some criteria –fit, value, rarity, and inimitability- (Fiet & Patel, 2006), and those that may mean another positioning are to be launched using other brands and websites.

Some authors state that strategic innovations consist of making choices on the product, on the customer, or on the activities performed. Markides (1997) refers to making choices on “the what,” “the who,” and “the how.” Davila, Epstein, & Shelton (2005) refer to making choices on the value proposition, the target customer, and the supply chain. Govindarajan & Trimble (2004; , 2005b) refer to making choices on the value proposition, the customer, and the value chain. Strategic innovation in the urban leisure business model consisted of making choices about activities and a customer segment, and in the holiday business model just about activities.

Strategic innovations also consist of some “what not to do,” trade-offs about the products not offered, the customers not targeted, or the activities not performed (C. Markides, 1999). Not to produce services, not to be an informational portal, and not to target corporate customers are examples of important “what not to do.”

Charge a commission on the transaction price instead of a fixed cost for advertising was a price innovation (W. C. Kim & R. e. Mauborgne, 2005).

Rappa (2004) emphasizes the need to determine clearly the mechanism of value generation of the business models; in the case of Atrápalo.com, the mechanism is a commission on the transaction price in both the urban and holiday leisure business models.

The lead users (von Hippel, 1986) targeted by Atrápalo.com were those willing to transact through the Internet and therefore not being afraid of buying –and paying- products and services online. Paying online costly items as a holiday pack when the business was commercially launched required a lot of confidence on the portal and on the system as well. Assessments, opinions, and suggestions probably played a great role in giving this confidence to novel users. In any case, not all the users were equally prepared for the “online leap.”

Despite the initial efforts on having a guiding business plan we can conclude that Atrápalo.com business model was crafted using the learning from trial-and-error (rival proposition 2) and that the strategic innovation approach was haphazard, to mention the term of Chandler cited in Burgelman (1983b).

Analysis and planning at Atrápalo.com consists of informal annual plans. They wrote a business plan before commercially launching the portal, but it was used only to present the business to potential investors.

Atrápalo.com use improvisation –convergence in time of design and implementation- (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b), and relies on

intuition –operates with choices made without formal analysis- (Crossan & Sorrenti, 1997).

They do not plan for trial-and-error (C. M. Christensen, Raynor, & Anthony, 2003; Govindarajan & Trimble, 2004; MacMillan & McGrath, 2004; McGrath & MacMillan, 1995), since they neither identify key assumptions nor define milestones. Due to the low level of investment required they do not use the real options reasoning (Bowman & Hurry, 1993; Gilbert & Bower, 2002; McGrath, 2000). They do not use tools like stage-gate systems (R. G. Cooper, 1990) or similar to guide the process of experimentation.

They were told “you are crazy” when they “sold” the business to venture capitalists before commercially launching the portal.

We cannot consider Atrápalo.com a learning organization because they have not formal systems to create, acquire, and transfer knowledge (Garvin, 1993).

The founders had absorptive capacity (Cohen & Levinthal, 1990, 1994), capacity to “exploit” outside knowledge, assimilate it, and apply it to commercial ends, as far as the Internet businesses is concerned, but they lack absorptive capacity in the travel industry.

Innovation at Atrápalo.com is driven by supply-push processes rather than by demand or customer needs (C. Markides, 2006; C. C. Markides & Geroski, 2005).

Atrápalo.com do not have to rely on product champions (Chakrabarti, 1974; Howell & Higgins, 1990; Howell, Shea, & Higgins, 1998) since innovation is driven by the same top managers.

They have built a bridge with external market and technical information through the venture capital firm which acts in one way or another as an external gatekeeper (J. W. Brown & Utterback, 1985; Ettlie & Elsenbach, 2007; Michael L. Tushman, 1977).

The use of outside consultation (Utterback, 1971) is limited to sessions of strategic thinking by professors of a business school.

Atrápalo.com opened their equity to a venture capital firm which is contributing with new ideas, information about trends, and contacts and network. It relates with the notion that innovators that work with venture capital bring their products to market faster. Venture capital offers more than money (Stringer, 2000).

Atrápalo.com had to educate the theatres and restaurants through “concerts for free” to convince them of the benefits of offering free seats and tables with a price reduction in exchange of a variable cost.

We cannot speak of a dominant design (Anderson & Tushman, 1990; C. M. Christensen, Suárez, & Utterback, 1998; R. M. Henderson & Clark, 1990; Michael L. Tushman & Anderson, 1986; Michael L. Tushman & Murmann, 1998) in the case of the urban leisure business model. Rather, we could speak in the future of an “admired design.”

From the four entry strategies of McGrath and MacMillan (2000), as far as urban leisure is concerned, Atrápalo.com chose the so-called onslaught, an aggressive entry to capture the entire arena. Compared to the holiday business model, the urban leisure business model is too small in terms of sales and margin to attract the attention of the large competitors (Charitou & Markides, 2003; C. M. Christensen, Johnson, & Rigby, 2002) and nobody has copied it. However, they have tried to attract as many theatres and restaurants as possible soon and quickly to corner the market and prevent the entry of newcomers.

Following the recommendation by Markides and Charitou (2004) of setting separated business units when conflicts between two business models are serious and markets are different, Atrápalo.com would launch conflicting business ideas using other brands and websites.

As far as the urban leisure business model is concerned, there was not something similar in the market and therefore Atrápalo.com was the first in entering the market.

The entire business model is vulnerable due to its reliance on flights. However, to some competitors flights account for an eighty percent of their business.

The holiday leisure business model can be replicated on a global basis with local adaptations.

Without being suggested by the researcher, the interviewees mentioned “to be one step ahead of the competition” and “trial-and-error.”

Two concepts, focus and differentiation, were repeated by the interviewees without being suggested by the researcher. As far as focus is concerned, we have compiled up to five statements with the term: “*focusing on a single and clear business model is paramount,*” “*we decided to focus our business only in transactions,*” “*... and also focus and alignment towards value generation,*” “*Atrápalo.com has a focus and we can not change it,*” and “*... the need to focus ourselves in something.*” Differentiation referred to their efforts to differentiate undifferentiated products by giving “details” or “pluses” to the customer or by innovating in the purchase experience.

The Atrápalo.com focus statements relate to Drucker’s (2002, p. 102) statement that “*to be effective, as innovation (...) has to be focused. It should do one thing; otherwise it confuses people.*”

They would probably support the idea that “*the [only] way to determine if and how to pursue a new business opportunity is to pursue it*” (Lynn, Morone, & Paulson, 1996), since they believe in haphazard, non-systematic approaches, and pursuing a new business opportunity through the Internet is not costly. Therefore, they may be mentally open to launch new businesses without prior and in-depth analysis and planning.

Established competitors responded to Atrápalo.com innovation, as far as holiday leisure is concerned, by adopting the innovation and playing both games at once (Charitou & Markides, 2003). Some of them have set up online branches of their offline travel agencies. Their motivation or commitment to respond is high but their ability or capacity to respond is low (Charitou & Markides, 2003; McGrath & MacMillan, 2000).

However, if the offline travel agencies decided to launch online branches, they would have to manage two conflicting business models within the same organization.

They “listen” to the market and ask the customers what they would like to find in the portal, but they are sceptical about their ideas and proposals. When they survey their customer base they compile a lot of commercially unviable proposals or niche ideas for a limited number of users and “*Internet is still a channel for mass products.*” They rely on products offered by suppliers and have product managers in charge of the new offerings, despite “*they do not follow a systematic procedure.*”

They target the mass market (“*it was not time to segment and micro-segment the market but to grow and gain market share*”) and focus on the commonalities in the features that customers value, instead of focusing on the differences among customers (Kim & Mauborgne, 1997). Atrápalo.com prefer to focus on the commonalities of customers instead of segmenting the market to accommodate buyer differences by tailoring their offerings to better meet customer preferences, a process that leads to small target markets (W. C. Kim & R. Mauborgne, 2005).

They admit that the initial lack of resources helped them to quickly shape the business model. “*Lack of resources has been one of the key success factors of our company*” since if they had raised more money “*we had lost more money because we had followed the .com euphoria of that moment. The industry was immature at that time. A launch with a lack of resources and a poor advertising made us to reflect about any expenditure several times before doing it and drove us to better decisions.*” It relates to the statement that limited resources force managers to uncover and clarify a viable strategy quickly and contradicts the misconception that deep corporate pockets facilitate the growth of new businesses (C. M. Christensen, 2002; C. M. Christensen, Johnson, & Rigby, 2002).

Another misconception pointed out by Christensen (2002) states that innovation entails large losses for sustained periods, which is contradicted by the statement that “*managers must be patient for growth but impatient for profitability* (C. M. Christensen, Johnson, & Rigby, 2002, p. 6). In fact, Atrápalo.com, despite doubling every year in sales, has been profitable since the second year.

The urban leisure business model is a good example of the so-called two-sided markets (Eisenmann, Parker, & Alstyne, 2006), platforms with infrastructure and rules that tie together two groups of users in a network, the end users who reserve theatre tickets or restaurant tables and the theatres and restaurants themselves. The platform incurs costs in serving both groups. Theatres and restaurants are the “money side” because Atrápalo.com just collects revenues from them; the end users are the “subsidy side” because they are not charged any fee by Atrápalo.com. As those authors state, the distribution is due to the fact that the end users are the side more price sensitive and theatres and restaurants are the side whose demand increases more in response to the other side’s growth.

Table 8.2. Choices of Atrápalo.com compared to ticketing portals, online travel agencies, and offline travel agencies

CHOICE	TICKETING PORTALS	ONLINE TRAVEL AGENCIES	OFFLINE TRAVEL AGENCIES
Transactional portal			
Transact with other's products			
Transact with exceeding products	Transact with regular products	Transact with regular products	Transact with regular products
Commission on the transaction price			
Online marketing campaigns			No
Assessments, opinions, and suggestions	No	No	No
Price with discounts	Full price	Full price	Full price
Target end users		Both end users and corporate customers	Both end users and corporate customers
A hundred percent online	Website, telephone, and cashiers		Call centres and physical offices
Back-office with service staff	No		
In-house IS		IS developed by the headquarters	
Tailor-made IS			
Open source technologies			
Only reserve (theatres, restaurants, and hotels)	Sell and collect	Sell and collect	Sell and collect
Deal with few tour-operators		Deal with many tour-operators	Deal with many tour-operators
No charge to customer (urban leisure business model)	Charge a fee to the buyer		
Open to venture capital			
Hold the majority of the ownership			

8.3. NATURHOUSE CASE STUDY REPORT

8.3.1. Analysis of the data in view of the theoretical propositions

1. Opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems.

Rival proposition: Opportunity recognition relies on firm's routine practises and procedures.

Opportunity recognition relied clearly on the personal intuition and individual initiative and capacity of the founder of Naturhouse. The creation of the business model benefited from his previous experience in another firm of the industry –Dietisa- but was triggered by some industry shocks –a liberalization, an increase in the market power of the retailers (both the traditional dietetic shops and the big distribution), and an increase in the competitive pressure- and a growing trend in other industries towards reaching directly the end consumer through retail chains and render the intermediaries obsolete. Another characteristic of the industry was a lack of professionalism on the part of the independent retailers.

The basic idea –reaching the end consumer through a channel and a method under their control- was clear since the very beginning –at Dietisa- and it seems that it was based on similar formats the founder could see in the USA.

We can conclude that opportunity recognition relied on the personal intuition and individual initiative and capacity of an entrepreneur who saw similar formats in the USA, had opened some shops when he worked for Dietisa, and was tired of the way of doing business with non-professional retailers who always asked for discounts in exchange of volumes. He relied on his prior experience and on subjective and idiosyncratic interpretations (Woo, Daellenbach, & Nicholls-Nixon, 1994) of an adverse environment instead of using formal systems and routine practises and procedures.

Therefore, this theoretical proposition applies to Naturhouse.

2. Opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge.

Rival proposition: Systematic search for opportunities is not possible and opportunities are discovered without actively searching for them.

The success of Naturhouse cannot be explained without the founder's prior knowledge acquired during the years at Dietisa. Many parts of the business model were taken from their prior experience (i.e. motivation and commitment as ingredients of the business model are rooted on a group therapy initially linked to Dietisa called *Peso Perfecto*).

Therefore, the entrepreneur had not recognized the opportunity without a systematic search within their knowledge domain, the dietetic industry. Therefore, systematic and constrained search was not only possible but also necessary, and we can conclude that this theoretical proposition applies to Naturhouse.

Naturhouse conducts “experiments” which may be extensions of the Naturhouse core concept or new concepts to be implemented out of Naturhouse. They are developing a chain of “anti-aging” shops which constitute a new business opportunity recognized thanks their knowledge about “what properly eating can do for you,” based in turn on their Naturhouse prior knowledge.

3. The greater the barriers to imitation created by causal ambiguity, the greater the sustained competitive advantage and, hence, the greater the goodness or superiority of a business model.

Causal ambiguity occurs when competitors do not understand the causal relationships between actions and outcomes (Reed & DeFillippi, 1990).

A part from using powerful barriers to imitation created by causal ambiguity, they think in addition that copies, no matter how exact they may be, will always be inferior in themselves. A copy is just a copy without any additional contribution. *“Even in the case of unconstrained resources, if you do an exact copy of the original, you will get the original but nothing else. (...) And a copy will be always a copy. Nothing is better than the original.”* They believe that the intrinsic inferiority of a copy may also be a way to deter entry by newcomers.

A source of casual ambiguity is the commitment between the dietician and the customer (*“sometimes our shops become psychologist’s offices”*) and the so-called motivational issue (*“the emotional help which acts as a psychological support: ‘Come on! We can!’*). They constitute one of the key success factors and the connection between these ingredients and the outcomes of the business model is difficult to be understood. Motivation and commitment are rooted on the group therapies common in the industry of weight loss and are part of the prior knowledge of the founders.

The control and follow-up by the dietician is part of a strategy to fight the lack of continuity and the abandonment that explain the failure of diets to loss weight, and it is difficult to perceive that the success of Naturhouse’s method is directly related to the “soft” pressure exercised by the dietician (*“I have an exam. (...) I have an appointment with the dietician; I must avoid a ticking off”*). Much of the people who start a diet achieve their weight loss goal –the success rate is high- and communicate their success through word-of-mouth; therefore, a satisfied client attracts other potential customers who –if satisfied- attract more, and so on, describing a strengthening virtuous cycle.

Another source of causal ambiguity is the use of a closed method (*“with such a method people does not have freedom to do their way and everybody is obliged to follow the systematic we know that runs. (...) We knew in advance that it runs because it is based on methods that have always existed. (...) But they existed and still exist in an atomized way. And when a method is used in a fragmented way it does not globally run”*). The success of Naturhouse relies heavily on the creation of a network of 1.600 dieticians using the same closed method. *“The population of satisfied clients supports the method. And as the population increases the probe is more consistent,”* while the other alternatives –independent diet shops, endocrinologists, herbalists- can not use the successful experience of a mass of satisfied past customers to exercise the “soft” pressure to unsuccessful patients. The use of a closed method also allows Naturhouse to exert some control over the franchisees and avoid problems that may harm the business

reputation; and, of course, a closed method makes easier to scale the business up. But using a closed method was primarily a source of causal ambiguity since the benefits were not perceived by the competition.

A probe of the effectiveness of causal ambiguity to raise barriers to imitation is the response of the members of the industry association. The competitors did not early react thanks to the role of Abelló –one of the interviewees- in the meetings of the industry association and the role of the sales force confirming that the shops were not running quite well. Causal ambiguity relates to the fact that *“they [the competitors] did not notice that the model was based on appointments to avoid a continuous flow of clients, few products but high turnover... (...). I was not going to explain them our strategy of few products with high inventory turnover and visits with prior appointment to secure privacy. (...). The competitors did not understand what was happening. (...). They competed against us in the field of the traditional retailers, fighting the ‘recycling’ initiative, and leaving our shops free of marking.”* We do not know whether the role of Abelló and the sales force was part of an “intended” strategy or is the result of individually and unconsciously responding to informal comments by the competitors’ managers and sales forces.

On the other hand, they explicitly state that the very barrier to imitation is not the product (*“someone else could appear with a similar formulation”*) but the difficulties to understand the relationship between the components of the model: *“our model is like a mobile by Calder: things are supported by other things. Someone wanting to copy the model must know the system very well, the parts and the whole. If you miss a critical part you are lost.”* In brief, what makes the business model difficult to “copy and past” is its architecture (R. M. Henderson & Clark, 1990) and the fact that architectural innovation is both competence-destroying and competence-enhancing, and also requires the acquisition of new competences. On the other hand, copying a business model requires copying all the features, and missing one of them may result in a complete failure because they complement each other.

Finally, neither the competitors nor the employees understood that a fast expansion was required to corner the market and prevent other’s entry by not leaving free zones.

4. The more clear and explicit the choices of a business model, and the more differing from those of the competitors; and the more strengthening the virtuous cycles, the greater the goodness or superiority of the business model.

One of the first clear and explicit choices that differentiated Naturhouse from the competition was the advice for free by a full time qualified professional that wears a white coat. The first attempt to differentiate via not charging for advice was an initiative called “recycling,” and it was one of the features of the first Naturhouse shops.

Using a closed method was –and still is- a differentiator in regards to the competitors (*“the novelty is apply one of the existing methods to lose weight at a large scale without any variation”*), and it is a choice clear and explicit. Everything is stated in written protocols, which can not be skipped by the franchisees, which sometimes promote “siren songs” in the form of new diets or other potential departures from the closed

method (“*nobody can depart from the rules. (...) Nobody can invent a part from us. ‘Free drawing’ is not allowed*”).

Other choices that are clear, explicit, and differing are: focus on weight loss, few products (the competitors “*still do not understand why we are not selling at least two variants of the same product*”), exclusive products, low inventory, high guaranteed margin for the franchisee, and a common and distinctive image. They have had to deal with potential departures in the form of “siren songs” promoted by the same franchisees.

Ownership of Grupo Kiluva in the manufacturing plants, reliance on franchisees to scale the business model up, allow everybody to make their living (franchiser, franchisees, and manufacturing plants), not to charge the franchisees for everything, sell to the shops instead of doing “push,” funding the growth thanks to retained earnings, et cetera, are policies clear and explicit that have shaped the business model since its inception. The desired mix of franchisees among self-employers and entrepreneurs could be another policy that will shape the business model in the future. This policy is now forming since the issue was mentioned separately by the interviewees and they did not agree in a single formula.

Naturhouse also chose not to perform some activities. They renounced to treat unhealthy clients and derive them to their doctor or endocrinologist. That is a clever decision in view of the risks associated with the business and the tight surveillance exercised by the competitors, the medical class, and the health administrations.

Naturhouse choices are firmly kept and the company refuses any departure from the business model. Departures from the model (“siren songs”) would have been treating problems other than weight control and providing other services inside the premises. They differentiate between extensions within the Naturhouse concept (give more inside the current shops) and new concepts to be implemented a part from Natuhouse (wines, perfumes, “anti-aging”). They would accept to depart from the business model but with a strategy to protect the core business, like using another brand and shop format. A part from the claims of the franchisees for “*something so successful than this,*” another example of “siren song” is the various “approximations” by external capital.

If disruptive strategic innovations are ways of doing business different from and in conflict with the traditional ways, and the choices or trade-offs are different in the two ways of doing business (Charitou & Markides, 2003), we can conclude that the extent to which the choices of a business model are different from the choices of rival business models could explain part of the success of the business models and, hence, part of their goodness or superiority. Therefore, we need to assess how different the choices of Naturhouse are from those of their competitors.

In table **8.3. Choices of Naturhouse compared to dietetic shops, supers/hypers/pharmacies, herbalists, and endocrinologists** Naturhouse choices are listed in the left column. We have identified four types of competitors. We indicate in the corresponding cell the counterpart of each Naturhouse choice for each type of competition.

Naturhouse compete against: (i) dietetic shops supplied by the big manufacturers of the industry (Santiveri, Dietisa, Soria Natural), (ii) supermarkets, hypermarkets, and pharmacies supplied by the same big manufacturers, (iii) herbalists supplied by the same big manufacturers or by other manufacturers, and (iv) endocrinologists.

Several choices differentiate the Naturhouse business model from the business model of the dietetic shops: Naturhouse operate with a closed method, rely on a full time qualified professional who visit the customers with prior appointment, only treat weight loss, do not charge for an advice which is not compelling, sell a narrow range of dietetic complements for weight loss only with a high inventory turnover, do a sort of “omnipresent” marketing based on the comparison before-after, expand through franchisees in the best locations with a common and distinctive image. By contrast, the dietetic shops are independent retailers with different brands and images which do not operate with a closed method; qualified professionals are part time and external, and the dietetic shops charge the customer for their advice; they sell a wide range of dietetic complements to treat weight loss and other dysfunctions with a low inventory turnover; their marketing is the marketing of the manufacturers which is not based on the philosophy before-after; locations may not be the best and the image is different and usually poor. The most critical choice is the use of a closed method. Dietetic shops can not say that they are using a closed method like the proven “Naturhouse method.” Therefore, the business models are not only different with opposite choices but also conflicting since they target the same market and customers, and the Naturhouse business model possesses ways to weaken the virtues of the dietetic shops business model (Casadesus-Masanell, 2004).

The main difference between Naturhouse and the supermarkets, hypermarkets, and pharmacies is the fact that those retailers just sell products using the marketing of the manufacturers which is not based on the philosophy before-after. They do not offer the advice of qualified professionals. They sell low-turnover dietetic complements for weight loss and other dysfunctions. Both business models are different with opposite choices but may not be conflicting since the retailers target those customers that do not need the interaction with a qualified professional and are recurring-purchasers of the same items, items they know well and consume regularly. To the extent that those customers are able to achieve and keep the desired weight goals, the business model is effective.

The business model of the herbalists is similar to the dietetic shops business model, with few differences: they can be supplied by manufacturers other than de industry leaders, their product range may be wider to treat more dysfunctions and their image and marketing may be even poorer.

The business model of the endocrinologists differs from Naturhouse business model in several choices: Naturhouse use a closed method that relies on a combination of a diet, dietetic complements, and motivation and commitment, to treat weight loss only. Each endocrinologist uses a different method, they can not call for a common method, and they can not say that they are using a closed method like the proven “Naturhouse method.” By contrast, they treat dysfunctions other than weight loss and treat obesity and the kind of illnesses Naturhouse have refused to treat. They charge a fee for the advice, which is their way of generating revenues, and recommend a diet. As far as dietetic complements are concerned, they just prescribe. Both business models are

different with opposite choices but may not be conflicting since the endocrinologists target those customers with obesity and other illnesses and those that are not confident with the Naturhouse method since it is not a “medical” one.

Finally, we can conclude that Naturhouse business model is good since it allows the firm to attain its goals (Casadesus-Masanell & Ricart, 2007). Naturhouse choices deliver consequences that move the firm towards achieving its objectives (alignment to goal), choices complement each other well (reinforcement), there exist several virtuous cycles closely related to the goals and that imply growth (virtuousness), and the business model is able to sustain its effectiveness over time (robustness).

As we have seen in epigraph 7.3.5. **Naturhouse business model representation**, Naturhouse choices deliver consequences that ultimately end up in a high ROE for the firm (alignment to goal). Using a closed method and focusing the business in weight loss only are choices that complement each other well (reinforcement): both facilitate the know-how transfer to franchisees and, therefore, an early and quick expansion to corner the market, prevent the entry of newcomers, and reduce the number of rival methods. We have identified up to three virtuous cycles related to the use of a closed method which is the factor that explains the firm’s growth (virtuousness). Having cornered the market ensures the sustainability of the business model over time (robustness).

5. The degree of formality depends on the stage of evolution, on the settings, or on the nature of innovation.

Rival proposition: The degree of formality does not depend on the stage of evolution, on the settings, or on the nature of innovation.

Settings refer to either the need to exploit or the need to explore (March, 1991), either refine and improve the prevailing strategy or create a new strategy (Regnér, 2003), either being in a mature environment or in an uncertain environment (S. L. Brown & Eisenhardt, 1995), either in a stable and predictable environment having to defend a position or in a unstable and unpredictable environment having to create a position (Hart, 1992), either dealing with a predictable future or dealing with an unpredictable future, or in early stages of a new business (Sarasvathy, 2001). Nature of innovation refers to either sustaining or disruptive innovations (Bower & Christensen, 1995; C. M. Christensen, Johnson, & Rigby, 2002).

At Naturhouse the innovation process is perceived as one of trial-and-error by the management.

Business experiments are not costly, are fast to be implemented, and can be reversed in case of a failure, substantial changes in projects are possible and inexpensive, and projects can be immediately cancelled. Business characteristics –sale of products and provision of services through a retail chain expanded using the franchise formula- could also be considered part of the settings, and therefore would determine an informal type of innovation.

Locations and licensees are chosen using “a model,” “something like an algorithm,” “a formula,” “a system,” but the final decision is taken following the intuition developed through experience. “And you fail many times and then what really matters is the

successes/failures ratio.” Some other statements support the notion that those choices are made primarily following intuition and the learning acquired through trial-and-error: *“such insights are given by long-time experience. A new shop is never opened unless I give my blessing to the location. (...). That is learned through experience. Some things do not perform as expected. We may have a priori good locations that finally do not perform, and we do not understand why; and a priori bad locations that do perform very well, and we do not find out the reasons.”*

From the case study we can conclude that at Naturhouse the degree of formality does not change with changes in the settings. The degree of formality is the same when they are crafting the business model and when they are scaling it up, while it could depend on the stage of evolution (from minimum formality when the business model is crafted to maximum formality when the business model is being scaled up) or on the nature of innovation (from maximum formality in product sustaining innovations to minimum formality in business disruptive innovation). The degree of formality at Naturhouse seems to be always low, no matter the stage of evolution, the settings, or the nature of innovation.

We have no evidence of the use of analytical tools or frameworks.

6. Good or superior business models are developed through analysis and planning using analytical tools and frameworks and refined through the learning from trial-and-error.

Rival proposition 1: Good or superior business models are developed solely through analysis and planning using analytical tools and frameworks.

Rival proposition 2: Good or superior business models are crafted using the learning from trial-and-error.

If learning consists of acquiring knowledge about action-outcome relationships by analyzing disparities between predictions and outcomes (Duncan & Weiss, 1979; Garud & Van De Ven, 1992; Govindarajan & Trimble, 2005a; Van De Ven & Polley, 1992) and experimentation or trial-and-error consists of converting assumptions about unknowns into knowledge at the lowest possible cost (MacMillan & McGrath, 2004), we can conclude that Naturhouse clearly crafted their business model using the learning from trial-and-error (rival proposition 2).

They opened a first shop, a second shop, et cetera, as labs where they conducted experiments. They initially filled the shop with a wide range of products and services and through a process of “pruning” (*“I want this product out of my shop”*) they rejected some of the products and services until they reach the essence of Naturhouse, a focused business model. *“Some features were sacrificed in exchange of focus.”* They refined and refined the business model until it started running smoothly. The outcome was focus –only weight loss- and differentiation in regards to the various competitors.

The process they followed fits Chen & Van de Ven (1996) statement that action-outcome relationships follow a chaotic pattern initially and an order pattern at the end, and that learning in chaos is an expanding and diverging process and learning in order is a narrowing and converging process, a notion that matches that of Foster & Kaplan (2001b) of diverging and convergent thinking.

Since different activities offer different learning opportunities, the sequence of activities determines the learning (Woo, Daellenbach, & Nicholls-Nixon, 1994). By opening the first shops a learning sequence was established.

Naturhouse tries to apply the same strategy –conducting “experiments”- to potential extensions within the Naturhouse concept or to new concepts to be developed out of Naturhouse (i.e. a chain of “anti-aging” shops). In the “anti-aging” shops they follow the same logic followed with Naturhouse fifteen years ago: if *“it does not run, change it until it finally runs.”* The strategy consists of *“opening a first shop, noticing that nothing happens as expected...,”* a situation that relates with the question of what to do after a negative outcome in a trial-and-error learning process. People do not learn what to do after a negative outcome. They only learn what not to do. They must change their course of action to avoid a negative outcome again but they do not know if the change will lead to a positive outcome (Van De Ven & Polley, 1992).

The formula also includes management determination: *“since the first shop does not run as expected, the underlying logic of others would be: ‘it does not run, close down!’ Our underlying logic is: ‘it does not run, change it until it finally runs! (...). We are refining the format, we are correcting the course. And the project starts running better. The project looks now different from our initial expectations. It is not what we wanted at the beginning, and maybe the final concept will be completely different from the initial one. (...). We spent five years creating Naturhouse until we started franchising it.”*

Experimentation plus determination seem to be the way Naturhouse strategically innovates. Experimentation at Naturhouse has to do with the statement: *“if what is logical and conventional is ‘A’, we will do ‘B.’ Following an underlying logic, of course...”* Determination, on the other hand, has to do with: *“when someone has said: ‘it cannot be done,’ I have said: ‘it can be done...”* They put special attention on the competitors’ reaction since if they believe that it is not possible they will not probably devote any effort to it. Determination means, on Naturhouse managers’ words, tenacity, self-confidence, hard work, et cetera.

“It can be done” when “someone has said that it cannot be done” relates with the role of strategic context in Burgelman (1983c, p. 232), which is to *“demonstrate that what conventional corporate wisdom had classified as impossible was, in fact, possible.”*

The creation of Naturhouse business model matches perfectly the statement of Van de Ven, Hudson, & Schroeder (1984) that successful entrepreneurs intuitively follow some steps but give little attention to formally and carefully documenting them, and that innovations begin on a small scale, are implemented incrementally, and expand on the basis of previous success to learn from mistakes and make the necessary adjustments in the business plan, and have a single person in command.

Strategy making at Naturhouse has to do with Mintzberg’s (1973) entrepreneurial mode in which one strong leader takes bold, risky actions on behalf of his organization, and strategy is guided by the entrepreneur’s vision and plan of attack and moves forward in dramatic leaps. But boldness is controlled since no bold move is undertaken without knowing its consequences and having “tested the waters” doing minor probes. Strategy making is based on the entrepreneur’s intimate and personalized knowledge of the business.

In this kind of trial-and-error learning, learning emerges from interpretation, and interpretations of the entrepreneur are subjective and idiosyncratic (Woo, Daellenbach, & Nicholls-Nixon, 1994).

7. Formal and informal strategy making are not substitutes for one another.

Rival proposition: Formal and informal strategy making are substitutes for one another.

We can conclude that this theoretical proposition applies to Naturhouse, since experiments can not be substituted by analysis and planning using analytical tools and frameworks.

8. Trial-and-error learning is planned.

Rival proposition: Trial-and-error learning is not planned.

We can conclude that this theoretical proposition does not apply to Naturhouse (the rival proposition does apply), because the process of experimentation is not divided in steps or milestones and decisions are taken using improvisation (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b).

9. Good or superior business models deliver a new solution for an unmet market need.

Rival proposition: Business models can be good or superior without delivering a new solution for an unmet market need.

Naturhouse is a novel solution to fill an old unmet market need.

Therefore, we can conclude that this theoretical proposition applies to Naturhouse.

10. Good or superior business models create a new market by targeting non-consumers.

Rival proposition: Business models can be good or superior without creating a new market by targeting non-consumers.

In the weight loss market there has been a shift of customers from other methods to Naturhouse but also a market growth due to social changes, the desire to lose weight for either beauty or healthy reasons.

Naturhouse initially did not target non-consumers. They targeted unsatisfied consumers from alternative ways to lose weight (traditional dietetic shops, endocrinologists, naturopaths, herbalists, et cetera). Recently, they are targeting men who are clearly non-consumers and are launching campaigns or continuity programmes to keep their old customers active or “hooked” forever. In the former case, they have not created market; they have taken customers from others. But if they are able to attract men who were not preoccupied by excess weight or to keep old customers active, they will create market.

Therefore, we can conclude that this theoretical proposition does not apply to Naturhouse. By contrast, the rival proposition does apply to –at least- the initial business model.

11. Radical innovation is dominated by new entrants.

Rival proposition: A radical innovation may be dominated by an incumbent.

Naturhouse were an incumbent –they initially sold to traditional dietetic shops- but were also a new entrant that dominates the innovation of dietetic retail chains.

Therefore, we can conclude that this theoretical proposition applies to Naturhouse.

8.3.2. How the choices were made and the virtuous cycles created

The major part of Naturhouse choices were probably made experimenting at the Dietisa shops, or with the “recycling” initiative of Grupo Kiluva, or at the first Naturhouse shops. These choices were the result of “*a highly judgmental activity that rests in the hands of a dominant leader*” (Fredrickson, 1984, p. 460) who followed a chaos-order pattern, a expanding-narrowing and diverging-converging process (Cheng & van de Ven, 1996; Foster & Kaplan, 2001b). The entrepreneur first filled the shops with a wide range of products for a wide range of treatments and achieved the essence of Naturhouse after a process of “*pruning*,” using improvisation –convergence in time of design and implementation- (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b).

Those choices were made thanks to a “cooking” process that has to do with effectuation (Saravathy, 2001), choosing between many possible effects using a particular set of means. For instance, they sought the effect of loosing excess weight applying a closed method which is a compilation of existing methods (a diet + dietetic complements + motivation and commitment); a method applied in a convenient location (a shop with qualified dieticians and the same privacy as a doctor’s office) and tied to a credible value proposition (advice for free in exchange of some dietetic complements, proven success through word-of-mouth and corporate communication of before/after), et cetera. Other choices relate to the way of making the business model profitable and scalable. Those choices (narrow product range, limited inventory, expansion through franchisees, allow manufacturing plants and franchisees to make their living, open in the best locations, and prices higher than the competitors’) are the result of applying common – and, therefore, non-idiosyncratic- knowledge (Fiet, 2007) about the franchise as a formula for quick and cheap expansion and other managerial practises to ensure the capture of as much of the value created as possible.

Finally, we have not found evidence of the use of analytical tools and frameworks to make the choices.

CHOICE	HOW IT WAS MADE
A closed method	Experimentation at the first Naturhouse shops
A full time qualified professional	Experimentation at the Dietisa shops
Weight loss only	Experimentation at the first Naturhouse shops
Advice for free and non-compelling	Experimentation with the “recycling” initiative
Visits with prior appointment	Experimentation at the Dietisa shops
Dietetic complements for weight loss only	Experimentation at the first Naturhouse shops
Healthy people with excess weight only	Experimentation at the first Naturhouse shops
Common and distinctive image of shops	

Narrow product range	Experimentation at the first Naturhouse shops
Limited inventory	
Communication before/after	
Ownership of manufacturing plants	
Expansion through franchisees	
Allow manufacturing plants and franchisees to make their living	
Rely on internal founding	
Open in the best locations	
Cooperate with traditional medicine	
Prices higher than the competitors'	

8.3.3. What else... do we have learnt from the case study?

The business model is based on a clever but simple business idea which can be expressed in a single sentence: help customers to lose their excess weight using a closed method (a diet + dietetic complements + a “soft” pressure by a professional dietician).

Opportunity recognition relied on top managers rather than on operational-level managers (Burgelman, 1988).

Prior specific knowledge in the dietetic industry was clearly a pre-requisite for opportunity discovery (Fiet, 2007; Shane, 2000).

Extensions of the Naturhouse core concept or new concepts are informally evaluated in view of some dimensions (MacMillan & McGrath, 2004) or some criteria –fit, value, rarity, and inimitability- (Fiet & Patel, 2006). If the new concepts do not fit the Naturhouse core concept, they are developed out of Naturhouse.

Some authors state that strategic innovations consist of making choices on the product, on the customer, or on the activities performed. Markides (1997) refers to making choices on “the what,” “the who,” and “the how.” Davila, Epstein, & Shelton (2005) refer to making choices on the value proposition, the target customer, and the supply chain. Govindarajan & Trimble (2004; , 2005b) refer to making choices on the value proposition, the customer, and the value chain. Naturhouse business model consisted of making choices about the supply chain.

Strategic innovations also consist of some “what not to do,” trade-offs about the products not offered, the customers not targeted, or the activities not performed (C. Markides, 1999). Not to treat dysfunctions other than excess weight is probably the most important “what not to do.”

Not to charge for the advice of a full time qualified professional –and, therefore, include the cost in the price of the dietetic complements- was a price innovation (W. C. Kim & R. e. Mauborgne, 2005) in the dietetic industry.

Rappa (2004) emphasizes the need to determine clearly the mechanism of value generation of the business models, which in the case of Naturhouse is a price for the dietetic complements that covers all the costs, included the cost of the advice.

Lead users (von Hippel, 1986) could be for Naturhouse the first men going to a shop and following a diet.

Since they suffered market erosion, commoditization, competitive convergence, and competitive destruction (Magretta, 2002) in their sales to independent retailers and big distribution, rather than fear of cannibalization of the existing products (Foster & Kaplan, 2001a; C. Markides, 1998), they exhibited willingness to cannibalize and at the time of launching the new business model they were prepared to reduce the actual and potential value of their investments (Chandy & Tellis, 1998).

We can conclude that Naturhouse business model was crafted using the learning from trial-and-error (rival proposition 2) and that the strategic innovation approach was haphazard, to mention the term of Chandler cited in Burgelman (1983b).

Naturhouse use improvisation –convergence in time of design and implementation- (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b), and rely on intuition –operate with choices made without formal analysis- (Crossan & Sorrenti, 1997).

They do not plan for trial-and-error (C. M. Christensen, Raynor, & Anthony, 2003; Govindarajan & Trimble, 2004; MacMillan & McGrath, 2004; McGrath & MacMillan, 1995), since they neither identify key assumptions nor define milestones. By contrast, by staging the opening of the first shops in both Naturhouse and the “anti-aging shops,” they use some sort of real options reasoning since they postpone commitments until they have converted assumptions about unknown into knowledge at a reasonable cost (MacMillan & McGrath, 2004). They use some sort of stage-gate systems (R. G. Cooper, 1990) to guide the process of experimentation.

Experimenting with the first shops proves the use of real options reasoning based on “lots of inexpensive failures from which you can learn” (McGrath, 2000, p. 48). When they open the first shops they “stage the financial commitment” (Gilbert & Bower, 2002) and “limit the risk of exploration and allow experimentation and learning” (Bowman & Hurry, 1993).

The way Naturhouse created their business model and have scaled it up has to do with the statement that if new businesses start small, managers can figure out the needs of the new customers and adjust business models and product architectures (Gilbert, 2003).

They were told “you are crazy” in the industry association meetings when they opened the first shops.

We can not consider Naturhouse a learning organization because they do not have formal systems to create, acquire, and transfer knowledge (Garvin, 1993).

The entrepreneur had absorptive capacity (Cohen & Levinthal, 1990, 1994), capacity to “exploit” outside knowledge, assimilate it, and apply it to commercial ends, as far as the dietetic industry is concerned after having worked for Dietisa.

Innovation at Naturhouse is driven by supply-push processes rather than by demand or customer needs (C. Markides, 2006; C. C. Markides & Geroski, 2005).

Naturhouse do not have to rely on product champions (Chakrabarti, 1974; Howell & Higgins, 1990; Howell, Shea, & Higgins, 1998) since innovation is driven by the entrepreneur.

Naturhouse always have refused to open their equity to external founding.

We cannot speak of a dominant design (Anderson & Tushman, 1990; C. M. Christensen, Suárez, & Utterback, 1998; R. M. Henderson & Clark, 1990; Michael L. Tushman & Anderson, 1986; Michael L. Tushman & Murmann, 1998) in the case of Naturhouse. Rather, we can speak of an “admired design.”

Established competitors responded to Naturhouse innovation by ignoring the innovation (Charitou & Markides, 2003). They did not see the innovation as a threat. From the four entry strategies of McGrath and MacMillan (2000), Naturhouse chose the so-called onslaught, an aggressive entry to capture the entire arena. Potential newcomers should distract Naturhouse’s attention to successfully enter the market. In this case “*we would be so focused on other issues not to notice they are doing something similar,*” which is difficult.

Following the recommendation by Markides and Charitou (2004) of setting separated business units when conflicts between two business models are serious and markets are different, Naturhouse set up two separated commercial organizations for Kiluva (products to be sold to independent retailers) and Housediet (products to be sold in the Naturhouse shops) because there is channel conflict (Foster & Kaplan, 2001a). On the other hand, new concepts (i.e. “anti-aging” shops) without a fit with Naturhouse core concepts are to be implemented out of Naturhouse.

There was not something similar in the market in Europe and therefore Naturhouse was the first in entering the market.

Naturhouse was created in response to an industry shock and to avoid market erosion, commoditization, competitive convergence, and competitive destruction (Magretta, 2002).

The business model is vulnerable due to its reliance on weight loss and control since the customers become inactive when they have achieved their desired weight.

The business model has been replicated on a global basis with local adaptations.

Without being suggested by the researcher, the interviewees mentioned “trial-and-error.”

Two concepts, focus and differentiation, were repeated by the interviewees without being suggested by the researcher. Focus referred to concentrate on weight loss and control and forget other dysfunctions, and differentiation meant doing the opposite of the competition.

They would probably support the idea that “*the [only] way to determine if and how to pursue a new business opportunity is to pursue it*” (Lynn, Morone, & Paulson, 1996), since they believe in haphazard, non-systematic approaches. Therefore, they may be

mentally open to launch new businesses without prior and in-depth analysis and planning.

They observe the market (*“gauche the mood of the market”*) thanks to the directly managed shops.

The business model was created to *“reach the end user directly by skipping the independent retailer and the big distribution.”* Independent retailers were not professionalized and big distribution had a lot of bargaining power. In selling to both independent retailers and big distribution, Grupo Kiluva was stuck in the middle between the big industry leaders –Santiveri and Dietisa- and the small competitors that competed on price and discounts.

The growth of the business has been possible thanks to the fragmentation of the market and the lack of professionalism (dietetic shops, herbalists, et cetera, selling a lot of different products –from esoteric to “bio” products-, buying from several manufacturers on the base of price and discounts, charging for the advice) but also due to the fact that the big competitors organized around the industry association did not understand Naturhouse’s strategy until it was too late in part due to the tactics used to “distract” the competitors at the beginning of the expansion, when filling as many gaps as possible was essential.

A crucial innovation was the change from charging for advice –which was a paradigm of the “old” model of dietetic shops and herbalists- to advice for free or “included” in the dietetic complements. This was considered by the competitors a direct attack to the industry traditional practices and triggered a tough response by them. Opening shops with a full time qualified professional was a move to give credibility to the choice of not charging for the advice. This rendered obsolete the common practise of relying on external “experts” who provide with advice inside the independent retailers premises on a weekly basis. Shops with a qualified professional and a sales assistant gave credibility to the philosophy of “advice for free and non-compelling” and “you are not obliged to buy dietetic components” and also delayed the response of the competitors since they did not believe in the economic viability of such a schema.

Once they understood Naturhouse’s strategy, Santiveri and Dietisa could not open their retail chain for fear to cannibalize the sales to their retail customers. Grupo Kiluva could open a new distribution channel, in conflict with the traditional one, because they had a weak position in it. Naturhouse’s competitors reacted similarly to Dell’s competitors, who could not target the end user for fear to cannibalize their distribution channel. The only alternative would have been launching a retail chain using a second brand and a different packaging and probably a separate business unit. They would have had to manage two conflicting business models within the same organization (C. Markides, 2006).

The statement: *“the simple and easy ideas are the ones that run. However, what is complex is to find out a simple and easy idea”* relates with Drucker’s (2002, p. 102) statement that *“to be effective, an innovation has to be simple.”*

Table 8.3. Choices of Naturhouse compared to dietetic shops, supers/hypers/pharmacies, herbalists, and endocrinologists

CHOICE	MANUFACTURER + DIETETIC SHOP	MANUFACTURER + SUPERMARKET OR HYPERMARKET OR PHARMACY	HERBALISTS	ENDOCRINOLOGISTS
A closed method	No	Sell products only	No	No
A full time qualified professional	No	No	No	
Weight loss only	Other dysfunctions	Other dysfunctions	Other dysfunctions	Other dysfunctions
Advice for free and non-compelling	Charge a fee for the advice		Charge a fee for the advice	Charge a fee for the advice
Visits with prior appointment	No		No	
Dietetic complements for weight loss only	Dietetic complements for other dysfunctions	Dietetic complements for other dysfunctions	Dietetic complements for other dysfunctions	Diet
Healthy people with excess weight only				Obesity and other illnesses
Common and distinctive image of shops	No		No	
Narrow product range	Wide product range		Wide product range	Diet
Limited inventory	No	No	No	
Communication before/after	No	No	No	No
Ownership of manufacturing plants				
Expansion through franchisees	Independent retailers		Independent retailers	
Allow manufacturing plants and franchisees to make their living				
Rely on internal founding				
Shops in the best locations	No		No	
Cooperate with traditional medicine				
Prices higher than the competitors'				

8.4. CROSS-CASE ANALYSIS AND RESULTS

8.4.1. Analysis of the data in view of the theoretical propositions

1. **Opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems.**

Rival proposition: Opportunity recognition relies on firm's routine practises and procedures.

This theoretical proposition is literally replicated in the three cases. Opportunity recognition relied on personal intuition and/or individual initiative and capacity in all the business models of AUSA, Atrápalo.com, and Naturhouse. If used, systems and firm's routines practises and procedures are informal or informally used (i.e. AUSA checklist to guide market observation and get ideas when they visit clients or trade fairs).

2. **Opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge.**

Rival proposition: Systematic search for opportunities is not possible and opportunities are discovered without actively searching for them.

This theoretical proposition is literally replicated in the three cases. It had been almost impossible to recognize the business opportunities in all the business models of AUSA, Atrápalo.com, and Naturhouse without a systematic search constrained to the prior knowledge of the entrepreneurs in their domains. In all the cases, systematic and constrained search was not only possible but also necessary. Just being alert (Kirzner, 1997) to discover opportunities without searching for them (Shane, 2000) would not have probably led the respective founders to their recognition.

3. **The greater the barriers to imitation created by causal ambiguity, the greater the sustained competitive advantage and, hence, the greater the goodness or superiority of a business model.**

“Embedding” AUSA corporate values in the products to make them appealing in the market, or basing the EcoSite procedures on “*an array of different steps which cannot be thought of unless someone has done it during sometime,*” a type of knowledge which can only be acquired by living “*inside the works,*” or offering the products on the Atrápalo.com website in a novel and attractive way and including the past users experience, or using the “soft” pressure exercised by the Naturhouse dieticians to generate customers' commitment and motivation and using a closed method, are all examples of barriers to imitation created by causal ambiguity.

From the case studies we can conclude that these barriers to imitation are a source of sustained competitive advantage and explain part of the success of the business models and, hence, part of their goodness or superiority; especially during their first stage of evolution.

These barriers to imitation are temporary. They will be –or have been- a source of sustained competitive advantage while the competitors do not understand –or have not

understood- the causal relationships between actions and outcomes. The difficulties to understand them are due to their tacitness, complexity, or specificity. But sooner or later, the barriers will be –or have been- overcome by the competitors and the protection will decay –or have already decayed- (Reed & DeFillippi, 1990). Sooner or later, Ecosite competitors will be able to emulate (Teece, Pisano, & Shuen, 2000) or match (McGrath, 2000) the procedure, urban leisure intermediaries will be able to create a website so attractive than that of Atrápalo.com, and dietetic shops will be able to imitate or replicate (Teece, Pisano, & Shuen, 2000) Naturhouse’s “soft” pressure and closed method.

If those barriers decay, the sustained competitive advantage will disappear and the business models will lose their goodness or superiority. A strategy to keep the sustained competitive advantage after the extinction of the causal ambiguity that supported the barriers to imitation is to corner the market by deploying the business model early and quickly. Atrápalo.com tried to attract as many theatres and restaurants as possible and Naturhouse tried to open as many shops as possible in a short period of time to prevent the entry of newcomers.

4. The more clear and explicit the choices of a business model, and the more differing from those of the competitors; and the more strengthening the virtuous cycles, the greater the goodness or superiority of the business model.

The companies of the three cases have consistent business models with clear and explicit choices from different business dimensions that reinforce each other and create virtuous cycles. In some cases (i.e. Naturhouse), the entire set of choices is difficult to “copy and past.” The metaphor of the mobile by Calder illustrates to what extent copying a business model may be a complex task because it requires copying all the features, and missing one of them may result in a complete failure because they complement each other.

We can conclude that in all the cases the company’s strategy differs from that of their competitors. Choices are firmly kept and the companies refuse any departure (“siren song”) from the business model. However, they would accept to depart from the business model but with a strategy to protect the core business (i.e. using a second brand –AUSA-, using other brands and websites –Atrápalo.com- or using another brand and shop format –Naturhouse-).

As we have summarized in tables 8.1., 8.2., and 8.3., the choices of the focal company are the **opposite** of those of the competitors, and the business model of the focal company **contrasts** with the business models of the rivals. As we have anticipated in the individual case study reports, opposite choices and contrasting business models, together with strengthening virtuous cycles, could explain part of the success of the business models and, hence, part of their goodness or superiority.

In addition to opposite choices and contrasting business models, most of the business models are also **conflicting** (AUSA versus the Spanish copiers, Atrápalo.com versus the other online travel agencies, Atrápalo.com versus the offline travel agencies, Naturhouse versus the dietetic shops, and Naturhouse versus the herbalists), since they

target the same markets and customer segments and possess ways to weaken and interrupt the others' virtuous cycles (Casadesus-Masanell, 2004).

Finally, we can conclude that the business models of the three companies are good since they allow the firms to attain their goals (Casadesus-Masanell & Ricart, 2007). Firms' choices deliver consequences that move the firms towards achieving their objectives (alignment to goal), choices complement each other well (reinforcement), there exist several virtuous cycles closely related to the goals and that imply growth (virtuousness), and the business models are able to sustain their effectiveness over time (robustness).

5. The degree of formality depends on the stage of evolution, on the settings, or on the nature of innovation.

Rival proposition: The degree of formality does not depend on the stage of evolution, on the settings, or on the nature of innovation.

In the three cases, the degree of formality differs, but we have no evidence of the use of analytical tools or frameworks.

At AUSA the degree of formality depends on the stage of evolution, on the settings, and on the nature of innovation. Therefore, the theoretical proposition applies to AUSA.

At Atrápalo.com the degree of formality is always the same, no matter the stage of evolution, the settings, or the nature of innovation. They always rely on a "haphazard" approach to innovation due to the fact that they are in a fast changing industry. We do not know how formal the processes would be at Atrápalo.com should the environment in which the industry evolves become more stable and predictable. Therefore, the rival proposition applies to Atrápalo.com. In fact, the finding is a theoretical and not a literal (Yin, 2003) replication of the original proposition. The results are contrasting but for predictable reasons (the industry changes so fast that the degree of formality must be necessarily low).

At Naturhouse the degree of formality is always the same, no matter the stage of evolution, the settings, or the nature of innovation. And it is low. They rely always on improvisation (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b). The degree of formality could be higher as the business model matures or when the environment in which it evolves becomes more stable and predictable, but it does not change. Therefore, the rival proposition applies to Naturhouse and the finding is contradictory, since the results are contrasting but not for predictable reasons.

6. Good or superior business models are developed through analysis and planning using analytical tools and frameworks and refined through the learning from trial-and-error.

Rival proposition 1: Good or superior business models are developed solely through analysis and planning using analytical tools and frameworks.

Rival proposition 2: Good or superior business models are crafted using the learning from trial-and-error.

If learning consists of acquiring knowledge about action-outcome relationships by analyzing disparities between predictions and outcomes (Duncan & Weiss, 1979; Garud

& Van De Ven, 1992; Govindarajan & Trimble, 2005a; Van De Ven & Polley, 1992) and experimentation or trial-and-error consists of converting assumptions about unknowns into knowledge at the lowest possible cost (MacMillan & McGrath, 2004), the business models of the three case studies were crafted using the learning from trial-and-error, and rival proposition 2 is literally replicated in the three cases. Despite we do not have evidence of a process of trial-and-error learning to craft them, it seems that rival proposition 2, rather than either the original proposition or rival proposition 1, better fits the creation of the PTV and the dumpers business models.

The EcoSite business model and Naturhouse business model were also created thanks to management's determination, as pointed out by the respective managers.

7. Formal and informal strategy making are not substitutes for one another.

Rival proposition: Formal and informal strategy making are substitutes for one another.

This theoretical proposition is literally replicated in the three cases.

8. Trial-and-error learning is planned.

Rival proposition: Trial-and-error learning is not planned.

The rival proposition is literally replicated in the three cases.

9. Good or superior business models deliver a new solution for an unmet market need.

Rival proposition: Business models can be good or superior without delivering a new solution for an unmet market need.

This theoretical proposition is literally replicated in the three cases (in the case of Atrápalo.com only as far as the urban leisure business model is concerned).

10. Good or superior business models create a new market by targeting non-consumers.

Rival proposition: Business models can be good or superior without creating a new market by targeting non-consumers.

This theoretical proposition is not literally replicated in the three cases. It is literally replicated in AUSA and the Atrápalo.com urban leisure business model, but the rival proposition applies to Naturhouse. They have not created a new market by targeting non-consumers; rather, they have stolen customers from other weight loss methods. The finding is contradictory, since the results are contrasting but not for predictable reasons.

11. Radical innovation is dominated by new entrants.

Rival proposition: A radical innovation may be dominated by an incumbent.

This theoretical proposition is literally replicated in the Atrápalo.com urban leisure business model and in Naturhouse. The findings of AUSA are not conclusive enough.

8.4.2. How the choices were made and the virtuous cycles created

We have not found evidence of the use of a rational process, a process comprehensive, exhaustive, and analytical in approach (Hart, 1992) in which goals are identified before and independent of the analysis of alternatives (Fredrickson & Mitchell, 1984).

We have not found evidence of the use of analytical tools and frameworks to make the choices.

These are the first and main conclusions of the three case studies. The question of how companies make their choices (i.e. how AUSA made their choice of targeting niche markets) remains unanswered.

We have identified the origin of some minor choices: appointing an external CEO or managing director and classifying at source in the EcoSite business model (AUSA); the Atrápalo.com choices made due to a lack of resources, or the unavailability of alternatives, or the founders' vocation, or a set of coincidences; and the Naturhouse choices to make the business model profitable and scalable. However, the main choices were made "*as a highly judgemental activity*" (Fredrickson, 1984, p. 460) of top management, and the strategy formed by those choices is the result of "*countless strategic decisions that have been made, one at a time, over a period of years*" (Fredrickson, 1984, p. 400); it has formed "*gradually, perhaps unintentionally, as he [the strategy-maker] makes his decisions one by one*" (Mintzberg, 1978, p. 935).

Atrápalo.com and Naturhouse used improvisation –convergence in time of design and implementation- (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b) and effectuation processes (Sarasvathy, 2001) to make their choices and craft their business models. Rather than seeking goals, they sought effects, occupying the theatres from Tuesday to Thursday (Atrápalo.com) and helping to lose excess weight (Naturhouse).

Nothing else can be concluded from the three case studies about how they made their choices.

8.4.3. What else... do we have learnt from the case study?

The business models are based on clever but simple business ideas which can be expressed in a single sentence.

Opportunity recognition relied on top managers, and prior specific knowledge was a pre-requisite for opportunity discovery.

Business ideas are formally or informally evaluated in view of some criteria to ensure fit with strategy and values, positioning, or core format. If there is no fit, they may be rejected or launched using other brands or formats.

Strategic innovation has consisted of making choices on one or more of the following dimensions: who/customer, what/value proposition, how/value chain, and making trade-

offs (or “what not to do”) about the products not offered, the customers not targeted, or the activities not performed.

The mechanism of value generation is clearly determined.

The three firms targeted lead users.

The approach to business innovation is haphazard, non-systematic. The approach to AUSA product innovation is systematic. The three firms use intuition and do not plan for trial-and-error. Atrápalo.com and Naturhouse use improvisation more than AUSA.

They were told “you are crazy” when they were crafting their business models.

Only AUSA can be considered a learning organization. Being a learning organization is not compulsory for strategic innovation should the process be driven by powerful individuals. By contrast, having absorptive capacity is compulsory.

Innovation is driven by supply-push processes.

Manager’s determination was essential to strategic innovation.

They tried to avoid a competitive response by launching marginal products or small businesses in terms of sales and margin or by using entry strategies that led the competitors to ignore the innovation. On the other hand, they tried to corner the market early and quickly to prevent the entry of newcomers.

They have set up separated business units or commercial organizations or used different brands or formats when conflicts could be serious and markets different.

They were first in the market; there was nothing similar in the market before.

The business model was created in response to an industry crisis, to depart from a vulnerable positioning, or to avoid market erosion and commoditization.

The models can be replicated on a global basis with local adaptations.

“To be one step ahead of the competition,” “trial-and-error,” “focus,” and “differentiation” were mentioned without being suggested by the researcher at least by two different companies.

Two of the three companies would support the statement: “*the [only] way to determine if and how to pursue a new business opportunity is to pursue it*” (Lynn, Morone, & Paulson, 1996).

Table 8.4. Comparison between AUSA, Atrápalo.com, and Naturhouse

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
The business models are based on clever but simple business ideas	<p><u>Dumpers business model</u> Target niche markets to avoid the competition of the big multinational firms and achieve high margins by targeting the world market and implementing manufacturing methods from the automotive industry; invest the high margins in R&D to out-compete the Spanish copiers</p> <p><u>EcoSite business model</u> Classify the construction waste at source</p>	Transact with exceeding products through the Internet in exchange of a commission on the transaction price; display the offerings in an attractive way	Help customers to lose their excess weight using a closed method (a diet + dietetic complements + a “soft” pressure by a professional dietician)
Cognitive leap (O'Connor & Rice, 2001)	<p><u>EcoSite business model</u> They directly observed the works in which AUSA machines run and observed some transfer plants in The Netherlands where the mixed wasted was classified using weight machinery. <i>“We analyzed the system and concluded that it is crazy, as things should be properly done since the beginning, without creating systems to correct the wrong way to work. We thought a lot about this issue.”</i></p>		
Opportunity recognition by top managers or by operational-level managers (Burgelman, 1988)	Top managers	Top managers	Top managers

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
Prior specific knowledge is a pre-requisite for opportunity discovery (Fiet, 2007; Shane, 2000)	<u>PTV cars business model</u> Prior specific knowledge in mechanics and motor sports was a pre-requisite <u>Dumpers business model</u> Prior specific knowledge in mechanics was a pre-requisite <u>EcoSite business model</u> Prior specific knowledge in either the construction or the environmental industries was not a pre-requisite. They discovered the opportunity without any prior specific knowledge in either industry	Prior specific knowledge in Internet businesses (not in the travel industry) was a pre-requisite	Prior specific knowledge in the dietetics industry was a pre-requisite
An entrepreneur being in the right place at the right time (Fiet & Patel, 2006)	<u>Dumpers business model</u> Be in the German trade fair <u>EcoSite business model</u> Be in the works where AUSA machines run		
Hunters, active seekers of opportunities, search through the organization for ideas, asking questions to uncover latent ideas and articulate the opportunity in compelling terms to attract the attention of top management (Leifer, O'Connor, & Rice, 2001; O'Connor & Rice, 2001)	One of the missions of the Innovation Management Department		
Dimensions to evaluate opportunities (MacMillan & McGrath, 2004) and criteria (fit, value, rarity, and inimitability) to evaluate ideas (Fiet & Patel, 2006)	AUSA Innovation Plan formalizes the criteria and steps for evaluation. Criteria are fit with AUSA strategy and values, and enhancement of the current strategy (diversification from the Spanish construction industry and internationalization)	Business ideas that may mean another positioning are to be launched using other brands and websites	“Experiments” may be extensions of the Naturhouse core concept or new concepts. Extensions may be implemented within Naturhouse and new concepts (“anti-aging” shops) are to be implemented out of Naturhouse, depending on the fit with the core concept

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
Make choices on what, who, and how (C. Markides, 1997); value proposition, target customer, and supply chain (Davila, Epstein, & Shelton, 2005); value proposition, customer, and value chain (Govindarajan & Trimble, 2004, 2005b)	<u>PTV cars business model</u> What, value proposition <u>Dumpers business model</u> What, value proposition <u>EcoSite business model</u> What, value proposition How, supply chain	<u>Urban leisure business model</u> Who, customer How, supply chain <u>Holiday leisure business model</u> How, supply chain	How, supply chain
Products not offered, customers not targeted, and activities not performed (C. Markides, 1999)	<u>Dumpers business model</u> Non-niche products	Produce services, be an informational portal, and target corporate customers	Dysfunctions other than excess weight
Price innovation (W. C. Kim & R. e. Mauborgne, 2005)		<u>Urban leisure business model</u> Commission on the transaction price	Advice for free (included in the price of the dietetic complements)
The business model generates value through... (Rappa, 2004)	<u>Ecosite business model</u> ... capturing a portion of the differential cost of disposing the waste mixed or classified	Commissions	Sale of dietetic complements (advice included in the price)
Lead users (von Hippel, 1986)	<u>Dumpers business model</u> Machines ceded for free to major construction firms <u>EcoSite business model</u> Pilot tests with major construction firms	<u>Holiday leisure business model</u> The first customers were those not afraid of buying through the Internet	The first men going to a Naturhouse shop can be considered lead users
Fear of cannibalization of the existing products (Foster & Kaplan, 2001a; C. Markides, 1998) or willingness to cannibalize (Chandy & Tellis, 1998)			They suffered market erosion and commoditization in their sales to independent retailers and big distribution. At the time of launching the new business model they were prepared to reduce the actual and potential value of its investments (Chandy & Tellis, 1998)
Haphazard, non-systematic approach to innovation [Chandler cited by Burgelman (1983c)]	Systematic approach for product innovation and more haphazard, non-systematic for business innovation	Haphazard, non-systematic approach	Haphazard, non-systematic approach
Formal documents for analysis and planning	Annual plans Business opportunities matrix (<u>EcoSite business model</u>)	Original business plan Annual plans	

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
Improvisation, convergence in time of design and implementation (Miner, Bassoff, & Moorman, 2001; Moorman & Miner, 1998a, 1998b)	No	Yes	Yes
Intuition, operating with choices made without formal analysis (Crossan & Sorrenti, 1997)	Yes	Yes	Yes
Planning for trial-and-error (C. M. Christensen, Raynor, & Anthony, 2003; Govindarajan & Trimble, 2004; MacMillan & McGrath, 2004; McGrath & MacMillan, 1995)	No	No	No
Real options reasoning (Bowman & Hurry, 1993; Gilbert & Bower, 2002; McGrath, 2000)	<u>EcoSite business model</u> They have conducted pilot tests They have not recruited a unit manager until the commercial launch of the business	No, due to the low level of investment	Yes. They staged the shop opening
Are you crazy?	<u>EcoSite business model</u> The transfer plants	The venture capitalists before the commercial launch of the business	The industry association members
Learning organization skilled at creating, acquiring, and transferring knowledge (Garvin, 1993)	Yes	No	No
Absorptive capacity, capacity to “exploit” outside knowledge, assimilate it, and apply it to commercial ends (Cohen & Levinthal, 1990, 1994)	<u>Dumpers business model</u> Accumulated throughout a fifty-year trajectory <u>EcoSite business model</u> Bought hiring a unit manager	In Internet businesses, not in the travel industry	In the dietetic industry after having worked for Dietisa
Innovations are driven by demand or customer needs (C. Markides, 2006; C. C. Markides & Geroski, 2005) or...	... by supply-push processes	... by supply-push processes	... by supply-push processes
Product champions (Chakrabarti, 1974; Howell & Higgins, 1990)	There is no need for an informal role since there is a formal role within the Corporate Development Department created by top management	No. Innovation is driven by top managers	No. Innovation is driven by top managers

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
Gatekeepers (J. W. Brown & Utterback, 1985; Ettlie & Elsenbach, 2007; Michael L. Tushman, 1977)	External experts in creativity sessions, universities, and research centres	Venture capital	
Outside consultation (Utterback, 1971)	In the EcoSite business model creation	Strategic thinking sessions with professors from a business school	
Venture capital	Yes	Yes	No
Educate the customer through “concerts for free”	<u>Dumpers business model</u> First sales to major construction firms Dealings with potential multi-service vehicles customers <u>EcoSite business model</u> Dealings with major construction firms to get a first order to conduct a pilot test	<u>Urban leisure business model</u> Dealings with theatres and restaurants	
Managers’ determination	Yes	Yes	Yes
Dominant design (Anderson & Tushman, 1990; C. M. Christensen, Suárez, & Utterback, 1998; R. M. Henderson & Clark, 1990; Michael L. Tushman & Anderson, 1986; Michael L. Tushman & Murmann, 1998)	EcoSite business model could constitute an “admired design”	Urban leisure business model can constitute an “admired design”	The business model can constitute an “admired design”
The innovation does not attract the attention of the big firms (Charitou & Markides, 2003; C. M. Christensen, Johnson, & Rigby, 2002)	Dumpers and forklifts (marginal products for the big firms)	Urban leisure business model	
Barriers to entry		Corner the market adhering as much as theatres and restaurants as possible	Corner the market with a shop in every corner

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
Separated business units when conflicts are serious and markets are different (C. Markides & Charitou, 2004)	Different business unit for EcoSite to allow “forgetting” (Govindarajan & Trimble, 2005a, 2005b)	Business ideas that may mean another positioning are to be launched using other brands and websites	Two separated commercial organizations for Kiluva (products to be sold to independent retailers) and Housediet (products to be sold in the Naturhouse shops) because there is channel conflict (Foster & Kaplan, 2001a) Extensions may be implemented within Naturhouse and new concepts (“anti-aging” shops) are to be implemented out of Naturhouse, depending on the fit with the core concept
First in the market (there was not something similar in the market)	<u>EcoSite business model</u> Yes	<u>Urban leisure business model</u> Yes	Yes
The business model was created...	<u>Dumpers business model</u> ... in response to an industry shock <u>EcoSite business model</u> ... to follow the sustainability plan and depart from the Spanish construction industry		... in response to a industry shock and to avoid market erosion and commoditization
Vulnerable positioning from which to depart...	<u>Dumpers business model</u> ... reliance on the Spanish construction industry	<u>Holiday leisure business model</u> ... reliance on flights	... reliance on weight loss and control since the customers become inactive when they have achieved their desired weight
The model can be replicated on a global basis with local adaptations	Yes, the <u>Ecosite business model</u>	More the <u>holiday business model</u> than the <u>urban leisure business model</u>	Yes
“To be one step ahead of the competition” mentioned without being suggested by the researcher	Yes	Yes	
“Trial-and-error” mentioned without being suggested by the researcher	Yes	Yes	Yes
“Focus” and “differentiation” mentioned without being suggested by the researcher		Yes	Yes

STATEMENT	AUSA	ATRÁPALO.COM	NATURHOUSE
<i>"The [only] way to determine if and how to pursue a new business opportunity is to pursue it"</i> (Lynn, Morone, & Paulson, 1996)	No. Before launch it, analysis and planning	Yes	Yes

9. ANALYSIS

In section **9.1. Analysis of the Research Strategy** we will review the steps of the strategy followed to conduct the research. The research strategy has been explained in detail throughout the dissertation, but in a fragmented way, since we have presented a portion of the entire research strategy in each chapter. Therefore, one of the purposes of the section is to display the entire research strategy in a single graph showing all the steps and their connections.

In addition, we will evaluate the research strategy in terms of its ability to generate an original contribution to the research problem and, hence, to develop theory. Finally, we will also point out some of the weaknesses of the research strategy, to be taken into account for future research into the domain of the same research problem.

Section **9.2. Analysis of the Results of the Case Studies** consists of the inductive process of theory building that leads to the ending theory of chapter **10. Theory Developed Throughout the Research (Ending Theory)**. The section is based on chapter **8. Case Study Reports**. A part from the confirmation, challenge, or extension of the theoretical propositions of section **6.1. Theoretical Propositions**, the main findings of the research will be used to inductively build the ending theory, which is in fact the outcome of the section.

9.1. ANALYSIS OF THE RESEARCH STRATEGY

Graph 9.1. **Research strategy** shows the steps of the strategy followed to conduct the research.

The outcome of the review of the literature (step 1) has been the initial theory (step 2) of section 4.2. **Initial Theory** which summarizes the relevant statements, classified by constructs. We have used those constructs to build an initial framework (step 3). Both the initial theory and the initial framework are the result of an ongoing and iterative process.

The initial framework has been used: (i) to represent graphically the main theoretical propositions of the case study protocol (step 4) and (ii) as a guide throughout the entire research. The bulk of the research is to confirm, challenge, or extend the theoretical propositions of the case study protocol.

The case study research (step 5) has been conducted following the case study protocol. The data compiled during the research mainly through semi-structured interviews has been codified using the constructs of the framework. The outcome of the case study research has been the case study reports (step 6). However, some findings of the case study research have encouraged the researcher to seek further related references to enrich the initial theory, modify the initial framework, and extend the field research, in an ongoing and iterative process from step 1 to step 5.

The ending theory (step 8) is the outcome of the analysis of the results of the case study (step 7). The comparison of the initial and the ending theory is the contribution to the development of the theory (step 9), which has consisted of: (i) confirming six of the eleven theoretical propositions of the case study protocol, (ii) challenging two (in fact, rejecting the original theoretical propositions and accepting their rival counterparts), and (iii) considering the remaining three as not so conclusive.

Other contributions have been: (i) the formulation of eight new theoretical propositions derived from the case study research, to be confirmed, challenged, or extended in future research, and (ii) the identification of other findings of interest.

The outcome of the contribution is the final framework (step 10) which is a summary of the essentials of the research. The non-relevant constructs have been removed, and using the remaining constructs we could almost articulate the main findings of the research in a single sentence.

Research strategies must be evaluated in terms of their ability to generate an original contribution to the research problem and, hence, to develop theory.

The research problem was to shed light on the question of how good business strategies are made and specifically how good and superior business models are crafted. The research questions to be answered were how and why entrepreneurs and existing firms create and design new business models. The bulk of the research was to provide with insight into the question of whether entrepreneurs and existing firms use formal analysis or rely on the learning from trial-and-error. Additionally, the expected contribution included the provision of tools to help entrepreneurs and firms create new business

models, if the conclusion was that strategy is made using analytical tools and frameworks, or alternately the provision of procedures to design experiments and maximize the lessons learned, if the conclusion was that strategy is made using the learning from trial-and-error. Finally, we expected to confirm that existing firms carry out strategic innovation as a response to the competitive pressure.

The research strategy has been appropriate since we have been able: (i) to prove that firms make their strategies and craft their business models using the learning from trial-and-error; (ii) to prove that they do not use analytical tools and frameworks; and (iii) to provide with a tool and procedures for entrepreneurs to design good and superior business models.

By contrast, we have been unable to shed light on the question of how firms make the choices of their business models. Since the firms we have studied do not use formal analysis, we have been unable to provide with tools to help entrepreneurs and firms to create new business models following analysis and planning. Since the firms, despite relying on the learning from trial-and-error, do not plan for trial-and-error, we have been unable to provide with a procedure to guide experimentation such as the discovery-driven planning and similar approaches of the review of the literature. In addition, we have been unable to provide with any tool or procedure to solve one of the problems of experimentation, the fact that after a negative outcome we learn what not to do but we do not learn what to do to obtain a positive outcome in the next experiment.

As far as the second research question is concerned –why entrepreneurs and existing firms create and design new business models- the results have not been conclusive because we have not paid quite attention to the question in the research design. In fact, none of the theoretical propositions of section **6.1. Theoretical Propositions** referred explicitly to this research question. During the first stage of the research we saw that the motives to create a new business model were so varied that it would have been impossible to replicate the findings across the three case studies: (i) AUSA PTV business model and Atrápalo.com business models were created by the entrepreneurial desires of the founders; AUSA dumpers and forklifts business model was created as a result of an industry shock, following a desire to survive, and to leverage an accumulated know-how and take advantage of an inventory of parts; AUSA EcoSite business model was created as part of a sustainability plan to depart from the Spanish construction industry; finally, Naturhouse is the only business model created as a response to the competitive pressure.

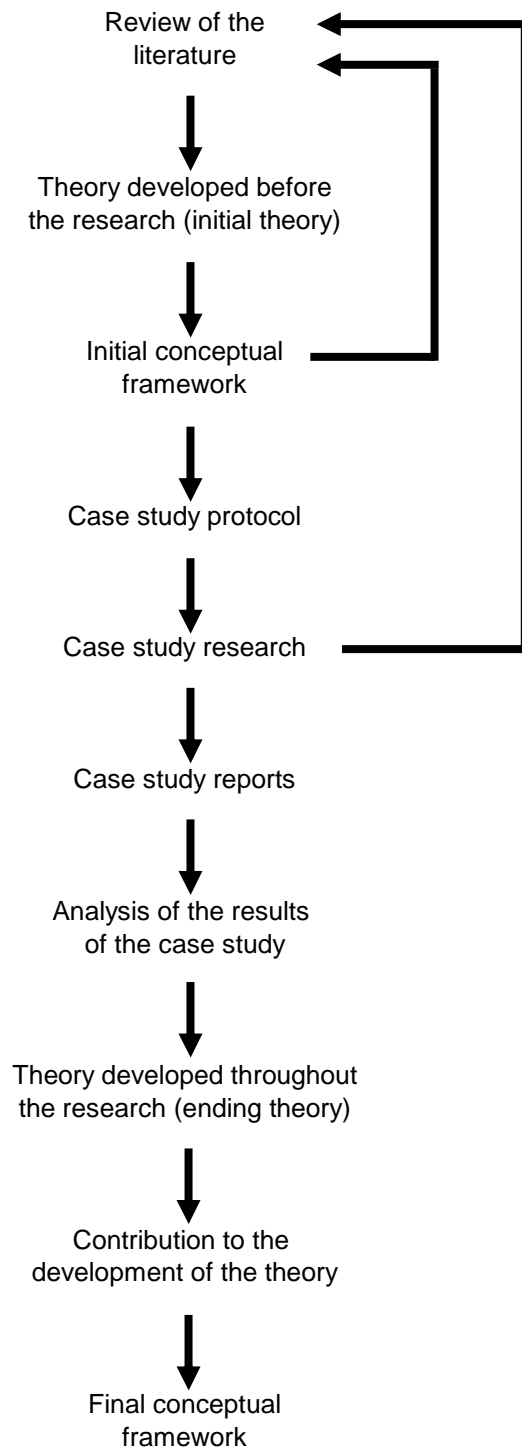
These are the outcomes of the chosen research strategy.

In regards to the weaknesses, we have been able to maintain a chain of evidence, but due to the nature of the subject it has been problematic to use multiple sources of evidence through a process of triangulation (Yin, 2003), and sources of evidence have been almost limited to semi-structured interviews.

Despite the case study is the preferred strategy “*when the focus is on contemporary phenomenon*” (Yin, 2003, p. 1), we have asked the interviewees to evoke non-contemporary events to answer the question: “how did you make your firm’s choices?” Since they were made long time ago and the informants did not remember how they made them or they were made by intuition and recorded information simply do not

exist, the result is that we have not been able to shed light on the issue of how choices are made when a business model is crafted. That is why we propose to conduct a longitudinal case study of a business model in progress in chapter **12. Future Research Areas**.

Graph 9.1. Research strategy



9.2. ANALYSIS OF THE RESULTS OF THE CASE STUDIES

In the case studies we have not found evidence of the use of a rational process and the use of analytical tools and frameworks to make the choices of the business model. Rather, the decision-maker has relied on his judgement and has used improvisation and effectuation processes, and in most of the cases the strategies have formed gradually, choice by choice. Intuition –operating with choices made without formal analysis– seems to be the common practise.

This finding is problematic because one of the expected contributions of the research was to provide with insight into formal or informal procedures useful for entrepreneurs and existing firms to design good and superior business models and, specifically, find any pattern to make the choices that shape a business model.

The interviewees have informed about their business models' choices as they are today, and no information is given about how they were made, because either the choices were made long time ago and they do not remember how they made them or because they were made by intuition, without the use of a rational process with analytical tools and frameworks and recorded information simply does not exist. In sum, the interviewees have been able to enumerate the choices but unable to explain how they were made.

To shed light on the issue of how choices are made when a business model is crafted, the events should be more contemporary. As pointed out in section **9.1. Analysis of the Research Strategy**, one of the weaknesses of the research strategy, as far as this issue is concerned, is not having conducted a longitudinal case study of a business model in progress. This weakness is, at same time, an opportunity for future research, as we will explain in chapter **12. Future Research Areas**.

However, the informants have provided enough information about the nature of their choices, as well as those of their competitors. The information has allowed us to represent the business models of the three firms and compare them with those of their competitors, aggregated in types of competition. The results are the findings of theoretical proposition 4: the companies have business models with clear and explicit choices from different dimensions that reinforce each other and create virtuous cycles; the company's strategy differs from that of their competitors; choices are firmly kept and the companies refuse any departure ("siren song") from the business model; the choices of the focal company are the **opposite** of those of the competitors, and the business model of the focal company **contrasts** with the business models of the rivals; opposite choices and contrasting business models, together with strengthening virtuous cycles, could explain part of the success of the business models and, hence, part of their goodness and superiority; most of the business models are also **conflicting** since they target the same markets and customer segments and possess ways to weaken and interrupt the other's virtuous cycles.

From this finding we could derive a tool useful to make choices when the firm is part of an established industry or desires to enter an established industry and seeks to design a good and superior business model. Provided that the firm has in-depth analysed the industry and is able to identify the current and potential competitors, classify them in typologies, and list their choices and represent their business models, the focal firm could make their own choices by choosing **opposite** choices in order to obtain a

contrasting business model which may also be **conflicting** depending on the markets and customer segments targeted and on the existence of virtuous cycles. The procedure would be in line with the statement: *“if what is logical and conventional is ‘A,’ we will do ‘B.’ Following an underlying logic, of course...”* And the “underlying logic” is making choices that reinforce each other and create virtuous cycles.

This approach would be supported by one of the findings of the case studies: the firms have made choices which are the **opposite** of the choices of their competing business models.

AUSA targets niche markets while the big multinational firms target mass markets; AUSA targets the world market while the Spanish copiers target the domestic market; AUSA have a wide product range, launch complementary products, have internal R&D, integrate suppliers in product development, obtain international official approvals and patents, and have a strong post-sale service, a separated innovation organization, and formal systems to generate, evaluate, and submit ideas, while the Spanish copiers have a narrow product range, do not launch complementary products, do not have internal R&D, do not integrate suppliers in product development, do not apply for international official approvals and patents, and do not have a strong post-sale service, an organization devoted to innovation, and formal systems to generate, evaluate, and submit ideas.

The same can be said as far as Atrápalo.com and Naturhouse are concerned.

Opposite choices in regards to the competition are the well-known choices of Dell: (i) sell customized products to end users (the logical and conventional in the industry was selling through the established commercial channels) and (ii) start manufacturing after the receipt of a customer’s order (the logical and conventional in the industry was manufacturing according to sales forecasts and filling the supply chain with standard products). Another example is that of the low-cost airlines: (i) fly to secondary airports (the logical and conventional in the industry is flying to principal airports) and (ii) have the same type of aircraft for the entire fleet (the logical and conventional in the industry is having aircrafts of different types for flights of different characteristics).

Usually the choices will be between the end points of a continuum. In having or not having internal R&D, there will be a continuum ranging from having a powerful internal R&D department (AUSA) to having just an service to draw the designs of the new vehicles from a sample unit of an AUSA machine (Spanish copiers). Any choice by any firm in the internal R&D dimension will fall within the described range. As far as the formal systems to generate, evaluate, and submit ideas are concerned the continuum will range from having formal, systematic, and proven systems to relying on ad hoc procedures to gather ideas.

The set of choices in the relevant dimensions will determine the features of the business model. The more **opposite** the choices, the more **contrasting** the business models will be.

Graphs 9.2., 9.3., and 9.4. have been done from tables 8.1., 8.2., and 8.3. For each business model (AUSA dumpers and forklifts, Atrápalo.com urban leisure, Atrápalo.com holiday leisure, and Naturhouse), dimensions are listed and the choices by

each of the types of competition are indicated in the continuum. For instance, in the urban leisure business model one of the dimensions is price. The continuum ranges from “full price” to “price with discounts.” The choice of the ticketing portals falls close to the “full price” end point despite they offer tickets with price discounts to their registered users while the Atrápalo.com choice falls close to the “price with discounts” end point despite Atrápalo.com sometimes offer tickets without any price reduction for events with more demand than supply.

In graph 9.2., AUSA is close to the big multinational firms in all the dimensions, except in targeting niche/mass markets, while the Spanish copiers are at the opposite extreme of the continuum in all the dimensions, except in targeting niche/mass markets. In graph 9.3., Atrápalo.com and the ticketing portals are at the same end point in some dimensions but are at the extremes of the continuum in the differentiating dimensions (transact with exceeding products, assessments, opinions, and suggestions, price with discounts, back-office with service people, only reserve, no charge to customer). Atrápalo.com and the online travel agencies are at the same end point in some dimensions but are at the extremes of the continuum in the differentiating dimensions (transact with exceeding products, assessments, opinions, and suggestions, price with discounts, target end users, in-house IS, only reserve, deal with few tour-operators). By contrast, Atrápalo.com and the offline travel agencies are at the opposite extreme of the continuum in all the dimensions. Finally, in graph 9.4., Naturhouse and all the types of competition are at the opposite extreme of the continuum in all the dimensions.

Therefore, those graphs can measure the degree of differentiation among the competing business models.

This tool could be useful to make “non-logical” and “non-conventional” choices that may lead to good and superior business models. It requires identifying the relevant competitors, the relevant industry dimensions, and the end points of each dimension. The choice of each type of competition in regards to each dimension must be indicated in the continuum. Then, a novel business model would require setting the firm’s choice in each dimension in any position of the continuum. The closer the firm’s choice to the competition choices, the more “logical” and “conventional” the choice –the less **opposite**- and the less **contrasting** the business model will be. If opposite choices and contrasting business models, together with strengthening virtuous cycles, explain part of the success of the business models and, hence, part of their goodness or superiority, crafting good and superior business models requires making choices as much extreme as possible in regards to what is considered logical and conventional in the industry.

In a second stage, the strategic innovator should identify and describe the virtuous cycles created by the choices. He should make sure that the firm’s choices not only fit but also reinforce one another. It would be a sort of ongoing and iterative process which can imply moving the choices along the continuums until the entire set of choices result in a consistent business model. In a third stage, he should think of ways to make the choices causal ambiguous in order to enjoy a sustainable competitive advantage. Finally, in a fourth stage, the strategic innovator should set clear and explicit limits to potential departures from the choices in the form of “siren songs,” and should make explicit the trade-offs (or “what not to do”) about the products not offered, the customers not targeted, or the activities not performed.

The tool we have derived is based on two constructs that have appeared reiteratively in both Atrápalo.com and Naturhouse case studies, **focus** and **differentiation**. Those terms were repeated by the interviewees without being suggested by the researcher. Both firms seek to focus on something (i.e. Atrápalo.com focuses on distribution rather than on production of leisure services and Naturhouse focuses on weight loss and control) and to differentiate from the competition (i.e. Atrápalo.com tries to differentiate undifferentiated products like flights and Naturhouse tries to differentiate doing exactly the opposite of their competitors).

Focus and differentiation are also two of the characteristics of Kim and Mauborgne's (2005) strategy canvas. They propose to use the so-called Four Actions Framework and the so-called Eliminate-Reduce-Raise-Create Grid to delineate the new value curve of a blue ocean strategy. This new value curve must have focus and a shape showing divergence from the value curves of the other players. **Focus** and **divergence** are the terms used to remark the necessary conditions to create a blue ocean. They emphasize that lack of focus may mean a high cost structure and a business model complex in implementation and execution, and lack of divergence is "me-too."

From the three case studies we have concluded that good or superior business models deliver a new solution for an unmet market need (theoretical proposition 9). None of the business models of the case studies addresses an unmet market need with known solutions. By contrast, not all good or superior business models create a new market by targeting non-consumers (theoretical proposition 10). Naturhouse has not created a new market by targeting non-consumers; rather, they have stolen customers from other weight loss methods, people who already were consumers.

Despite this contradictory finding, we could use the theoretical propositions 9 and 10 to suggest another procedure useful for entrepreneurs. An alternative way to create a good or superior business model if we are neither part of an established industry nor interested on entering an established industry could be start identifying unmet market needs or pockets of non-consumers and then think of "what-value propositions" and "how-value chains" to either deliver a new solution for the unmet market need or a more appealing solution for non-consumers. However, such identification can not be done without a systematic search constrained to the entrepreneur prior knowledge (theoretical proposition 2). Prior knowledge is a pre-requisite for opportunity discovery but can also be useful to identify unmet market needs and pockets of non-consumers.

Therefore, if one of the goals of the research was to provide with insight into formal or informal procedures useful for entrepreneurs and existing firms to design good and superior business models we can contribute with two procedures. In the first we would start with an industry analysis and make opposite choices in order to design a contrasting business model and in the second we would conduct a systematic search constrained to our prior knowledge to identify unmet market needs and pockets of non-consumers and then think of a value chain to deliver a new or a more appealing value proposition. This second procedure would require assessing the entrepreneur's prior knowledge.

Naturhouse would be an example of the first procedure. They were part of the dietetic industry, they informally analyzed the industry, and they created a contrasting business model by making opposite choices in regards to the competition. The resulting business

model is also conflicting in that its virtuous cycles weaken and interrupt the other's virtuous cycles. Their choices were also causal ambiguous.

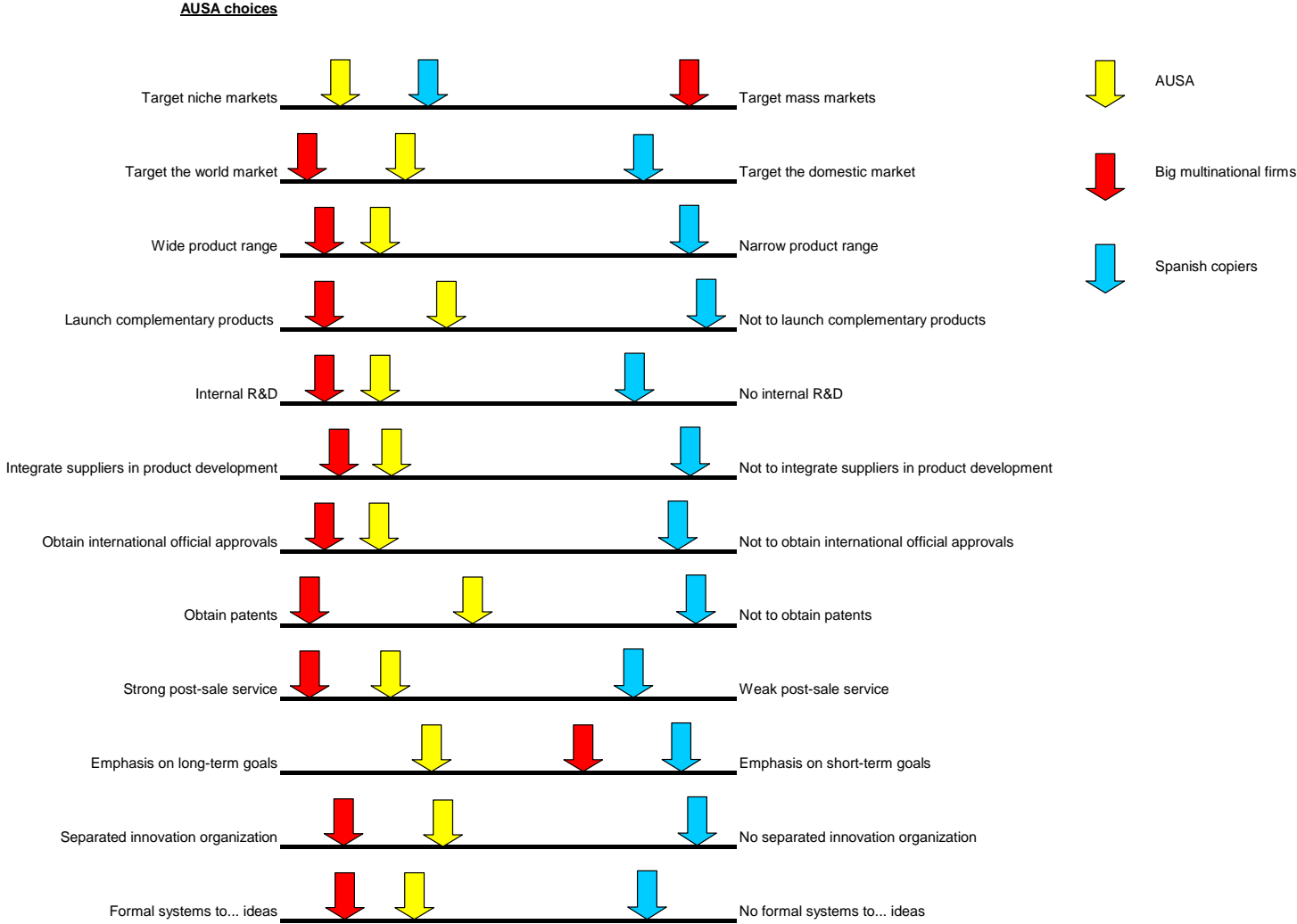
On the other hand, Atrápalo.com would be an example of the second procedure. They were not part of the industry. In fact, they were more part of the Internet industry than part of the travel industry. They conducted a systematic search constrained to their prior knowledge on Internet and identified two unmet market needs, the need of theatres to increase their occupancy from Tuesday to Thursday and the need of young people to get price reductions on the theatre tickets, and a pocket of non-consumers, young people with limited budgets.

From the case studies we have also learnt that a probe of the extent to which the resulting business model is “non-logical” or “non-conventional” is whether or not the strategic innovators are told “you are crazy.”

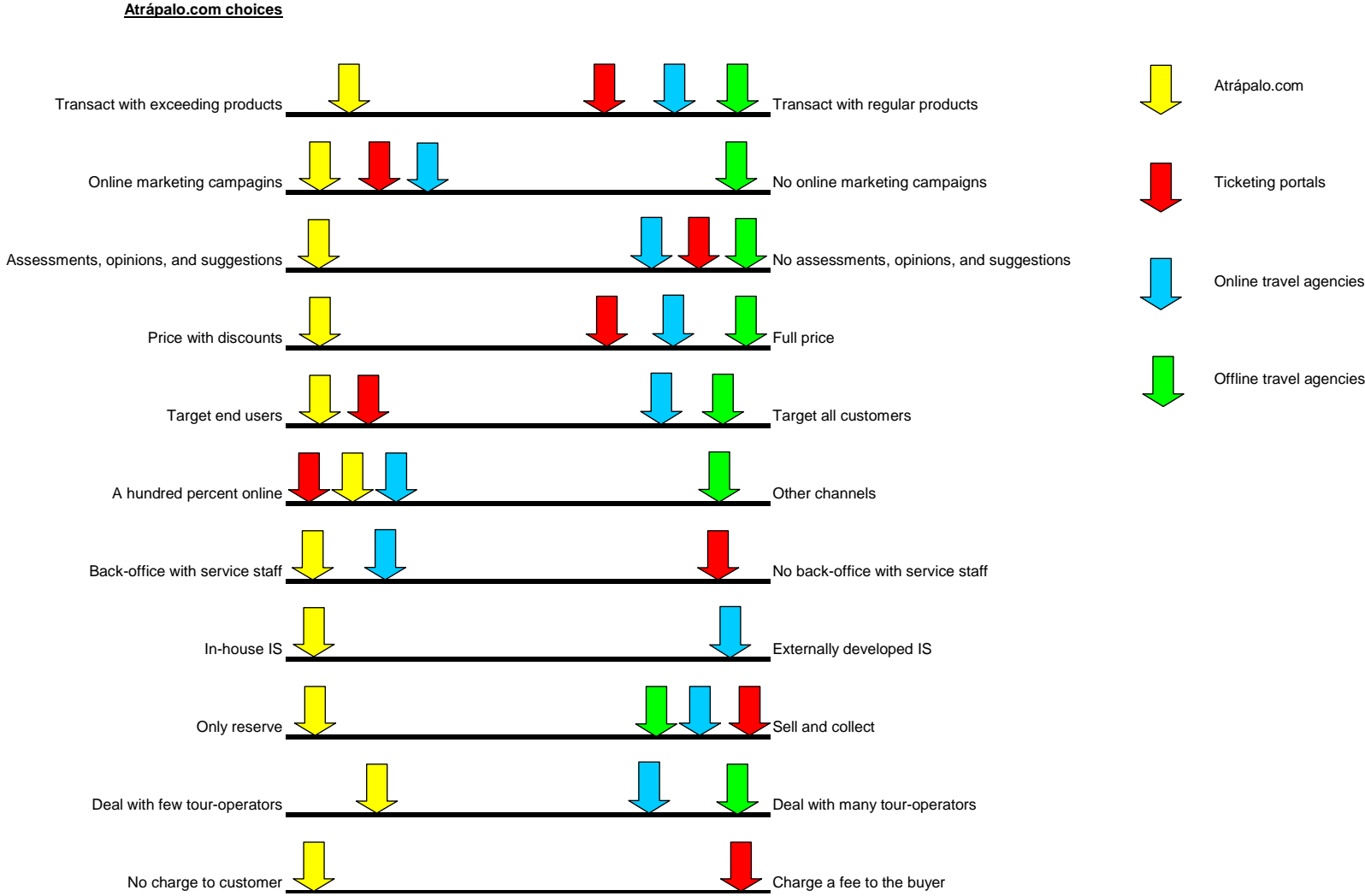
From the case studies we have concluded that a entry strategy should be selected, either one to avoid a competitive response by launching products not so “attractive” for the established competitors or one to scale the business model up early and quickly to corner the market and prevent the entry of newcomers.

Finally we could conclude that the degree of formality may also depend on the personality of the entrepreneur. At Naturhouse the degree of formality is low, no matter the stage of evolution –the business model is now mature-, the settings –the environment is now stable and predictable-, and the nature of innovation –innovations are now product and incremental innovation-, because the entrepreneur strong personality favours informal strategy making.

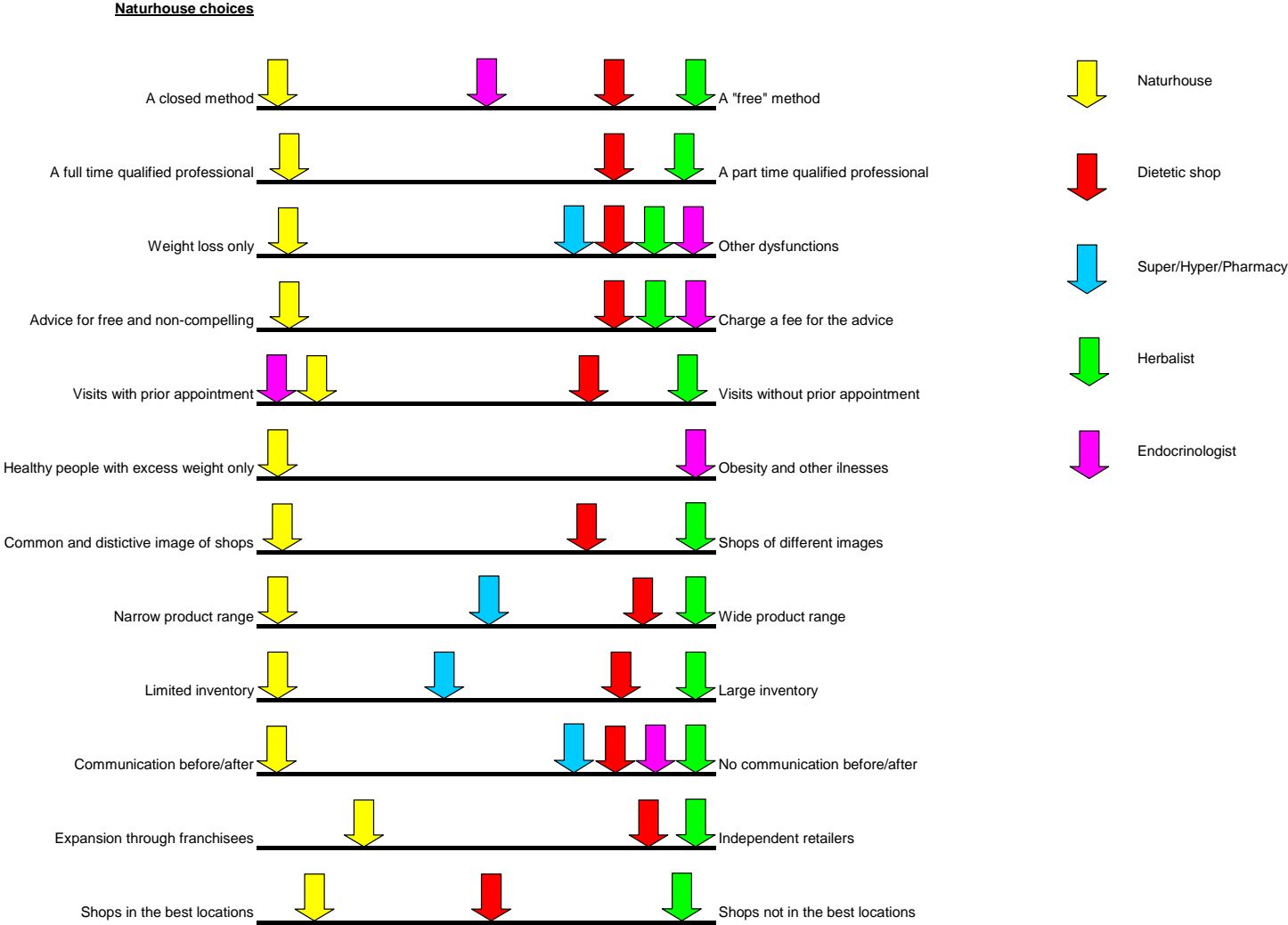
Graph 9.2. Choices of AUSA compared to big multinational firms and Spanish copiers



Graph 9.3. Choices of Atrápalo.com compared to ticketing portals, online travel agencies, and offline travel agencies



Graph 9.4. Choices of Naturhouse compared to dietetic shops, supers/hypers/pharmacies, herbalists, and endocrinologists



10. THEORY DEVELOPED THROUGHOUT THE RESEARCH (ENDING THEORY)

The research problem was to shed light on the question of how good business strategies are made and specifically how good and superior business models are crafted. The research questions to be answered were how and why entrepreneurs and existing firms create and design new business models. The bulk of the research was to provide with insight into the question of whether entrepreneurs and existing firms use formal analysis or rely on the learning from trial-and-error. Additionally, the expected contribution included the provision of tools to help entrepreneurs and firms create new business models, if the conclusion was that strategy is made using analytical tools and frameworks, or alternately the provision of procedures to design experiments and maximize the lessons learned, if the conclusion was that strategy is made using the learning from trial-and-error. Finally, we expected to confirm that existing firms carry out strategic innovation as a response to the competitive pressure.

In chapter **3. Review of the Literature** we determined the state-of-the-art of the research problem. The outcome of the review of the relevant literature was the theory developed before the research, the initial theory of section **4.2. Initial Theory**. Another outcome was the initial conceptual framework of section **2.2. Extended Conceptual Framework**.

This chapter is the outcome of section **9.2. Analysis of the Results of the Case Studies** which in turn is the outcome of section **8.4. Cross-Case Analysis and Results**.

In section **10.1. Ending Theory** we summarize the results of the case study research, the theory developed throughout the research. In section **10.2. Contribution to the Development of the Theory** we compare the initial theory and the ending theory, and remark the extent to which the initial theory has been developed thanks to the conduct of the research. In section **10.3. Final Conceptual Framework** we present the conceptual framework resulting from the research. Finally, section **10.4. Procedures for Entrepreneurs to Design Good and Superior Business Models** explains in more detail the two procedures derived from the analysis of section **9.2. Analysis of the Results of the Case Studies**.

10.1. ENDING THEORY

The case study research has confirmed four of the theoretical propositions of section

6.1. Theoretical Propositions:

- Opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems (theoretical proposition 1).
- Opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge (theoretical proposition 2).
- Formal and informal strategy making are not substitutes for one another (theoretical proposition 7).
- Good or superior business models deliver a new solution for an unmet market need (theoretical proposition 9).

These theoretical propositions are literally replicated in the three cases.

We have found evidence of barriers to imitation created by causal ambiguity in the three cases. Therefore, theoretical proposition 3 is also confirmed.

On the other hand, the case study has rejected two theoretical propositions and confirmed their rival counterparts:

- Good or superior business models are crafted using the learning from trial-and-error (rival proposition 2 of the theoretical proposition 6).
- Trial-and-error learning is not planned (rival proposition of the theoretical proposition 8).

As far as the remaining theoretical propositions are concerned, the results of the case study are not so conclusive:

- Theoretical proposition 5 (the degree of formality depends on the stage of evolution, on the settings, or on the nature of innovation): we have found a literal replication (AUSA), a theoretical replication (Atrápalo.com), and a contradiction (Naturhouse). The degree of formality at Naturhouse is always the same, no matter the stage of evolution, the settings, or the nature of innovation (rival proposition). Including in the original proposition that the degree of formality also depends on the entrepreneur's personality would solve the contradiction, and the three cases would confirm the theoretical proposition (see the last paragraph of section **9.2. Analysis of the Result of the Case Studies** for a comment on the inclusion of the entrepreneur's personality as a factor explaining the degree of formality).
- Theoretical proposition 10 (good or superior business models create a new market by targeting non-consumers): we have found a literal replication in AUSA and Atrápalo.com urban leisure business model, but not in Naturhouse.
- Theoretical proposition 11 (radical innovation is dominated by new entrants): we have found a literal replication in Atrápalo.com urban leisure business model and Naturhouse, but not in AUSA.

Therefore, as far as the mentioned theoretical propositions, the final theory states that opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems (theoretical proposition 1), that opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge (theoretical proposition 2), that good or superior business models are crafted using the

learning from trial-and-error (rival proposition 2 of the theoretical proposition 6), that formal and informal strategy making are not substitutes for one another (theoretical proposition 7), that trial-and-error learning is not planned (rival proposition of the theoretical proposition 8), and finally that good or superior business models deliver a new solution for an unmet market need (theoretical proposition 9).

The statement that prior specific knowledge is a pre-requisite for opportunity discovery is also part of the final theory. In the case studies there is evidence that it had been almost impossible to recognize the business opportunities without a systematic search constrained to the prior knowledge of the entrepreneurs in their domains. In all the cases, systematic and constrained search was not only possible but also necessary.

Another statement of the final theory is the use of causal ambiguity to raise barriers to imitation that allow the firms to enjoy a sustained competitive advantage (theoretical proposition 3). The use of causal ambiguity can be explicit or implicit, conscious or unconscious. The result is that competitors do not understand the causal relationships between actions and outcomes due to their tacit, complex, or specific nature. These barriers to imitation are temporary and they will be a source of sustained competitive advantage while the competitors do not understand the mentioned causal relationships between actions and outcomes. But sooner or later, the competitors will understand them, the barriers will be overcome, and the protection will decay. The only way to continue enjoying a sustained competitive advantage after the extinction of the causal ambiguity that supported the barriers to imitation is having cornered the market by deploying the business model early and quickly to prevent the entry of newcomers.

These barriers to imitation explain part of the success of the business models and, hence, part of their goodness or superiority; especially during their first stage of evolution.

As we have concluded in section **9.2. Analysis of the Results of the Case Studies**, in the research we have not found evidence of the use of a rational process and the use of analytical tools and frameworks to make the choices of the business model. Rather, the decision-maker has relied on his judgement and has used improvisation and effectuation processes, and in most of the cases the strategies have formed gradually, choice by choice. Intuition –operating with choices made without formal analysis- seems to be the common practise.

The research has confirmed that good and superior business models can be designed without using a rational process or without using analytical tools and frameworks. By contrast, good and superior business models can be designed relying on the entrepreneur's judgement and using improvisation and effectuation processes; and, hence, following haphazard, non-systematic approaches. In short, good and superior business models can be the result of intuition, which means operating with choices made without formal analysis.

Therefore, the final theory would state that:

Theoretical proposition 12: good and superior business models can be designed relying on the entrepreneur's judgement and intuition, and

using improvisation and effectuation processes; and, hence, following haphazard, non-systematic approaches.

This theoretical proposition constitutes an extension or a refinement of theoretical proposition 6.

The analysis of the results of theoretical proposition 4 is the bulk of the analysis. In section **9.2. Analysis of the Results of the Case Studies** we have concluded that the companies have business models with clear and explicit choices from different dimensions that reinforce each other and create virtuous cycles; the company's strategy differs from that of their competitors; choices are firmly kept and the companies refuse any departure ("siren song") from the business model; the choices of the focal company are the **opposite** of those of the competitors, and the business model of the focal company **contrasts** with the business models of the rivals; opposite choices and contrasting business models, together with strengthening virtuous cycles, could explain part of the success of the business models and, hence, part of their goodness and superiority; most of the business models are also **conflicting** since they target the same markets and customer segments and possess ways to weaken and interrupt the other's virtuous cycles.

From the above mentioned analysis we have derived the two procedures of section **10.4. Procedures for Entrepreneurs to Design Good and Superior Business Models.**

The findings of the research would also be part of the final theory:

Theoretical proposition 13: the more varied the dimensions from which the focal firm makes their choices, the greater the goodness or superiority of the focal business model.

Theoretical proposition 14: the more strong the refusal to any departure ("siren song") from the business model, the greater the goodness or superiority of the business model.

Theoretical proposition 15: the more opposite the choices of the focal company compared to those of the competitors, the more contrasting the business models will be.

Theoretical proposition 16: the more contrasting the business models and the more strengthening the virtuous cycles, the greater the goodness or superiority of the focal business model.

These theoretical propositions constitute an extension or a refinement of theoretical proposition 4.

Additional findings of the research are those related to the competitive response. AUSA launched a product and Atrápalo.com a business (urban leisure) not so "attractive" for the established competitors, Naturhouse used causal ambiguity in such a way that the established competitors ignored the business innovation, and Atrápalo.com and Naturhouse, respectively, attracted as many theatres and opened as many shops as

possible early and quickly to corner the market and prevent the entry of newcomers. The three firms were told “you are crazy.”

From these findings we could derive more theoretical propositions which would also be part of the final theory:

Theoretical proposition 17: good and superior business models enter the market with not so “attractive” value propositions to avoid a competitive response by the established competitors.

Theoretical proposition 18: good and superior business models scale the business model up early and quickly to corner the market and prevent the entry of newcomers.

Theoretical proposition 19: the more the firm is told “you are crazy,” the greater the goodness or superiority of a business model.

Other findings of interest have been:

- The business models are based on clever but simple business ideas which can be expressed in a single sentence (*“the simple and easy ideas are the ones that run. However, what is complex is to find out a simple and easy idea”*).
- Business ideas are formally or informally evaluated in view of some criteria to ensure fit with strategy and values, positioning, or core format. If there is no fit, they may be rejected or launched using other brands or formats.
- Strategic innovation has consisted of making choices on one or more of the following dimensions: who/customer, what/value proposition, how/value chain, and making trade-offs (or “what not to do”) about the products not offered, the customers not targeted, or the activities not performed.
- The mechanism of value generation is clearly determined.
- The firms targeted lead users.
- Be a learning organization is not compulsory for strategic innovation should the process is driven by powerful individuals. By contrast, having absorptive capacity is compulsory.
- Innovation is driven by supply-push processes.
- Manager’s determination was essential to strategic innovation.
- The firms set up separated business units or commercial organizations or used different brands or formats when conflicts could be serious and markets different.
- Established companies created new business models in response of an industry shock, to depart from a vulnerable positioning, or to avoid market erosion and commoditization.
- The models can be replicated on a global basis with local adaptations.
- The only way to find out the potentiality of a new business opportunity is to launch it (*“the [only] way to determine if and how to pursue a new business opportunity is to pursue it”* (Lynn, Morone, & Paulson, 1996).

The ending theory consists of the results of the confirmation, challenge, or extension of theoretical propositions 1 to 11; the new theoretical propositions 12 to 19 derived from the research; and the findings of interest above listed.

If the theory developed had to be evaluated in view of the two Bacharach (1989) criteria, we could conclude that the theory has been constructed such that empirical refutation is possible (falsifiability) and that it can both explain and predict (utility).

As far as the first evaluation criterion is concerned, we could find anywhere anytime a firm whose strategy was made entirely using solely analysis and planning. In regards to the second criterion, we have derived from the theory two procedures to design good and superior business models (see section **10.4. Procedures for entrepreneurs to design good and superior business models**), which can explain how to create good and superior business models and can predict the degree of goodness and superiority of a business model in view of the particular procedure we are using to create it.

The tool and procedures derived from the analysis of the results of the case study are so useful in terms of their capacity to explain and predict as tools well-known in strategic management like Kim and Mauborgne's (2005) strategy canvas, a tool which may help explain how a new value proposition is so appealing and also may predict its future success just looking at the focus and divergence exhibited by the shape of its value curve. Similarly, focus and differentiation in the tool we propose may explain the attractiveness of a new business model and may predict its future success.

We have found some anomalies –outcomes the theory cannot explain, neither literal nor theoretical replications of a theory (Yin, 2003)-, but we have not revisited the entire process, despite anomalies are ways to improve the theory. The three not so conclusive theoretical propositions are in fact anomalies, but they are not central to the research, and we decided not to dig deeper into them.

10.2. CONTRIBUTION TO THE DEVELOPMENT OF THE THEORY

The research problem was to shed light on the question of how good business strategies are made and specifically how good and superior business models are crafted. The research questions to be answered were how and why entrepreneurs and existing firms create and design new business models. The bulk of the research was to provide with insight into the question of whether entrepreneurs and existing firms use formal analysis or rely on the learning from trial-and-error. Additionally, the expected contribution included the provision of tools to help entrepreneurs and firms create new business models, if the conclusion was that strategy is made using analytical tools and frameworks, or alternately the provision of procedures to design experiments and maximize the lessons learned, if the conclusion was that strategy is made using the learning from trial-and-error. Finally, we expected to confirm that existing firms carry out strategic innovation as a response to the competitive pressure.

We have been able: (i) to **prove that firms make their strategies and craft their business models using the learning from trial-and-error**; (ii) to **prove that they do not use analytical tools and frameworks**; and (iii) to **provide with a tool and procedures for entrepreneurs to design good and superior business models**. They constitute the main contribution to the development of the theory.

By contrast, we have been unable to shed light on the question of how firms make the choices of their business models. Since the firms we have studied do not use formal analysis, we have been unable to provide with tools to help entrepreneurs and firms to create new business models following analysis and planning. Since the firms, despite relying on the learning from trial-and-error, do not plan for trial-and-error, we have been unable to provide with a procedure to guide experimentation such as the discovery-driven planning and similar approaches of the review of the literature. In addition, we have been unable to provide with any tool or procedure to solve one of the problems of experimentation, the fact that after a negative outcome we learn what not to do but we do not learn what to do to obtain a positive outcome in the next experiment.

We wanted to provide with tools to help entrepreneurs and firms to create new business models following analysis and planning or to provide with a procedure to guide experimentation such as the discovery-driven planning. We have been able to do neither one nor the other, but by contrast we have derived a tool and procedures for entrepreneurs to design good and superior business models either being part of an established industry or “creating” a “new” industry from scratch.

As far as the second research question is concerned –why entrepreneurs and existing firms create and design new business models- the results have not been conclusive because we have not paid quite attention to the question in the research design. In fact, none of the theoretical propositions of section **6.1. Theoretical Propositions** referred explicitly to this research question. During the first stage of the research we saw that the motives to create a new business model were so varied that it would have been impossible to replicate the findings across the three case studies: (i) AUSA PTV business model and Atrápalo.com business models were created by the entrepreneurial desires of the founders; AUSA dumpers and forklifts business model was created as a result of an industry shock, following a desire to survive, and to leverage an

accumulated know-how and take advantage of an inventory of parts; AUSA EcoSite business model was created as part of a sustainability plan to depart from the Spanish construction industry; finally, Naturhouse is the only business model created as a response to the competitive pressure, the statement we expected to confirm through the research.

Confirm theoretical propositions 1, 2, 3, 7, and 9, reject theoretical propositions 6 and 8 (and confirm their rival counterparts), and challenge theoretical propositions 5, 10, and 11, have been the first contribution of the research.

Thanks to the research, we have confirmed that opportunity recognition relies on personal intuition, individual initiative and capacity, and informal systems (theoretical proposition 1), that opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge (theoretical proposition 2), that good or superior business models are crafted using the learning from trial-and-error (rival proposition 2 of the theoretical proposition 6), that formal and informal strategy making are not substitutes for one another (theoretical proposition 7), that trial-and-error learning is not planned (rival proposition of the theoretical proposition 8), and finally that good or superior business models deliver a new solution for an unmet market need (theoretical proposition 9).

Before the research, the initial theory stated that either the theoretical propositions or their rival counterparts could apply. For instance, as far as theoretical proposition 6 is concerned, and in view of the statements of the initial theory, we hypothesized that good or superior business models: (i) could be developed through analysis and planning using analytical tools and frameworks and refined through the learning from trial-and-error; (ii) could be developed solely through analysis and planning using analytical tools and frameworks; and (iii) could be crafted using the learning from trial-and-error. We could not confirm one of the three theoretical propositions and reject the other two without conducting a research. Since rival proposition 2 applies to the three firms we have studied, thanks to the case study research we have been able to confirm rival proposition 2 and to reject both the original theoretical proposition and rival proposition 1 and, hence, to develop the theory beyond the initial theory.

The same reasoning applies to the other theoretical propositions. The initial theory stated that either the theoretical propositions or their rival counterparts could apply, and thanks to the case study research we have been able to confirm and reject either the theoretical proposition or the rival proposition and, hence, to further develop the initial theory.

Another contribution to the development of the theory has been the confirmation that prior specific knowledge is a pre-requisite for opportunity discovery. In the case studies there is evidence that it had been almost impossible to recognize the business opportunities without a systematic search constrained to the prior knowledge of the entrepreneurs in their domains. Despite we had not converted this statement into any theoretical proposition before conducting the research, the results are so conclusive that we have to include the statement as a further development of the initial theory and, therefore, as another contribution of the research.

As far as theoretical proposition 3 is concerned, the main contribution of the research consists of two statements: (i) the barriers to imitation created by causal ambiguity explain part of the success of the business models and, hence, part of their goodness and superiority and (ii) the only way to continue enjoying a sustained competitive advantage after the extinction of the causal ambiguity that supported the barriers to imitation is having cornered the market by deploying the business model early and quickly to prevent the entry of newcomers. The initial theory just said that firms use causal ambiguity to raise barriers to imitation that allow them to enjoy a sustained competitive advantage. The two mentioned statements are further developments of the initial theory.

However, the most important contributions to the development of the theory are theoretical proposition 12, an extension or a refinement of theoretical proposition 6, and theoretical propositions 13 to 16, an extension or a refinement of theoretical proposition 4. Thanks to the research we have been able to enrich both theoretical propositions 4 and 6.

In the research we have not found evidence of the use of a rational process and the use of analytical tools and frameworks to make the choices of the business model. Rather, we have seen that the decision-maker has relied on his judgement and has used improvisation and effectuation processes, and that strategies have formed gradually, choice by choice; in short, that intuition –operating with choices made without formal analysis- seems to be the common practise. Those findings have brought us to state that good and superior business models can be designed without using a rational process or without using analytical tools and frameworks. By contrast, good and superior business models can be designed relying on the entrepreneur's judgement and using improvisation and effectuation processes; and, hence, following haphazard, non-systematic approaches. Before conducting the research we had theoretical proposition 6 and two rival propositions. Thanks to the research we have confirmed rival proposition 2, rejected the original theoretical proposition and rival proposition 1, and derived a new theoretical proposition, theoretical proposition 12. This has been the contribution to the development of the theory as far as the way business models are designed.

The research has also brought us to conclude that the companies have business models with clear and explicit choices from different dimensions that reinforce each other and create virtuous cycles; the company's strategy differs from that of their competitors; choices are firmly kept and the companies refuse any departure ("siren song") from the business model; the choices of the focal company are the **opposite** of those of the competitors, and the business model of the focal company **contrasts** with the business models of the rivals; opposite choices and contrasting business models, together with strengthening virtuous cycles, could explain part of the success of the business models and, hence, part of their goodness and superiority; most of the business models are also **conflicting** since they target the same markets and customer segments and possess ways to weaken and interrupt the other's virtuous cycles. From these statements we have derived theoretical propositions 13 to 16. The extent of the contribution to the development of the theory can be assessed by comparing them to the initial theoretical proposition:

The more clear and explicit the choices of a business model, and the more differing from those of the competitors; and the more

strengthening the virtuous cycles, the greater the goodness or superiority of the business model.

Additional contributions are theoretical propositions 17 to 19 and the statements listed under the headline “other findings of interest.”

The final conceptual framework described in the next section, which is a transformation from the initial conceptual framework, is also the result of the research and, hence, a contribution.

The tool and procedures to design good and superior business models described in section **10.4. Procedures for entrepreneurs to design good and superior business models** are also a contribution of the research.

Finally, the inability to shed light on the question of how firms make the choices of their business models is another contribution of the research, since it has opened our eyes to new research opportunities in the form of a longitudinal case study centred on how choices are made when a business model is crafted (see chapter **12. Future Research Areas**).

10.3. FINAL CONCEPTUAL FRAMEWORK

One of the outcomes of the research is a final conceptual framework built putting together some of the constructs of the initial conceptual framework but taking into consideration the results of the research and, hence, the statements of the ending theory.

The final conceptual framework is, therefore, a summary of the essentials of the research.

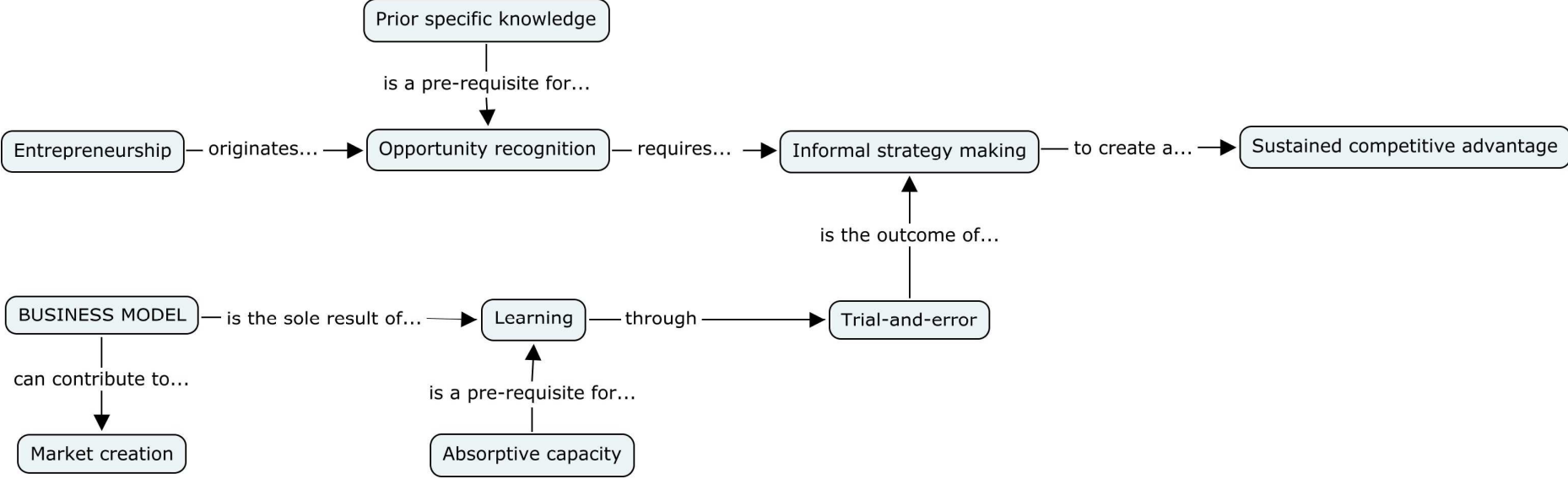
If we compare the final conceptual framework with the initial extended framework of section **2.2. Extended Framework**, we will notice that the framework has evolved with the research, and that: (i) the constructs related to the theoretical proposition 6 and its rival proposition 1 have been removed, and those of its rival proposition 2 have been remarked, and (ii) many other non-relevant constructs have also been removed for simplicity.

The final conceptual framework allows us to articulate the main findings of the research in a few sentences:

“Entrepreneurship” originates “Opportunity recognition” for which “Prior specific knowledge” is a pre-requisite. “Opportunity recognition” requires “Informal strategy making” to create a “Sustained competitive advantage.” “Business models” can contribute to “Market creation.” A “Business model” is the sole result of “Learning” –for which “Absorptive capacity” is a pre-requisite- through “Trial-and-error,” which is the outcome of “Informal strategy making”.

The initial conceptual framework has been useful to guide the research. The final conceptual framework will be useful to communicate the main findings of the research in a brief but appealing manner.

Framework 10.1 Final conceptual framework



10.4. PROCEDURES FOR ENTREPRENEURS TO DESIGN GOOD AND SUPERIOR BUSINESS MODELS

In section 9.2. **Analysis of the Results of the Case Studies** we have identified two procedures for entrepreneurs to design good and superior business models, derived from the cross-case analysis.

The first procedure could be termed “industry analysis” since it starts with an in-depth analysis of the industry in which the focal firm operates. The second procedure could be termed “prior knowledge” since it is based on the premise that the entrepreneur’s prior knowledge is a pre-requisite to identify unmet market needs or pockets of non-consumers, and it starts with a list of all the fields of which the entrepreneur’s prior knowledge consists.

The “industry analysis” procedure is schematized in framework 10.2. **“Industry analysis” procedure**. The strategy consists of eleven steps:

1. Identify the relevant competitors and classify them into types of competition
2. Identify the relevant industry dimensions and the end points of each dimension
3. Indicate in the continuum the choice of each type of competition in each dimension
4. Set the firm’s choice in each dimension in the continuum
5. Identify virtuous cycles created by the firm’s choices
6. Make sure that the firm’s choices reinforce one another
7. Identify potential virtuous cycles created by the choices of each type of competition
8. Assess the extent to which the firm’s virtuous cycles weaken or interrupt the virtuous cycles of each type of competition
9. Find ways to prevent that the virtuous cycles of each type of competition could weaken or interrupt the firm’s virtuous cycles
10. Make the firm’s choices causal ambiguous
11. Set clear and explicit limits to potential departures from the firm’s choices, and list the products not offered, the customers not targeted, and the activities not performed.

We should iterate through steps 4 to 10 until we obtain a consistent business model, one that shares the characteristics of a good and superior business model according to the findings of theoretical proposition 4:

The companies have business models with clear and explicit choices from different dimensions that reinforce each other and create virtuous cycles; the company’s strategy differs from that of their competitors; choices are firmly kept and the companies refuse any departure (“siren song”) from the business model; the choices of the focal company are the **opposite** of those of the competitors, and the business model of the focal company **contrasts** with the business models of the rivals; most of the business models are also **conflicting** since they target the same markets and customer segments and possess ways to weaken and interrupt the other’s virtuous cycles.

In section **9.2. Analysis of the Results of the Case Studies** we already stated that Naturhouse probably followed such procedure, although in an informal and unconscious way. They did not graphed the choices –their choices and those of their competitors- in a continuum, but they had the relevant competitors identified and classified into types of competition, they knew quite well how far they wanted to set their choices from those of the other types of competition, they followed steps 4 to 10 through a process of experimentation –despite they did not referred to virtuous cycles and causal ambiguous choices-, and finally they used a “pruning” approach to set the limits and list the trade-offs (“what not to do”) of step 11.

As we recommend in chapter **12. Future Research Areas**, this framework should be tested conducting a longitudinal case study. The unit of analysis should be companies competing in established industries and willing to create a novel business model.

The “prior knowledge” procedure is schematized in framework **10.3. “Prior knowledge” procedure**. The strategy consists initially of five steps:

1. List all the fields of the entrepreneur’s prior knowledge
2. Identify unmet market needs or pockets of non-consumers in each field of prior knowledge
3. List value propositions in the form of: (i) a new solution for each unmet market need; or (ii) a more appealing solution for non-consumers
4. Think of value chains to deliver the value proposition
5. Verify if there are industries delivering similar value propositions with similar value chains.

If we found industries delivering similar value propositions with similar value chains, we could follow the “industry analysis” procedure described above.

If we did not find similar industries, we should create an “isolated” business model anew following the six-step process showed in the central part of framework **10.3 “Prior knowledge” procedure**:

1. Identify the relevant “new” industry dimensions and the end points of each dimension
2. Set in the continuum the firm’s choice in each dimension
3. Identify virtuous cycles created by the firm’s choices
4. Make sure that the firm’s choices reinforce one another
5. Make the firm’s choices causal ambiguous
6. Set clear and explicit limits to potential departures from the firm’s choices, and list the products not offered, the customers not targeted, and the activities not performed.

In section **9.2. Analysis of the Results of the Case Studies** we said that Atrápalo.com probably followed such procedure, although in an informal and unconscious way and without referring to virtuous cycles and causal ambiguous choices. They took advantage of their prior knowledge of the Internet industry to systematically search for business opportunities. They identified two unmet market needs, the need of theatres to increase their occupancy from Tuesday to Thursday and the need of young people to get price reductions on the theatre tickets, and a pocket of non-consumers, young people with

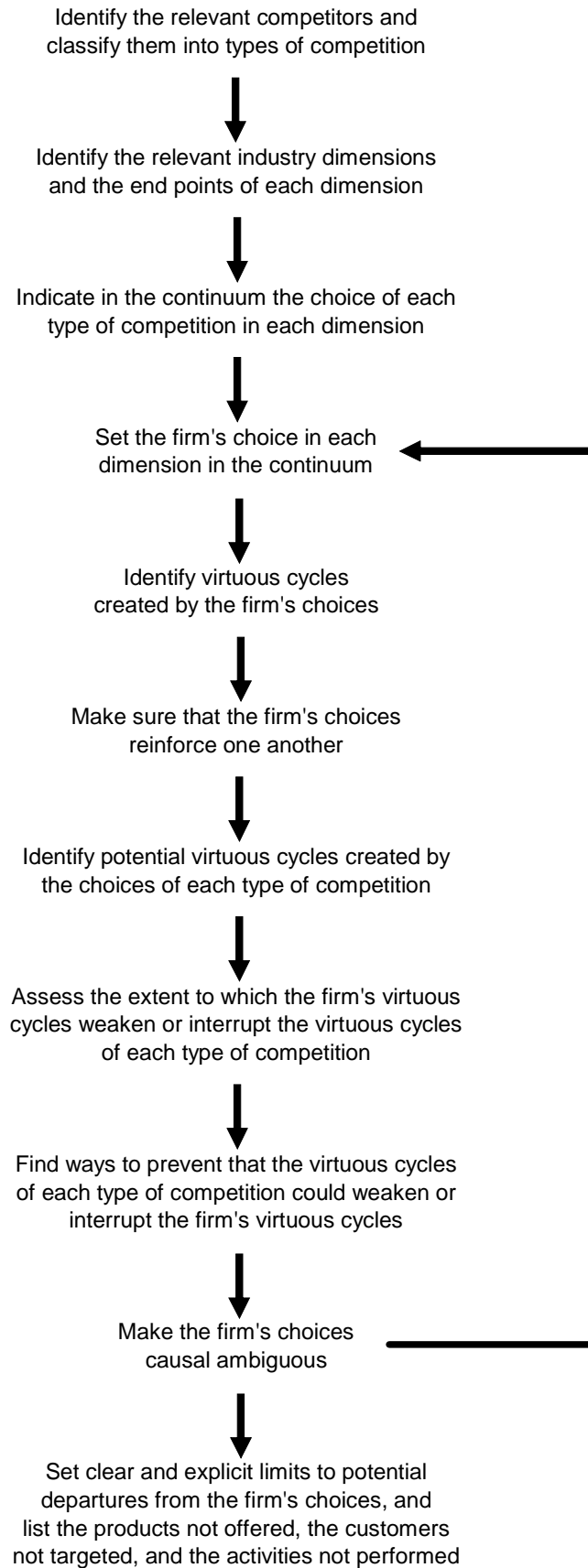
limited budgets. They then defined a value proposition in the form of a new solution and thought of a value chain to deliver it. They found other similar industries –non-transactional portals-, but finally they created an “isolated” business model anew following the six-step procedure.

In a second phase, companies trying to create an “isolated” business model anew could follow a five-step procedure to insulate the new business model against the actions of potential newcomers that still do not exist. The steps are shown in the right side part of framework **10.3 “Prior knowledge” procedure**:

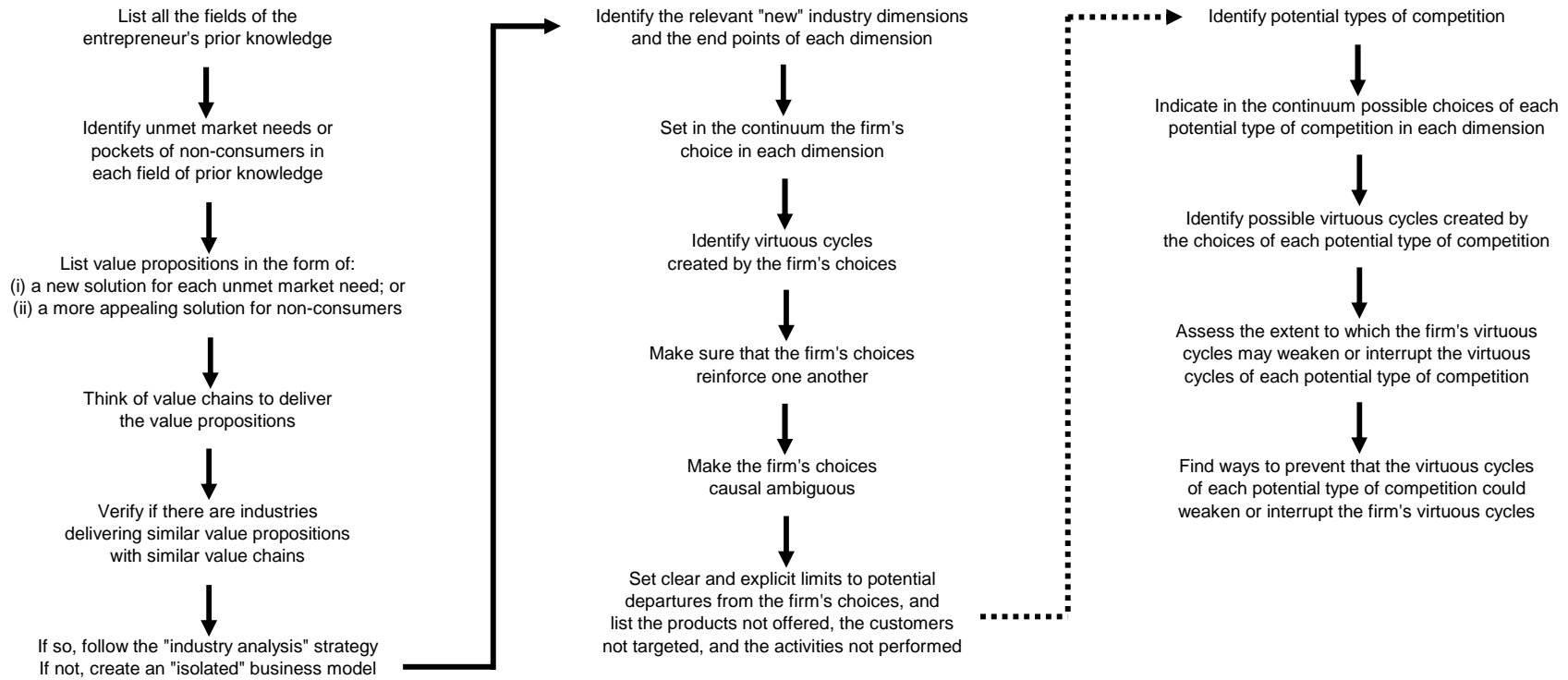
1. Identify potential types of competition
2. Indicate in the continuum possible choices of each potential type of competition in each dimension
3. Identify possible virtuous cycles created by the choices of each potential type of competition
4. Assess the extent to which the firm’s virtuous cycles may weaken or interrupt the virtuous cycles of each potential type of competition
5. Find ways to prevent that the virtuous cycles of each potential type of competition could weaken or interrupt the firm’s virtuous cycles.

As we recommend in chapter **12. Future Research Areas**, this framework should be tested conducting a longitudinal case study. The unit of analysis should be companies having identified a new value proposition in the form of a new solution for an unmet market need or a more appealing solution for non-consumers.

Framework 10.2. “Industry analysis” procedure



Framework 10.3. "Prior knowledge" procedure



11. CONCLUSIONS

From the case study research we have concluded that: (i) firms make their strategies and craft their business models using the learning from trial-and-error and that (ii) they do not use analytical tools and frameworks.

In the research we have not found evidence of the use of a rational process and the use of analytical tools and frameworks to make the choices of the business model. Rather, we have seen that the decision-maker has relied on his judgement and has used improvisation and effectuation processes, and that strategies have formed gradually, choice by choice; in short, that intuition –operating with choices made without formal analysis- seems to be the common practise. Those findings have brought us to state that good and superior business models can be designed without using a rational process or without using analytical tools and frameworks. By contrast, good and superior business models can be designed relying on the entrepreneur's judgement and using improvisation and effectuation processes; and, hence, following haphazard, non-systematic approaches.

From the research we have also concluded that the companies studied have business models with clear and explicit choices from different dimensions that reinforce each other and create virtuous cycles; that the company's strategy differs from that of their competitors; that choices are firmly kept and the companies refuse any departure ("siren song") from the business model; that the choices of the focal company are the **opposite** of those of the competitors, and the business model of the focal company **contrasts** with the business models of the rivals; that opposite choices and contrasting business models, together with strengthening virtuous cycles, could explain part of the success of the business models and, hence, part of their goodness and superiority; and finally that most of the business models are also **conflicting** since they target the same markets and customer segments and possess ways to weaken and interrupt the other's virtuous cycles.

We have also concluded from the three cases studied that the barriers to imitation created by causal ambiguity explain part of the success of the business models and, hence, part of their goodness and superiority and that the only way to continue enjoying a sustained competitive advantage after the extinction of the causal ambiguity that supported the barriers to imitation is having cornered the market by deploying the business model early and quickly to prevent the entry of newcomers.

These conclusions refer to the first of the two research questions: **how** entrepreneurs and existing firms create and design new business models.

The fact that the studied firms did not use analytical tools and frameworks has prevented us to provide with tools to help entrepreneurs and firms create new business models; the fact that the studied firms did not plan for trial-and-error learning has prevented us to provide with procedures to design experiments and maximize the lessons learned. By contrast, we have been able to provide with a tool and procedures for entrepreneurs to design good and superior business models either being part of an established industry or "creating" a "new" industry from scratch.

Other conclusions refer to business opportunity recognition. We have shown that as far as the three firms studied is concerned opportunity recognition relied on personal intuition, individual initiative and capacity, and informal systems; that opportunities can only be recognized by systematic search constrained to the entrepreneur prior knowledge, and that prior specific knowledge is a pre-requisite for opportunity discovery.

As far as the second research question –**why** entrepreneurs and existing firms create and design new business models- is concerned, we have concluded that the motives may be varied, included –but not limited to- the response to competitive pressure.

Another conclusion is the confirmation that good or superior business models deliver a new solution for an unmet market need. It is especially important for entrepreneurs and existing firms willing to create and design new business models. If they wish to craft a novel business model, they should seek for new solutions rather than known solutions to fulfil unmet market needs. Trying to fulfil unmet market needs with conventional solutions will probably end up in conventional business models.

12. FUTURE RESEARCH AREAS

We have identified three future research areas: (i) confirm, challenge, or extend the new theoretical propositions derived as part of the ending theory; (ii) conduct a case study research to test the two procedures of section **10.4. Procedures for entrepreneurs to design good and superior business models**; and (iii) conduct a longitudinal case study of business models in progress to answer the question: “how did you make your firm’s choices?”

In section **10.1. Ending theory** we submit eight new theoretical propositions derived from the research to be confirmed, challenged, or extended. The first refers to the way entrepreneurs design good and superior business models. Four refer to the choices and virtuous cycles that configure good and superior business models. The remaining three refer to ways to avoid a competitive response and prevent the entry of newcomers.

Additional to these new theoretical propositions, other findings of interest are listed; they could be other research opportunities.

The second future research area would consist of conducting a case study research to test the mentioned procedures to design novel business models. There were two different typologies of cases to study: (i) business models **to be designed** by established firms in a stable industry and (ii) business models **to be designed** by entrepreneurs who have recognized a business opportunity by identifying unmet market needs or pockets of non-consumers. The unit of analysis in both cases would be the novel business model rather than the company. Note the emphasis on “to be designed.” In order to test the feasibility of both procedures and assess their explanatory and predictive power, we need to conduct a longitudinal case study covering the time period between the inception of the business models and their commercial success/failure. Since we need to replicate the findings, at least three cases should be selected for each of the two typologies.

Another longitudinal case study should be conducted to shed light on the issue of how choices are made when a business model is crafted. In the present research we have not obtained conclusive data because choices were made long time ago and the interviewees did not remember how they made them, or because choices were made by intuition and recorded information simply does not exist. In any case, in the present research we have asked the interviewees to evoke non-contemporary events. In the new longitudinal case study the unit of analysis would be business models **in progress** and, therefore, we would refer to contemporary events. Note the emphasis on “in progress.” In order to shed light on the issue of how choices are made, we need to conduct a longitudinal case study covering the time period between the inception of the business models and their commercial launch. Since we need to replicate the findings, at least three cases should be selected.

Both longitudinal case studies can not be conducted simultaneously over the same firms. Otherwise, our proposed procedures could influence the way the managers are making their choices. Therefore, both studies should be independently conducted.

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