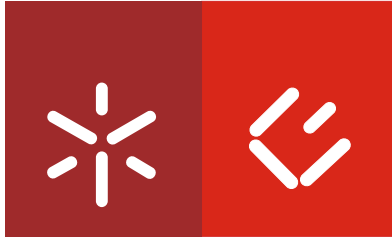


Universidade do Minho
Escola de Economia e Gestão

Elisabete Maria Sampaio de Sá

**Entrepreneurial versus managerial marketing
decision making processes in the context of
uncertainty from the perspective of the
effectuation theory**

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effectuation theory**

Doctoral thesis in Marketing and Strategy

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Abstract

Entrepreneurial marketing has been attracting growing interest, although it is a fairly young research subject. Its relevance results, on the one hand, from the evidence that small and entrepreneurial firms' marketing practices often differ from the generally accepted textbook prescriptions, adapting marketing concepts so as to make them more adjusted to their needs. On the other hand, managerial marketing has been the target of some criticism for losing topicality in the complex and fast changing and sometimes chaotic, current business environment. Therefore, developments in marketing/entrepreneurship interface not only can help entrepreneurial firms benefiting more from marketing, but can also offer marketing new perspectives to regain significance in a broader context.

The current study aims at contributing to deepen the understanding about the entrepreneurial marketing concept, which is still underdeveloped. Previous research has been focusing mainly on describing the entrepreneurial marketing practices and their characteristics. We propose shifting the focus from the marketing activities themselves to what shapes them, that is, the entrepreneurial marketing decision making process and its cognitive conditions. Based on such conceptualization, the study draws on the cognitive approach to entrepreneurship, particularly the effectuation theory, which inverts the causal rationality underlying the mainstream marketing thought.

The Critical Incident Technique was used to collect rich contextualized data about marketing decisions made by entrepreneurs. Results allowed designing an entrepreneurial marketing framework that differs in a great extent from the typical managerial marketing process. Furthermore, we were able to understand how entrepreneurs make marketing decisions and that different types of marketing practices are associated to different decision logics. We also found that the cognitive conditions to decide, namely the level of information available and the processing capacity, affect the marketing decision process and its effects on business development.

The study offers several contributions for theory, practice, marketing teaching and policy making. Particularly, it contributes for advancing the understanding of the notion of marketing-in-context by proposing that entrepreneurial marketing and managerial marketing can work in a complementary manner or alternatively in different circumstances.

Resumo

O marketing empreendedor tem vindo a atrair interesse crescente, pese embora ser um tópico de pesquisa relativamente jovem. A sua relevância resulta, por um lado, da evidência de que as pequenas empresas e, particularmente, os novos negócios, distanciam-se muitas vezes das prescrições dos manuais de referência, ajustando os conceitos de marketing às suas necessidades. Por outro lado, o marketing tradicional tem sido acusado de estar a perder atualidade no ambiente de negócios, complexo, por vezes caótico e em rápida mudança em que vivemos hoje. Desta forma, a evolução do conhecimento na zona de interface marketing/empreendedorismo não só pode contribuir para que as empresas empreendedoras beneficiem mais do marketing, como também pode oferecer novas perspetivas ao marketing para que possa reativar a sua relevância num contexto mais amplo.

O presente estudo visa contribuir para aprofundar a compreensão sobre o conceito de marketing empreendedor, o qual está ainda subdesenvolvido. Investigação anterior tem-se focado principalmente na descrição das práticas de marketing empreendedor e das suas características. Nesta investigação propomos mudar o foco das atividades de marketing para o que lhes dá forma, ou seja, para o processo de decisão de marketing pelos empreendedores e as suas condições cognitivas. O estudo baseia-se na abordagem cognitiva ao empreendedorismo, em particular na teoria da efetivação, que inverte a racionalidade causal subjacente ao pensamento de marketing predominante.

A Técnica do Incidente Crítico foi utilizada para recolher informação rica e contextualizada sobre decisões de marketing tomadas por empreendedores. Os resultados oferecem uma proposta de processo de marketing empreendedor, que realça importantes diferenças relativamente ao típico processo de gestão de marketing. Além disso, foi possível compreender o modo como os empreendedores tomam decisões e que diferentes tipos de marketing estão associados a diferentes lógicas de decisão. Identificamos também que as condições cognitivas para tomar decisões, particularmente o nível de informação disponível e a capacidade de processamento da mesma, afetam o processo de decisão de marketing e os seus efeitos no desenvolvimento do negócio.

O estudo oferece várias contribuições para a teoria, para a prática, para o ensino do marketing e para as políticas de apoio ao empreendedorismo. Particularmente, os resultados contribuem para o avanço da compreensão da noção de marketing-em-contexto, propondo que o marketing empreendedor e o marketing tradicional podem funcionar de forma complementar ou alternativamente, em diferentes circunstâncias.

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Acronyms

3D – Three Dimensional
AMR – Academy of Management Review
B2B – Business to Business
B2C – Business to Consumer
CAQDAS – Computer-assisted Qualitative Data Analysis Software
CAU – Causal decision making logic
CEO – Chief Executive Officer
CIT – Critical Incident Technique
EFF – Effectual decision making logic
EM – Entrepreneurial Marketing
EUR – Euro currency
H – Hypothesis
MAN – Managerial marketing
MBA – Master of Business Administration
NPD – New Product Development
NSRF – National Strategic Reference Framework
PhD – Philosophiae Doctor (Doctor of Philosophy).
R&D – Research and Development
RP – Research Proposition
SD – Standard Deviation
SMEs – Small and Medium-sized Enterprises

We are still the masters of our fate. Rational thinking, even assisted by any conceivable electronic computers [sic], cannot predict the future. All it can do is to map out the probability space as it appears at the present and which will be different tomorrow when one of the infinity of possible states will have materialized. Technological and social inventions are broadening this probability space all the time; it is now incomparably larger than it was before the industrial revolution, for good or for evil. The future cannot be predicted, but futures can be invented. It was man's ability to invent which has made human society what it is.

The mental processes of inventions are still mysterious. They are rational but not logical, that is to say, not deductive. The first step of the technological or social inventor is to visualize by an act of imagination a thing or a state of things which does not yet exist and which to him appears in some way desirable. He can then start rationally arguing backwards from the invention and forward from the means at his disposal until a way is found from one to the other.

[Dennis Gabor, inventor of holography, Nobel Prize in Physics of 1971
Inventing the Future, 1963, p. 161].



INTRODUCTION

Some criticism has been directed to marketing for losing ground to other disciplines because it is falling behind in relevance within the fast changing environment in which we live today (Reibstein, Day & Wind, 2009). In fact, literature in basic marketing principles, which remains fundamentally the same as in the 1960's, serves better large multinational bureaucratic firms acting in more stable business environments than new entrepreneurial firms that act in highly uncertain scenarios (Hultman & Hills, 2001). This thesis focuses on entrepreneurial marketing, which intends to respond to calls for advances in the marketing field so as to make its concepts and tools more relevant to small, new, and entrepreneurial firms (Kraus, Filser, Eggers, Hills & Hultman, 2012; Carson & Gilmore, 2000a).

1. Introduction

Previous research shows that marketing practices vary across firms' sizes (Coviello, Brodie & Munro, 2000). It was found that, in small companies, marketing practices are more intuitive, informal, with focus on sales and on relationship building, differing, most of the times, from textbook prescriptions (Reijonen, 2010; Walsh & Lipinski, 2009; McCartan-Quinn & Carson, 2003; Carson & McCartan-Quinn, 1995). In fact, there is evidence that some small firms adapt the marketing theories for making them more relevant to their way of doing business (Carson & Gilmore, 2000a).

Although marketing practices in small firms have long gained the scholars' attention (e.g. Farhangmehr, 1991; Carson, 1985; Ford & Rowley, 1979), only more recently did marketing researchers direct their focus specifically to small entrepreneurial firms, to highlight the differences between the so-called administrative marketing versus entrepreneurial marketing (Morrish, Miles & Deacon, 2010; Hills, Hultman & Miles, 2008). Traditionally, entrepreneurship and marketing are regarded as two separate research fields with little cross-disciplinary fertilization (Webb, Ireland, Hitt, Kistruck, & Tihanyi, 2011). However, the realization that entrepreneurial firms have distinct characteristics and needs that shape their marketing activities has motivated researchers to explore the marketing and entrepreneurship interface through the entrepreneurial marketing concept, developing proposals to make marketing more relevant to entrepreneurs (Gilmore, Carson & Grant, 2001; Carson & Gilmore, 2000a; Stokes, 2000a).

Generally, entrepreneurial marketing is described in literature as being change oriented and proactive, focusing on innovation, opportunity creation and value exploration (Mort, Weerawardena & Liesch, 2012; Hills, Hultman & Miles, 2008; Maiti, 2006; Collinson & Shaw, 2001; Carson & Gilmore, 2000a; Stokes, 2000a). Entrepreneurial marketing is intrinsically related to relationship building and networking (Zontanos & Anderson, 2004) and generally disconnected from formal marketing intelligence (Jones, Suoranta & Rowley, 2013). Managerial marketing, on the other hand, as conveyed by reference textbooks, is more sequential and planned, focusing predominantly in opportunity recognition and value exploitation (e.g. Kotler & Armstrong, 2010; Kotler, Keller, Brady, Goodman & Helsen, 2009).

Entrepreneurial marketing, as a field of study, is still in its infancy and, despite the fact that literature in this area of research has grown in significance since the 1980's, knowledge is rather scattered, research results are fragmented, still lacking a comprehensive theory, and the construct remains underdeveloped (Hills & Hultman, 2011; Gruber, 2004). Hills and Hultman (2011) posit that research is in an exciting stage of development and expect that the future will be fruitful in terms of conceptual and integrative research.

Previous studies on the marketing/entrepreneurship interface have been attempting to identify the core elements that constitute the entrepreneurial marketing construct mainly by describing how new ventures implement marketing activities (e.g. O'Dwyer, Gilmore & Carson, 2009; Coviello, Brodie & Munro, 2000; Stokes, 2000a, 2000b). Our study, however, proposes to develop the understanding of the concept by focusing on the entrepreneur's marketing decision making process. Bearing in mind that entrepreneurial marketing is established upon the decision makers' capabilities to perform it (Carson & Guilmore, 2000a), the study is framed by a cognitive approach.

The relevance of building conceptual links between entrepreneurship and other fields, such as cognitive science, is recognized to provide an important contribution to broaden conceptual and theoretical tools within the field of entrepreneurship (Baron, 2009). We believe that such benefits can also be extended to entrepreneurial marketing. Particularly, the effectual logic of entrepreneurial decision making (Perry, Chandler & Markova, 2012; Read & Sarasvathy, 2005; Sarasvathy & Dew, 2005, 2008; Sarasvathy, 2003, 2001) is used as a guide to both deepen the understanding of the entrepreneurial marketing decision making process and the subsequent marketing practices.

The key characteristic of the effectuation theory is that it inverts the causal rationality that strongly dominates the traditional marketing discipline (Kraus et al., 2012; Sarasvathy, 2001). While rational choice is based on a logic of prediction, effectuation lays on a logic of non-predictive control, i.e., causal rationality assumes that «To the extent we can predict the future, we can control it», while effectual rationality is based on the belief that «To the extent we can control the future, we do not need to predict it» (Read & Sarasvathy, 2005, p. 50). Effectuation is a way of entrepreneurial thinking that can shape behaviour (Chandler, DeTienne, McKelvie & Mumford, 2011) and may explain how and why one person's behaviour, including marketing actions, is different from another's (Sarasvathy & Dew, 2008).

Read, Dew, Sarasvathy, Song and Wiltbank (2009) assert that effectual logic brings texture to the entrepreneurial spirit of marketing and they also highlight that effectuation overlaps with the ways marketing theories are evolving. Therefore, effectuation offers an interesting perspective to explore the entrepreneurial marketing concept. In fact, literature suggests that marketing activities, resulting from entrepreneur's decisions, are influenced by the underlying reasoning and that entrepreneurial marketing tends to follow an effectual logic, whereas managerial marketing is geared by a causal logic (Dew, Read, Sarasvathy & Wiltbank, 2009a; Read et al., 2009).

There is some evidence supporting the relationship between effectuation and new ventures' performance (Read, Song & Smit, 2009; Forster & York, 2008), but whether entrepreneurial marketing, following an effectual rationality, yields new ventures greater benefits than managerial marketing following a causal perspective has not yet been explored. Sarasvathy (2001) admits that the effectual approach may not be adequate in all entrepreneurial circumstances, noting that causation may well be a better or more effective process when the target market is known and the context is more stable. Similarly, different development stages of the firm might require different decision making logics. Sarasvathy (2001) proposes that «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 practices in recruitment and training of employees» (p. 261). Thus, this study aims not only at exploring the relationship between entrepreneurial marketing practices and their underlying decision making logics, but also at understanding the circumstances under which they are applied and the results they produce in different contexts.

Just as effectuation is not proposed as a deviation from causation, but an alternative way of thinking (Sarasvathy, 2001), in our study we explore the possibility of entrepreneurial marketing not being a deviation but, rather, an alternative to managerial marketing that can fit particular spatial and temporal contexts, although it might not be the best approach in all circumstances. When proposing the effectuation theory, Sarasvathy (2001) noted that the circumstances under which each logic provides particular advantages and disadvantages was something that should be explored through empirical studies. Although literature on effectuation has been prolific over the past few years (Ghorbel & Boujelbène, 2013), this question has not yet been cleared. Exploring entrepreneurial marketing from the effectuation theory perspective is expected to also contribute to shed some light into this issue.

1.1. Purpose and scope of the study

By building a conceptual bridge between effectuation and entrepreneurial marketing, we seek to answer the following research questions: a) **How does the decision making process of the entrepreneurs and their cognitive conditions influence entrepreneurial marketing practices?** and b) **What effects do entrepreneurial marketing practices have on business development?**

One of the main objectives of the current study is to contribute to the development of the entrepreneurial marketing concept, by addressing the marketing decision making process of the entrepreneurs and its influences. We intend not only to describe the marketing practices resulting from such decision processes, but also to understand the very decision process and the cognitive mechanisms involved. Ultimately, we aim at knowing the effects that entrepreneurial marketing versus managerial marketing have on business development and identifying the circumstances under which each approach is more suitable.

Therefore, four elements, represented in Figure 1.1. constitute the scope of the study. The primary focus is on marketing practices, so as to deepen the understanding about how entrepreneurial marketing differs from managerial marketing, as traditionally prescribed by textbooks. The second element is related to the decision making logics. This study is based on the assumption that different logics underlie different marketing approaches. Particularly, literature suggests that entrepreneurial marketing practices resonate the effectuation logic and principles, whereas managerial marketing tends to follow a causal decision making logic. Another element considered in the study concerns the conditions that set the context for the entrepreneurial marketing decision making process and practices. Considering that the research draws on the cognitive approach to entrepreneurship, the concept of conditions to decide refers to the level of uncertainty, determined by information availability and processing capacity, which imposes limits to the human capability to decide optimally (Simon, 1991; 1979, 1955). The terms *conditions to decide*, *context* and *circumstances* are used interchangeably throughout this thesis to denote the constraints of the entrepreneurial marketing decision process and practices. In order to understand the importance of such conditions, a fourth element is considered in the study. This element regards the effects of the entrepreneurial marketing decision process on business development, which are analysed taking the context into account.

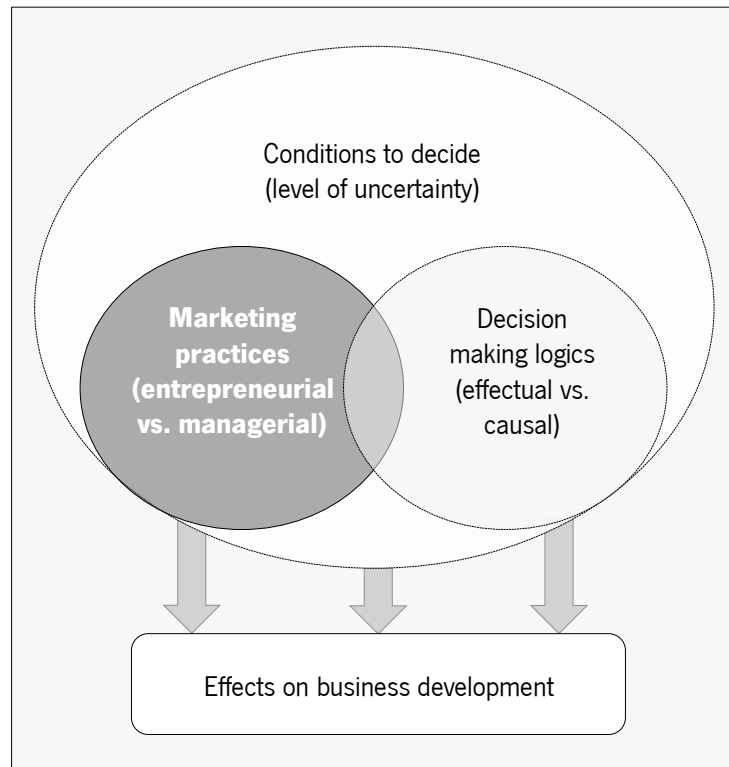


Figure 1.1. Scope of the study

1.2. Methodology and relevance of the results

So as to fulfil the intent of understanding the entrepreneurial marketing decision making process and its effects in context, the study predominantly adopts a qualitative approach. Such an approach allows the emergence of a holistic dimension of the entrepreneurial marketing phenomena (Hill & McGowan, 1999) and enables a deeper understanding about the entrepreneurial unique circumstances for implementing marketing (Hill & Wright, 2001). Additionally, a predominately qualitative methodology is appropriate to the level of theoretical development in the field. Both entrepreneurial marketing and the supporting theory of effectuation are still looking for further delimitation and validation (Perry, Chandler & Markova, 2012; Hills & Hultman, 2011).

However, from a pragmatic and technical perspective, both qualitative and quantitative methods of data analysis are suitable to our research questions (Feilzer, 2010; Johnson & Onwuegbuzie, 2004), which involve understanding the decision making process, but also to explore the relationships with its conditions and effects. By using mixed methods, we aimed at benefiting from the complementarities of their strengths (Goering & Streiner, 2013; Azorín & Cameron, 2010) to

reach the level of depth needed to generate knowledge about the influences on the marketing decision making processes within the entrepreneurial context (Carson & Coviello, 1996).

The research uses the Critical Incident Technique (CIT), which allows acquiring data that can be analysed both qualitatively and quantitatively, even when a subjective methodology is used for data collection (Chell & Pittaway, 1998). Because it focuses on real-life human experiences, CIT is capable of yielding rich contextualized data about those experiences (Hughes, 2007), which is appropriate to our intents.

Our study's results offer several advancements that can contribute to the entrepreneurial marketing development in two fundamental ways. On the one hand, they can help deepening the understanding about the marketing process that best fits the new firms' conditions. In so doing, we are contributing to the development of knowledge on how new ventures can apply a marketing approach tailored to their special needs, hopefully contributing to increase their chances of success, as suggested by researchers in the domain (Kraus et al., 2012). On the other hand, by exploring the entrepreneurial marketing in context and shedding light on its effects, we are contributing to develop further the concept of marketing-in-context or situation specific marketing (Carson & Gilmore, 2000a). Particularly, our approach suggests that the entrepreneurial marketing context may be described as any highly uncertain marketing decision making situation. Such suggestion allows extending the suitability of entrepreneurial marketing to any uncertain situation, regardless of the type of organization where it takes place; whether it is new, small, entrepreneurial or large and established. In that sense, the study may contribute to both developing knowledge from the *marketing in entrepreneurship* perspective, which is about how marketing should be adapted to small, entrepreneurial ventures, and to exploring further the *entrepreneurship in marketing* area of research that focuses on finding more entrepreneurial ways of doing marketing, which is a less developed perspective (Hansen & Eggers, 2010).

More generally, the present study seeks to contribute to the advancement of entrepreneurial marketing theory that, we believe, will achieve higher prominence even outside the entrepreneurial context. Hills and Hultman (2011) highlight that if we are to progress at marketing/entrepreneurship interface, we still need to develop the concepts that represent the building blocks for theory. The authors also consider that more empirical observations are needed to clarify the theoretical foundations of entrepreneurial marketing and to reveal the complexity of entrepreneurial marketing behaviour. We consider that our results offer interesting insights that contribute for such a purpose.

1.3. Structure of the thesis

The current dissertation is divided into five main parts, as depicted in Figure 1.2. After this introduction, which constitutes the first part, we present a literature review aiming at summarizing the research state-of-the-art in relevant domains for our study. Firstly, we focus on the evolution of the entrepreneurship research and concept. Particularly, we highlight the discussion around whether entrepreneurial opportunities are created or discovered, given the relevance of the topic to our study. For similar reasons, we also focus our attention on the topic of the importance of knowledge-based entrepreneurship. Then, we present an overview of the research on the marketing/entrepreneurship interface and the status of the research domain, as well as several attempts to define the entrepreneurial marketing concept. We also present literature showing the importance of marketing for entrepreneurship, as well as the importance of entrepreneurship for marketing, in addition to previous literature on the characteristics of the entrepreneurial marketing and their influences. The literature review further addresses some aspects of cognitive theory to introduce the effectuation theory, which is described in terms of its components and evolution of research. This second part of the thesis culminates with the presentation of the conceptual framework that gears the empirical study.

The third part is dedicated to the methodology. First, we describe the research questions and the objectives of the study, then the ontological and epistemological positions are presented and afterwards we describe our methodological options. In this part detailed descriptions of the methods used are offered to the reader and the profile of the sample is drawn.

In the fourth part of this thesis, we present the empirical findings of the study. This part comprises six sections. In the first one, the categorized critical incidents found are described. In the second section, we present an entrepreneurial marketing framework based on the marketing process that emerged from the data. In the third section, we explain the entrepreneurial marketing decision process, followed by the conditions to decide, put forward in the fourth section. The fifth section of the findings is dedicated to presenting the effects of the marketing decision making process on business development. The last section presents the quantitative analysis of the results, where some hypotheses are tested.

The last part of this thesis is dedicated to presenting the main conclusions of the study, which are also further discussed. This part also describes the limitations of the study and offer suggestions and avenues for future investigation.

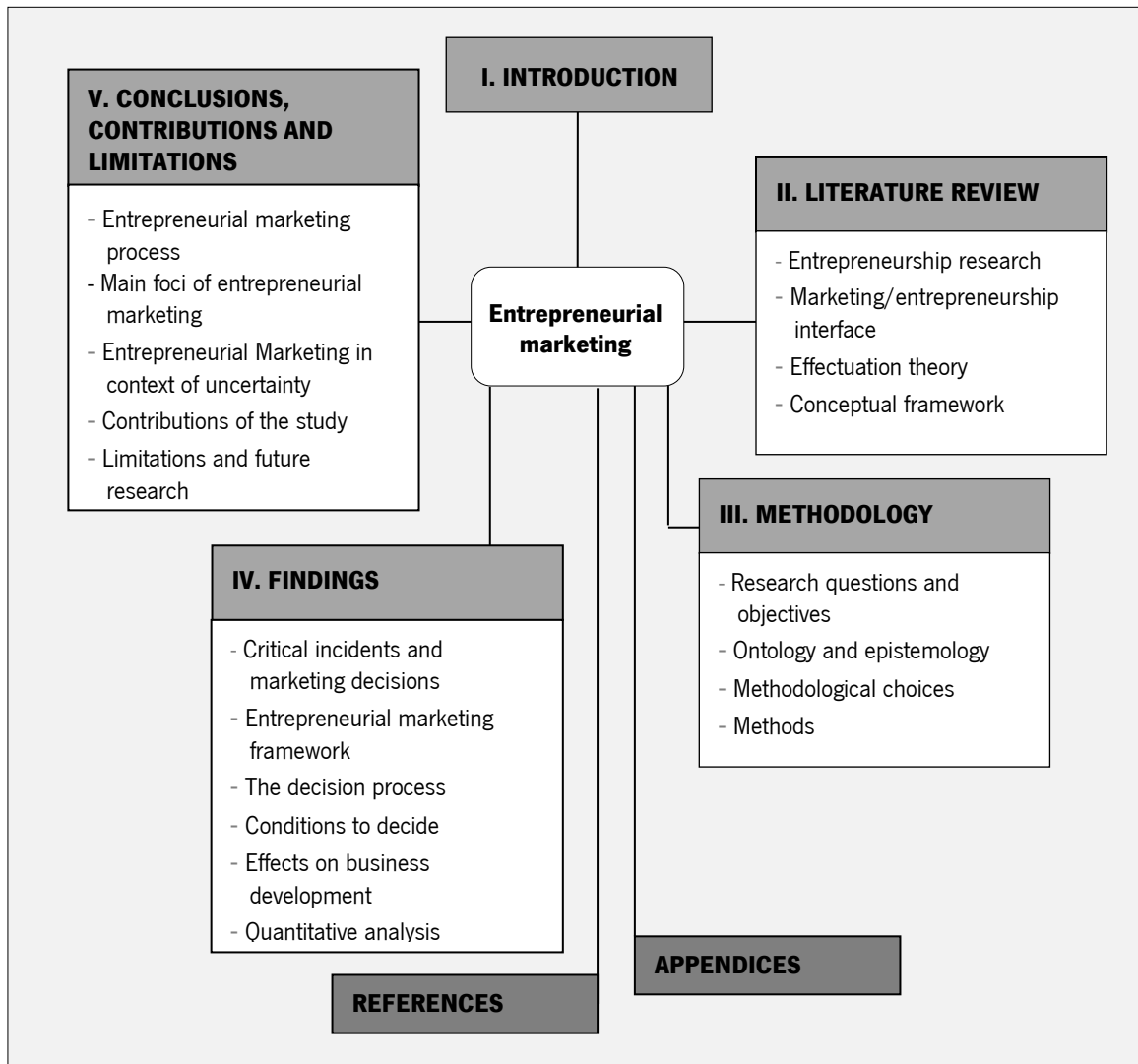
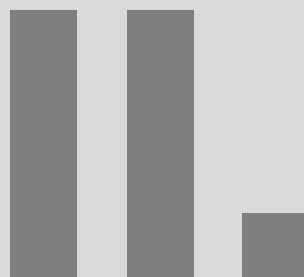


Figure 1.2. Structure of the thesis



LITERATURE REVIEW

Sutton and Staw (1995) assert that «references to theory developed in prior work help set the stage for new conceptual arguments. Authors need to acknowledge the stream of logic on which they are drawing and to which they are contributing» (p. 372). These authors also note, however, that it is necessary to express why the existing theory leads to new theoretical questions. This part of the thesis aims at establishing the foundation for the theoretical contribution of the research and will help setting the grounds for the need and purpose of the study.

Given the fact that the object of our study is the marketing decision making and practices in the entrepreneurial context, we start by presenting a brief overview of the research development on entrepreneurship. We focus particularly on the importance of the knowledge-based entrepreneurship, which is the target of this research for several reasons that will be later explained.

Regarding entrepreneurial marketing literature, we try to outline the origins of the research, the main characteristics of the concept and the context and outcomes of its implementation. Even though much has been done in terms of knowledge development in this area, its progress is still modest comparatively to other areas of traditional marketing, and, thus, further research on the concept, and its use and impact on firms in different contexts, is required (Hills, Hultman & Miles, 2008). In fact, this is an underinvestigated area, given that the focus has been substantially higher on larger organizations (Bettiol, Di Maria & Finotto, 2012).

This study bridges entrepreneurial marketing theory and effectuation theory to suggest a conceptualization of entrepreneurial marketing as a result of a decision making process shaped by particular circumstances, generally characterized by uncertainty. The literature review also sets the theoretical frame for such a suggestion and intends to present a deeper understanding of its relevance. While the results of entrepreneurial marketing are rather scattered and still lacking a comprehensive theory and field definition (Hills & Hultman, 2011; Gruber, 2004), the effectuation theory, despite being first introduced only about one decade ago, is an empirically validated model that provides the starting point for exploring the entrepreneurial marketing decision making process. Since its proposition, a growing body of research has been studying the logic and principles underlying effectuation (Ghorbel & Boujelbène, 2013). The literature review also draws the roots of the effectuation theory in the cognitive approach to entrepreneurship and shows the theoretical consistency between effectuation and entrepreneurial marketing.

2. Literature review: research in entrepreneurship

With the first academic conference specially dedicated to entrepreneurship being held in 1970 and the majority of the scientific studies emerging less than three decades ago, entrepreneurship is still a young research area, but has been attracting increasing interest on the part of academics (Audretsch, 2012; Cooper, 2003). As in every young study field, research boundaries are still unclear and more attention to the topic is called. The seminal work of Shane and Venkataraman (2000) proposed a delineation of the domain of the field, which some researchers believe has created consensus, whereas others still maintain doubts, including one of the authors. In a recent article that aimed at debating the evolution of the field over the last decade, Shane (2012) holds that there is still some substantial work to be done if a distinctive domain of entrepreneurship research is to be achieved.

However, the future of the research area seems to be promising, and entrepreneurship has been emerging as one of the most dynamic and relevant fields within management and the social sciences (Audretsch, 2012). This interest is, in part, due to the acknowledgement that small and new firms are a vital part of the economy, contributing for social and economic development (Li, Yang, Yao, Zhang & Zhang, 2012; Thurik & Wennekers, 2004; Cooper, 2003; Day, 2000). Despite the general agreement on the importance of entrepreneurship, not all types of entrepreneurial firms contribute in the same extent to the economic growth and job creation. In the specific case of knowledge intensive start-ups, literature shows a great deal of contradictions in terms of their growth patterns and internal dynamics (Clarysse & Moray, 2004). Whether a greater focus on marketing can play a role in potentiating these firms will be subject to further debate ahead.

This section presents an overview of how the entrepreneurship field of research has evolved, focusing particularly in the attempts to define the concept. Due to its centrality in the entrepreneurship definition, we also discuss the concept of opportunity creation and opportunity discovery. The importance of knowledge-based entrepreneurship is also considered in this section.

2.1. The entrepreneurship field of research and concept

Despite the enthusiasm surrounding entrepreneurship, its research boundaries are being discussed for quite some time and are not still fully defined; consensus was not yet reached and the discussion about entrepreneurship being or not a *bona fide* field of scholarship is still open and growing more acute over time (Wiklund, Davidsson, Audretsch & Karlsson, 2011; Busenitz, West III, Shepherd, Nelson, Chandler & Zacharakis, 2003). In their AMR Decade Award winning article *The Promise of Entrepreneurship as a Field of Research*, Shane and Venkataraman (2000) point out that perhaps one of the major obstacles to the creation of a conceptual body for entrepreneurship is its very definition. This idea is shared by other researchers, in recognition that there is lack of agreement on the definition of the term, which can even threaten the legitimacy of the field within business research (Kobia & Sikalieh, 2010; Koppl & Minniti, 2003; Bruyat & Julien, 2001).

The word entrepreneurship has been used to define a great variety of perspectives, reflecting the multiplicity of approaches that have arisen from the enthusiastic and rapid emergence of the field (Audretsch, 2012). If, on the one hand, it can be said that entrepreneurship is an attitude, a certain way of being and acting that can be applied in different contexts, including non-profit organizations, public organizations and larger established firms (Phan, Wright, Ucbasaran & Tan, 2009; Morris & Jones, 1999; Zahra, 1993; Covin & Slevin, 1991), on the other hand, the concept appears in a large body of literature associated to new venture creation and small companies innovation. This eclectic view makes the concept both interesting and difficult to define. The ambiguity about the concept results partially from the fact that entrepreneurship emerges at the confluence of different disciplines and it is studied within different disciplines, leading to a large variety of opinions regarding its meaning (Kobia & Sikalieh, 2010). From psychology and sociology to management, finance, and even anthropology, several disciplines have contributed to the study of entrepreneurship (Acs & Audretsch, 2003). Some attempts to define the concept have been made (e.g. Krueger & Brazeal, 1994; Low & MacMillan, 1988), being the one of Shane and Venkataraman (2000) that describes entrepreneurship as the identification, evaluation and exploitation of opportunities, one of the most consensual (Shane, 2012). However, as Audretsch (2012) notes, the «Understanding of the basic construct, entrepreneurship, is anything but unified and singular» (p. 762).

Some definition proposals radiates into the question: why do some people become entrepreneurs while others do not? In general, the answers point towards two different directions. On

one side, to what the entrepreneur *is* and, on the other side, to what he/she *does*, that is, to his/her activities. This duality encompasses two of the most common approaches to the entrepreneurship concept: the traits approach and the behavioural approach. Some research places the focus on the characteristics of the entrepreneur (e.g. Rauch & Frese, 2007a; 2007b), whereas other is concerned with the entrepreneurial process, which is the result of his/her actions (Gartner, 1989).

In the traits approach, the research is interested in unveiling the personality characteristics that define the profile of the entrepreneur that, in turn, 'causes' entrepreneurship. Research on this topic was particularly prolific in the 1980's and early 1990's. Traits such as nonconformity, optimism, vision, intuition, achievement, motivation, experimentation, creativity, openness to change and internal locus of control were proposed (for a comprehensive review of traits approach, see Gartner, 1989). The research results were inconclusive and generally disappointing, though. As Baron (1998) notes, «contrary to what informal observation suggests, entrepreneurs do not appear to differ greatly from nonentrepreneurs with respect to various aspects of personality». (p. 275).

Using as a starting point a work from Carland, Hoy, Boulton & Carland (1984), which intended to distinguish entrepreneurs from small businesses owners, Gartner (1989) openly questioned this perspective. He considers that a behavioural approach will be much more useful and productive for understanding the entrepreneurship phenomenon. Thus, the study and understanding of entrepreneurship should be directed towards the complex process of creating organizations, in which the entrepreneur is only a part of. According to this perspective, the focus must shift from what the entrepreneur is to what the entrepreneur does. The author argues that entrepreneurship is not a way of being, such as 'small business owner' is not a way of being, either. Rather, it can be defined by the set of actions in which entrepreneurs are involved. The author, who has been contributing significantly to the development of the entrepreneurial theory and research methodologies (e.g. Gartner, 2010, 2004; 2001, 1990), is well known for his statement: «Entrepreneurship is the creation of new organizations» (Gartner, 1989: 62). The author did not intend to present this phrase as a definition, but only to direct the focus of analysis from the traits to the behaviour. The creation of an organization takes place in a complex environment and it is the outcome of many influences, including the entrepreneur (Gartner, 1989). The author never denied, thus, the importance of the entrepreneur on the entrepreneurial process; he just defied the effectiveness of the quest for entrepreneurial personalities (Gartner, Shaver, Gatewood & Katz, 1994). Gartner's suggestion for changing the focus from the individual level to the

functional level inspired research towards this direction, even though this shift has not produced agreement regarding the definition of entrepreneurship, either (McKenzie, Ugbah & Smothers, 2007).

Although generally presented as separate perspectives, the psychological and the behavioural approaches do not have to be mutually exclusive. Some research managed to successfully integrate the two in a coherent manner (e.g. Ferreira, Raposo, Rodrigues, Dinis & Paço, 2012). From the behaviourist perspective, entrepreneurship is universally regarded as a multidimensional concept, consisting of several components that cannot be separated from each other. Hence, the entrepreneur will always be part of the concept, in the sense that the process results from the person, his/her cognitive abilities to recognize or create opportunities, and from his/her actions to assess and explore them (Shane & Venkataraman, 2000). As Shane (2012) recognizes, «the field appears to have moved toward consensus around the core idea that entrepreneurship is a process that depends on both opportunities and individuals» (p. 18), rather than an event, such as organizations' creation, or a collection of personal characteristics.

Currently, it is acknowledged that successful entrepreneurs have a wide variety of personality types and that no single psychological model is prevalent. However, both behavioural scientists and investors and entrepreneurs agree that the success of a new business depends greatly on the entrepreneur's talent and behaviour and/or on his/her team (Timmons & Spinelli, 2012). A third approach focuses, then, on the way of thinking and acting of the entrepreneur and on the cognitive processes that distinguish entrepreneurs from other people (Haynie, Shepherd, Mosakowski & Earley, 2010; Mitchell, Busenitz, Lant, McDougall, Morse & Smith, 2002; Baron, 2004; 1998). Human cognitions are how one thinks, reasons, uses language and other symbols, stores information, transforms it and uses it in the future and how one makes decisions (Baron, 1998). In this sense, the cognitive approach emerges as a perspective that seeks to understand the entrepreneur's mindset, exploring the role of the entrepreneur in the formation of new companies. This perspective attempts to understand how entrepreneurs think and why they act in a certain way, that is, how they make decisions. Baron (1998) sustains that entrepreneurs are different from other people, not because they hold different personality features, but because they think and act differently due to the fact that they decide and work under specific conditions that shape their thinking processes. Included in those conditions is the need to face new situations, often involving a high degree of uncertainty. Other factors related to the entrepreneur may also play a role in the entrepreneurial process, such as their motivations, skills, abilities and even some traits (Baron, 2004). Mitchell et al. (2002) refer to

entrepreneurial cognitions as structures of thought used by individuals to make assessments, judgments and decisions involving the evaluation of opportunities, the creation of new businesses and their growth. Understanding the entrepreneur and entrepreneurship is, according to this view, understanding how people use simplifying mental models to link information, previously dispersed, and which help them identifying opportunities, inventing new products and services and building the necessary resources to start and foster a business (Mitchell et al., 2002). This investigation area presented evidences that, frequently, entrepreneurs do not engage in the traditional rational judgments and decisions, opting, instead, for cognitive processes designed to shorten information gathering and analysis to sustain quick decisions made under uncertainty, that is, heuristics (Stinchfield, Nelson & Wood, 2013).

Despite the fact that a consensus definition of entrepreneurship has not yet been achieved, many proposals have been put forward and continue to be presented today reflecting elements of the different perspectives presented above. Timmons and Spinelli (2012), for example, propose a definition of entrepreneurship that has evolved over the three decades of research that the authors devoted to the subject, and which describes entrepreneurship as a way of thinking and acting oriented towards opportunity, with the intent of creating and capturing value. The cognitive processes involved in recognizing opportunities and the actions to explore them are, therefore, at the heart of the concept of entrepreneurship. However, the entrepreneurial action is also contextual, developing against an ever turbulent backdrop. Authors such as Wennekers and Thurik (1999), for example, include this aspect in their definition of entrepreneurship, broadening its scope. For these authors, entrepreneurship is the ability and willingness of some individuals to, either alone or in teams, within and outside existing organizations, understand and create new economic opportunities, introducing their ideas in the market, in the face of uncertainty and other obstacles. Sharma and Chrisman (1999) also expand the scope of entrepreneurship out of the exclusive domain of business creation, suggesting that it involves individuals and groups seeking to explore an opportunity that may also take place in the arts, science and social development. In a larger sense, entrepreneurship can take place in different sets and may result in business creation (Gartner, 1989), institutional entrepreneurship (Morris & Jones, 1999; Zahra, 1993; Covin & Slevin, 1991) and social entrepreneurship, or non-profit organizations (Chell, Nicolopoulou & Karataş-Özkan, 2010; Austin, Stevenson & Wei-Skillern, 2006). This broader band meaning of entrepreneurship is not reflected, however, in the more recent advancement towards a general definition of entrepreneurship proposed by the Academy of Management and cited by Leitch, Hill and Harrison (2010), that proposes that entrepreneurship concerns to «the creation and

management of new businesses, small businesses and family businesses, and the characteristics and special problems of entrepreneurs» (p. 67). Iversen, Jørgensen and Malchow-Møller (2008) made a review of entrepreneurship definitions and could not also find consensus, concluding that more research is needed to understand entrepreneurship. In fact, the boundaries of what might be considered entrepreneurship are still being discussed, and doubts remain about several criteria, such as the type of initiative and the extent of the entrepreneur's involvement in the project. For instance, Ketchen Jr., Short and Combs (2011) debate whether or not franchising should be considered entrepreneurship, while Berglann, Moen, Røed, and Skogstrøm, (2011) establish a minimum of 10% capital investment and participation of the entrepreneur in the management of a new firm as a board member or executive chief for delimiting entrepreneurship.

Despite the ambiguities, three elements seem to be consistently present, either explicitly or implicitly, in the entrepreneurship definition. The central one is the concept of opportunity. The entrepreneurial process has, in its core, the identification and exploitation of some opportunity. Most entrepreneurship definitions include the idea of perceiving (Wennekers & Turik, 1999); recognizing (Baron & Henry, 2011; Alvarez & Buzenitz, 2001); discovering (Peneder, 2009); identifying (McMullen & Shepherd, 2006) or seeking (Sharma & Chrisman, 1999) opportunities.

The second element is directly related to the first one and refers to the fact that entrepreneurship requires that something has to be done to create (Wennekers & Turik, 1999) and exploit a new economic opportunity (Sharma & Chrisman, 1999); seeking to obtain entrepreneurial rents (Alvarez & Buzenitz, 2001). Such an action includes the attempt to acquire resources, including skills (Baron & Henry, 2011). Entrepreneurship entails, therefore, human agency, where entrepreneurs act to pursue opportunities that have been recognized (Hoskisson, Covin, Volberda & Johnson, 2011). As stated by McMullen and Shepherd (2006), «Entrepreneurship requires action. To be an entrepreneur, therefore, is to act on the possibility that one has identified an opportunity worth pursuing» (p. 132).

There is a third element that is often implicit in entrepreneurship definitions. Entrepreneurship is built on uncertainty that results from the fact that it is about future events, which typically do not follow the trends from the past and, therefore, the knowledge about the future is necessarily incomplete (Jalonen, 2011). Innovation, which is also deeply related to entrepreneurship, leads to perceptions of increased uncertainty (Freel, 2005). So, uncertainty is another central concept related to

entrepreneurship and it may be found at the industry level, the firm level, and the personal level (von Gelderen, Frese & Thurik, 2000).

In sum, considering different definitional contributions and perspectives about entrepreneurship, it may be stated that entrepreneurship is built around an opportunity that requires action to be exploited with benefits, which can be done within different organizational settings, having in common the same uncertain environment.

Therefore, studying entrepreneurial events, as it is the aim of our study, with particular focus on marketing activities, requires understanding how individual entrepreneurs use their cognitive structures, involved in the process of recognizing and exploiting opportunities within a context (Hoskisson et al., 2011). A topic worthy being discussed is whether these opportunities exist, objectively and independently, and wait still to be recognized by an alert entrepreneur or, on the other hand, they are the very creation of the entrepreneurial action. The next section debates briefly this topic.

2.2. Discovery or creation of opportunities

As exposed above, the concept of opportunity is central in the study of entrepreneurship (Shane & Venkataraman, 2000). It is recognized that, without an opportunity, entrepreneurship cannot exist, but again, there is no consensus about the definition and nature of opportunities (Short, Ketchen Jr., Shook & Ireland, 2010). It is not within the reach of our work to elaborate extensively on the concept of entrepreneurial opportunities (for a review of existing literature on the theme, see Short et al., 2010). However, there is one particular topic worthy to be commented here, due to its relevance to our research approach, which is the debate about whether opportunities are discovered or created.

As presented earlier, some definitions of entrepreneurship refer to the identification or recognition of an opportunity as the starting point for the entrepreneurial process of exploitation. For instance, Webb et al. (2011) state that «The entrepreneurship process begins with entrepreneurial alertness, which then leads to the recognition of an opportunity, innovation, and exploitation of the opportunity» (p. 540). Such a perspective is based on the belief that opportunities are objective, resulting from some disequilibrium in the market, and to which the entrepreneur must be alert (Kirzner, 1999; 1973). In that sense, entrepreneurship is all about finding industry gaps and creatively

rethinking the process of filling them (Markides, 1997). This assumption led the cognitive psychology researchers to seek to identify the cognitive phenomena associated with being able to see and act upon opportunities (Krueger, 2003). Mitchell et al. (2002) note that, although entrepreneurs may not be different in terms of having a so-called 'entrepreneurial personality', they are, by definition, more than others able to see opportunities and such fact results from the particular cognitive processes that entrepreneurs use. Within a resource-based perspective, Alvarez and Buzenitz (2001) sustain that the cognitive ability of individuals to recognize opportunities and their opportunity seeking behaviour are resources in their own right that permit offering superior outputs to the market.

Baron (2006) suggests that entrepreneurs use their cognitive frameworks to 'connect the dots' between environmental changes, whether being in technology, demographics, government policies, markets and others. The patterns perceived in observed trends suggest new ideas that are potentially the basis for new ventures. The author believes that both active search for opportunities and alertness, that is, the preparedness to recognize them when they emerge, are important. Characteristics such as intelligence, creativity, optimism, perception of risk, prior knowledge of the market and industry are recognized to play a role in alertness, according to Baron (2006). Opportunity recognition is, to the author, a cognitive process through which individuals recognize complex patterns suggesting means of generating economic value. The author posits that some people recognize opportunities where others do not because «they possess the cognitive frameworks (e.g., prototypes, exemplars) needed to perceive patterns among seemingly unrelated trends or events» and «Because their life experiences are unique, different persons may possess prototypes for a given domain that differ in terms of clarity or degree of development» (Baron, 2006, p. 115-116). Gaglio and Katz (2001) advocate that alert individuals show a tendency to search for and notice more opportunities, in sum, because they possess complex and adaptive mental frameworks that make them more able to 'think outside the box'.

Pointing to different assumptions of ontology, epistemology and ideology that base deductive, quantitative, hypothesis-testing research on entrepreneurship, the social constructionist perspective sustains that entrepreneurship is constructed in social interaction between individuals that have the ability to shape their environment and that it is the task of research to enhance our understanding about these interactions (Lindgren & Packendorff, 2009; Aldrich & Martinez, 2003).

Unlike the cognitive perspective that emphasizes the individual cognitive processes involved in the opportunity discovery, the social constructionist approach argues that «entrepreneurship emerges

dynamically in social interaction between people» (Lindgren & Packendorff, 2009, p. 33). As noted by Read, Song and Smit (2009), when the process of creating new ventures is approached from the perspective of opportunity recognition, the importance of concepts such as entrepreneurial alertness and entrepreneurial orientation are easy to understand. The authors note, however, that other perspectives are emerging, challenging the exogenous character of opportunities, and postulating that opportunities are co-created by the entrepreneur and his/her partners. This is the case of the effectual perspective (Sarasvathy, 2001), described ahead, which does not assume that opportunities are discovered; instead, they are co-created by the entrepreneur and stakeholders.

Other emergent perspective is the concept of entrepreneurial bricolage (Baker & Nelson, 2005). Bricolage can be defined as «“making do with the resources at hand”» (Stinchfield, Nelson & Wood, 2013, p. 2). Entrepreneurs that engage in such activity are involved in the process of social construction of opportunities and resources and this process fails to fit well the traditional rational entrepreneurial perspective (Stinchfield, Nelson & Wood, 2013). The classic perspective on entrepreneurship, based on Austrian economics, sustains that opportunities exist because of the inefficient allocation of resources in the economy (Shah & Tripsas, 2007). The entrepreneur's actions would tend to restore equilibrium in the market (Kirzner, 1999). However, as Klein (2008) notes, the awkward relationship between entrepreneurship and conventional economics makes sense only in the context of the neoclassical theory of the firm, where information allows making rational decisions. The entrepreneurial context, on the contrary, is highly uncertain, making the search and discovery of opportunities difficult, since neither it is possible to collect all the necessary information to anticipate a result from a particular action, nor is it possible to have an idea of the probabilities of those results to occur (Bettiol, Di Maria & Finotto, 2012).

More than a half of a century ago, Simon (1955) already questioned the possibility of a rational economic and administrative man. He stated that the

Traditional economic theory postulates an “economic man”, who, in the course of being economic, is also “rational”. This man is assumed to have knowledge of the relevant aspects of his environment which, if not absolutely complete, is at last impressively clear and voluminous. He is assumed also to have a well-organized and stable system of preferences, and a skill in computation that enables him to calculate, for the alternative courses of action that are available to him, which of these will permit him to reach the highest attainable point in his preference scale. [...] Recent developments in economics, and particularly in the theory of the business firm,

have raised great doubts as to whether this schematized model of economic man provides a suitable foundation on which to erect a theory (p. 99).

Under such conditions, opportunities must be created instead. The subjective nature of opportunities was also identified in the opportunity evaluation phase. Wood and Williams (2013) highlight the importance of personally-subjective considerations when making a decision about whether or not to pursue an opportunity, showing that, for instance, existing knowledge, both about the market and the technology, affects the way an evaluation is made.

Following the criticism about the discovery theory, Alvarez and Barney (2005) propose the creation theory as a logical alternative. The creation theory is a path dependent process, referring to the social constructionist framework, which holds that opportunities are endogenously created or enacted, through entrepreneurs' actions and reactions, incorporating the incremental knowledge about how consumers and markets response to their actions (Alvarez & Barney, 2005). According to the authors, opportunities are social constructions that are not independent of entrepreneur's perceptions and that can only be verified when they interact with the market to test their veracity. They also posit that, when deciding in an uncertain scenario, entrepreneurs tend to use an inductive, iterative, and incremental process, such as effectuation or bricolage, as opposed to using data collection and analysis techniques in the hopes of understanding the possible outcomes of an opportunity and their probability.

Under such perspective, entrepreneurship is perceived as an engine of making, not only one of discovery (Dew, Sarasvathy, Read & Wiltbank, 2009b). However, the creation theory does not imply that the discovery theory should be abandoned, but, rather, that the context under which entrepreneurs develop their actions must be considered when researching entrepreneurship (Alvarez & Barney, 2005). Sarasvathy, Dew, Velamuri and Venkataraman (2003) present three streams of literature that are pertinent to the entrepreneurial opportunity, focusing on opportunity recognition, discovery and creation, respectively. They hold that the three views can co-exist, since they are extremely context-dependent. Hence, each view can be more or less useful depending on different circumstances, problem spaces and parameters of decision. The authors note that, if, for instance, resources are clearly defined and goals are also known, a recognition approach might be more suitable, but when uncertainties and ambiguities are predominant, the creative approach might be the only option. In fact, under different circumstances, different entrepreneurial information processing strategies are applied. There is evidence that entrepreneurs' decision making is a dynamic

combination of algorithmic and heuristic information treatment (Vaghely & Julien, 2010). The discovery theory and the creation theory, better described as Kirznerian and Schumpeterian entrepreneurship (Hoskisson et al., 2011), are not, therefore, antagonistic or irreconcilable. Kirzner (1999) himself concludes that, although he started by confronting positions, he after acknowledged that both views can be simultaneously accepted.

Other perspectives are emerging, showing the heterogeneity of the entrepreneurship concept and its difficult accommodation within the classic rational, opportunity discovery and analysis approach. This is the case of user entrepreneurship, which may be described as the «commercialization of a new product and/or service by an individual or group of individuals who are also users of that product and/or service» (Shah & Tripsas, 2007, p. 124). This concept refers to a type of entrepreneurial process that does not begin with the identification of market disequilibria, but personal needs instead. A solution that is later available to a larger market starts, as it were, by accident.

Either by identifying market imbalances or by creating them through disruptive changes in the *status quo*, entrepreneurs and entrepreneurship are recognized to yield major social and economic benefits. These positive impacts are particularly relevant in the case of knowledge-based entrepreneurship, as it is explained hereafter.

2.3. The importance of knowledge-based entrepreneurship

The positive effect of entrepreneurship for the economy and society has been widely claimed. van Praag and Versloot (2008, 2007) reviewed the research in order to explore the benefits caused by entrepreneurs, and concluded that they have a very important, although specific, function in the economy. According to the authors' findings, generally, entrepreneurial firms make a high contribution to job creation, they contribute to productivity growth and they are able to produce and transfer to the market higher-quality innovations in relation to their incumbent counterparts, albeit in lower number. The authors also concluded that entrepreneurs are more satisfied than employees.

Additionally, these firms have a role as important channels for transferring to market investments in knowledge development made by incumbents, however not explored by them, through innovation, employment and competitiveness (Audretsch, 2009). When based on knowledge that fosters

innovation, which is generally known as opportunity entrepreneurship, the entrepreneurial activity has, then, proven to be positively related to economic growth (Salgado-Banda, 2007; Acs, 2006; Carree & Thurik, 2003). Production of knowledge is important, but it is equally important that it is converted into innovative products that fuel the economic growth. Research has found that high rates of entrepreneurship increase the odds of knowledge becoming innovations, that is, entrepreneurship moderates the relationship between knowledge and new-to-the-market innovations (Block, Thurik & Zhou, 2013).

In addition to the economic and social benefits, there is evidence that new firms contribute in other forms, namely by addressing environmental issues. York and Venkataraman (2010), for instance, found that, as environmental problems represent entrepreneurial opportunities, new firms are contributing for solving this type of problems, privileging sustainable business models and clean technologies.

Acknowledging such an importance, both national governments and regional public institutions offer a variety of support programs in order to foster entrepreneurial initiatives, not only through financial provision, but also technical support and capacitation programs (Robson, Wijbenga & Parker, 2009). However, despite the recognition of the benefits of a more entrepreneurial society (Audretsch, 2009), academic literature is not completely unanimous on the fact that all new ventures offer a relevant economic and social positive impact (Von Graevenitz, Harhoff, & Weber, 2010). Wong, Ho and Autio (2005) believe that it is important to distinguish different types of entrepreneurship when considering their contribution to the economy. They argue that a high rate of entrepreneurial activity does not guarantee, without any further analysis, a better economic performance. In their study using the Global Entrepreneurship Monitor data, the authors found that only innovation is clearly related with economic growth and that just a small part of entrepreneurs are involved in innovative activities that promote high growth. These findings were confirmed by several studies (Acs, Desai & Hessels, 2008; Salgado-Banda, 2007; Acs, 2006). Innovation, potentiated by entrepreneurship, has a positive effect on economic growth that, in turn, generates conditions to more innovation and entrepreneurship, leading to a virtuous circular process (Galindo & Méndez-Picazo, 2013). This fact highlights the need to focus on opportunity entrepreneurship that fosters innovation and economic growth.

Consequently, Shane (2009) maintains that not all entrepreneurial projects should be encouraged by governments if economic growth is to be pursued, since the typical start-up is not innovative, creates few jobs and generates little wealth. The idea that entrepreneurs can heal depressed

economies is, according to this author, a myth. In order to promote growth, the new entrepreneurial companies should be more productive than their established counterparts, which is not the case, since productivity grows with companies age (Shane, 2009). A Portuguese study on the contribution of entrepreneurship for regional development and job creation concluded, in fact, that the positive effects of new firms' creation are not immediate, and could take several years to show (Baptista, Escária & Madruga, 2007).

Some research indicates that knowledge-based entrepreneurship seems to yield better results, though. Shane (2004) states that, generally speaking, academic spin-offs, which constitute a particular form of knowledge-based entrepreneurship, perform better than other spin-offs. In the context of an economy based on knowledge, the development and commercialization of new technologies is critical for the competitiveness of one country, since it allows revitalizing mature industries and creating whole new ones (Kropp & Zolin, 2005). Besides being able to reach disproportionate high performances, these companies can promote local development and are useful in commercializing technologies developed in universities. Yet, once again, this opinion is not consensual. Colombo, D'Adda & Piva (2009) argue that there is evidence showing that the majority of the science-based entrepreneurial firms are not gazelles, which is the term used to portray young and small companies capable of rapidly growing and generating a great amount of net jobs (Henrekson & Johansson, 2010). In many cases, these companies cannot attain high growth, being their knowledge and contribution to innovation explored by their clients and external partners (Colombo, D'Adda & Piva, 2009). This controversy is not new and some authors (e.g. Shearman & Burrell, 1988) had already shown some time ago that the technology-based firms' capacity to generate jobs is low. Nevertheless, science-based entrepreneurial firms are an essential drive for the industries' renewal and for the dynamics of their local environment (Colombo, D'Adda & Piva, 2009). Another important contribution of these companies is that they can translate undertaken research into commercial value that, otherwise, would be restrained in the academic domain. In Portugal, this is particularly important, since most of the new technology-based firms are more creative adapters of technologies first introduced elsewhere than radical innovators (Laranja & Fontes, 1998).

Despite the difficulties in creating a synergetic relationship between the academy, government and businesses, there are documented Portuguese examples of the fruitful functioning of the triple helix (Marques, Caraça & Diz, 2006). Therefore, some important innovations may not result from entrepreneurial firms' own research and development, but from other sources. This is consistent with

the logic underlying the knowledge spillover theory of entrepreneurship, which assumes that some important radical innovations result from start-ups seizing opportunities created by the dispersion of endogenously created knowledge (Acs, Braunerhjelm, Audretsch & Carlsson, 2009). Colombo, D'Adda & Piva (2009) think that these companies are translators, catalysts and mediators between the research world and the industry world. The authors state that their major contribution is that they establish a close relationship with their customers, favouring the adjustment of knowledge to the market, which sets the true meaning of innovation.

It is worthy to clarify here what we are talking about, when we talk about knowledge-based or intensive; science-based, high technology or academic entrepreneurship. As other concepts in the field, these are also nebulous terms and different designations are used to refer to the same ideas. Although knowledge-intensive firms can be generically defined as those that base their activities, products or services and value on their employees and external partners' knowledge (Drejer, 2002), the classification of a company as being knowledge-based is not straightforward. The most common procedure to identify these companies is according to the sector in which they operate. Grinstein and Goldman (2006), however, consider that this is not an adequate criterion, since it could be possible to find high-tech firms operating in traditional sectors and vice-versa. The authors developed a research aiming at identifying the characteristics that allow describing a company as being highly technological. Among several other dimensions, they proposed the heavy focus on research and development activities, being this dimension perceived as more important than marketing. This result is consistent with the established view that marketing and innovation are viewed as two separate and sometimes opposite activities of the firm.

Technology-based firms (Colombo, Delmastro & Grilli, 2004), high-tech start-ups (Colombo & Grilli, 2010) and technology-based entrepreneurial firms (Yli-Renko & Janakiraman, 2008) are common designations for this type of firms. These terms are also, sometimes, used to refer to academic spin-offs, although these designations have a broader perspective, including other firms that did not emerge from academia.

Concerning science-based firms, they have been strictly described as companies created with the objective of commercially exploit scientific knowledge developed in universities and other public research centres (Colombo, D'Adda & Piva, 2009). This is also the label used by authors such as Murray (2004), who refers to the science-based firms as ventures created to commercialize scientific ideas generated by academic inventors. Therefore, these companies have in common the fact of being

born from academic research. A vast diversity of designations may be found in literature referring to the same phenomenon. This is the case of the term university spin-offs used by Shane (2004), when he refers to the result of the academic entrepreneurship. Mustar et al. (2006) use the expression research-based spin offs to designate new ventures based on formal or informal technology or knowledge transfer generated by public research organizations. Clarysse and Moray (2004) also use the research-based spin-offs label to identify academic spin-offs, which they consider to have distinctive characteristics comparing to other high-tech start-ups. Krabel and Mueller (2009) also name academic spin-off companies those businesses started by scientists in universities and research centres. The term is used as a synonym of academic start-ups and academic entrepreneurship. University start-up is another name that can be found in literature, referring to companies born from academic knowledge (Powers & McDougall, 2005). Lockett, Siegel, Wright & Ensley (2005) name these firms spin-offs at public research institutions. Storey and Tether (1998) recognize the diversity of definitions of these types of entrepreneurial firms. In some studies, the term is used in a narrow sense, designating young companies based on the exploitation of some invention or technological innovation, to which substantial technological risks are associated. In others, the term is applied to a broader companies' population, referring to all new firms operating in the high technology sector, although the very definition of technology is also problematic. In their book, resulting from the international project AEGIS – Advancing Intensive Entrepreneurship and Innovation for Economic Growth and Social Well-being in Europe, McKelvey, McKelvey and Lassen, (2013) include in the knowledge-intensive entrepreneurship (KIE) designation a subset of firms that uses different types of knowledge, such as scientific, technologic and creative, to develop new ideas, opportunities and innovation as a key competitive asset, which typically occur in high tech industries but can also take place in low tech industries if high tech applications are implemented.

2.4. Section summary

In this first part of the literature review, we start by presenting a brief overview of the research field and concept of entrepreneurship, which has evolved from the traits approach, to the behavioural approach and to the cognitive approach. Even though an agreed definition of entrepreneurship has not yet been reached, this is an ebullient area full of research challenges and prospects.

One convergent point of the existing definitions of entrepreneurship is that it is built around an opportunity. Whether entrepreneurial opportunities are objective and independent of the entrepreneur and can be discovered by him/her or they are the very product of the entrepreneurial action is also discussed in this section.

Entrepreneurship has been attracting growing research interest, partially because of the recognition of its importance as a social and economic activity. In fact, we may conclude that entrepreneurship is highly relevant for the economy and society, inasmuch as it enables innovation and development. Knowledge-based new companies are particularly prolific innovators, although not all of them show high growth potential.

Marketing has been proved to be beneficial for new knowledge-based companies. However, these, as many other start-ups and small firms in general, seem to have trouble implementing the managerial marketing principles and tools. Such realization has more recently fed the emergence and interest about entrepreneurial marketing. This research area started, however, within the small and medium sized companies' practices. The field has expanded but it still calls for further development. The next section presents a review of the main studies and advances made so far at the marketing/entrepreneurship interface.

3. Literature review: marketing/entrepreneurship interface

Entrepreneurship and marketing are traditionally regarded as two distinct fields of research. Although complementary, researchers in these two areas of research have been operating in silos, developing knowledge within their disciplinary boundaries, with little cross-disciplinary fertilization (Webb et al., 2011). However, the realization that entrepreneurial firms have distinct characteristics and needs that shape their marketing activities has motivated researchers to start developing the notion of entrepreneurial marketing. It is a fact that each and every company that wants to stay in business has to engage in some kind of marketing activity, even if in an instinctive and unplanned manner (Carson, 1985). However, Hills, Hultman and Miles (2008) note that not every theory, process and marketing tool prescribed by conventional marketing literature fulfils satisfactorily the needs of firms operating in an increasingly demanding entrepreneurial environment. Several studies have dedicated attention to the practice of marketing, firstly in small firms in general, and later in entrepreneurial firms. It was found that, in these companies, marketing practices are more intuitive, informal, mainly sales-oriented and relationship focused, being rarely in line with what the textbooks define (Reijonen, 2010; Walsh & Lipinski, 2009; McCartan-Quinn & Carson, 2003; Carson & McCartan-Quinn, 1995). In fact, there is evidence that some small firms adapt marketing theories for making them more relevant to their way of doing business (Carson & Gilmore, 2000a).

These findings established the basis for the development of some research involving the relationship between marketing and entrepreneurship. In this context, researchers tried to explore the interception between marketing and entrepreneurship through the entrepreneurial marketing concept, developing proposals to make marketing more relevant to entrepreneurs (Gilmore, Carson & Grant, 2001; Carson & Gilmore, 2000a; Stokes, 2000a).

Nonetheless, entrepreneurial marketing, as a field of study, is still in its infancy. Although literature in this area of research has grown in significance since the 1980's, as in any emerging academic field, knowledge is rather scattered, research results are still fragmented, lacking a comprehensive theory and the construct remains underdeveloped (Ionita, 2012; Hills & Hultman, 2011; Gruber, 2004). Some researchers tried to identify the specific characteristics and needs of these companies that affect their marketing actions (Carson, & Gilmore, 2000a; Carson, 1985). Others tried

to describe how entrepreneurial firms perform marketing activities (Morris, Schindehutte & LaForge, 2002; Stokes, 2000a; Hill, 1995). Hills, Hultman and Miles (2008) note that, even though much has been done in terms of knowledge development in this field of research recently, its progress is modest comparatively to other areas of traditional marketing, and, thus, much more needs to be done, requiring further research on entrepreneurial marketing and its use and impact on firms in different contexts. The next sections present an overview of the current status of research in this area, the main developments and results achieved.

3.1. The entrepreneurial marketing field of research and concept

Having edited the first volume especially dedicated to the marketing/entrepreneurship interface, Hills (1987) is one of the pioneer researchers in the area. He called attention to the fact that a more appropriate theory and practice of marketing is needed to meet the constraints faced by small and medium-sized enterprises. Most previous research undertaken at the interface assumes that conditions that small entrepreneurial firms face moderate the traditional marketing function. Beverland and Lockshin (2004) posit that researchers at the marketing/entrepreneurship interface may benefit from greater theoretical pluralism when examining which aspects of the traditional marketing approach are needed to the success of entrepreneurial ventures and which must be adapted or even rejected. Entrepreneurial marketing represents the attempt to make marketing more fitted to the entrepreneurial context.

Opinions about the status of entrepreneurial marketing as a field of research are very diverse (Day, 1997). Some authors advocate that entrepreneurial marketing can reach a new paradigm status, but others think that it is still early and more research is needed so as to further develop this area (Collinson, 2002). In fact, while the term paradigm, referring to entrepreneurial marketing, is used in some literature (e.g. Jones, Suoranta & Rowley, 2013), others prefer to name it a specialized area of marketing, as it is the case of international marketing, industrial marketing, and services marketing (Hills, Hultman & Miles, 2008). Hills and Hultman (2011) emphasize that, today, we look at the entrepreneurial marketing not as a question of challenging the mainstream perspective of marketing, but as question of supplementing the existing marketing theory, offering knowledge about marketing as it is implemented by entrepreneurs. Entrepreneurial marketing is also seen as marketing of small firms, that will evolve to formulated marketing as they grow and embrace the tools used by the so-called

professionally run marketing (Kotler, Armstrong, Wong & Saunders, 2008). Kotler (2002) agrees that not all marketing must follow the 'Procter & Gamble' model. He distinguishes three phases that companies go through: entrepreneurial marketing; formulated marketing and intrapreneurial marketing.

One of the questions that remain is whether entrepreneurial marketing belongs to marketing or to entrepreneurship domains. Kraus et al. (2012) advocate that entrepreneurial marketing may be simultaneously considered a subset of the marketing discipline, very close to relationship marketing, and a subset of the field of entrepreneurship, as it is the case of international entrepreneurship, but they propose that the «fusion of both leads to a unique school of thought that goes beyond either of these subsets» (p. 7). They call it a *school of thought*, a *discipline*, a *new field of research* and a *stream of research* within both marketing and entrepreneurship that is still earning recognition and legitimization from researchers. The reason for such ambiguity is the fact that the foundation of entrepreneurial marketing research is grounded in findings resulting from three streams of research: management, entrepreneurship and marketing (Kraus et al., 2012). It is not surprising, then, that Hansen and Eggers (2010) identified four perspectives in the study of entrepreneurial marketing: a) entrepreneurship within marketing; b) marketing within entrepreneurship; c) focus on communalities between the two; and d) focus on the uniqueness of the interface. The authors intended to develop guidelines for future research at the marketing/entrepreneurship interface by organizing the "Charleston Summit", but they failed to identify a comprehensive framework, model or paradigm that would help gearing future research at the interface, leaving such a challenge open.

Despite the advances the area has known over the last thirty years, Hills, Hultman and Miles (2008) emphasize the fact that there are still few studies of what characterizes entrepreneurial marketing and of its differences when compared to traditional marketing. Hills and Hultman (2011) state that research is in an exciting stage of development, and they expect that the future will be fruitful in terms of conceptual and integrative research. Although entrepreneurial marketing has been generating growing interest comparing to other areas in management and traditional marketing, it still is in disadvantage in terms of relevant research (Hills, Hultman & Miles, 2008). Read, Song and Smit (2009) also highlight that, for instance, research in the entrepreneurial finance field is better developed than at the marketing/entrepreneurship interface.

In fact, both entrepreneurship and marketing practiced by entrepreneurial firms are young research areas. Just as in the entrepreneurship field, the entrepreneurial marketing research domain is still looking for delineation and the concept for definition (Hills & Hultman, 2011). Several attempts to

define entrepreneurial marketing have been made, though. The concept has been evolving from what could be described as marketing practiced by small firms, to marketing as implemented by entrepreneurs to, more recently, marketing applied by any company that operates in turbulent environments (Ionita, 2012). From this perspective, entrepreneurial marketing can be regarded as an approach to the market determined by a changing environment that generates contradictions, complexities and chaos, which is not necessarily related with the company size, age and lack of resources (Ionita, 2012).

Table 3.1. presents a number of definitions of entrepreneurial marketing showing different elements and perspectives. On the one hand, in some definitions, it is possible to find an attempt to integrate marketing and entrepreneurship, mainly through the incorporation of the concepts of opportunity and value creation for the market to convey a new strategic orientation (e.g. Hills, Hultman, Kraus & Schulte; 2010; Morris, Schindehutte & LaForge, 2002). Morrish, Miles and Deacon (2010) adopt a perspective of entrepreneurial marketing, in which they explicitly claim that the construct is not a combination of a subset of the marketing and entrepreneurial processes, but rather a full integration of all aspects of administrative marketing and entrepreneurship, both customer-centric and entrepreneur/innovation-centric. Hills and Hultman (2011) highlight the importance entrepreneurial marketing for the recognition of opportunities, which should be a market and marketing focused process. The authors note that the mainstream marketing theory has been focusing mainly on the evaluation process that follows the initial idea generation.

Some definitions, on the other hand, tend to focus more either on the marketing or on the entrepreneurship sides of the bundle. In Kraus, Harms and Fink's (2010) definition, entrepreneurial marketing is portrayed as a marketing function that presents characteristics of the entrepreneurial orientation. Stokes (2000b) simply defines entrepreneurial marketing as «marketing carried out by entrepreneurs or owner-managers of entrepreneurial ventures» (p. 2). Gaddefors and Anderson (2009), on the contrary, focus on the entrepreneurial process, using a social constructionism perspective, involving co-creation of value. Considering the symbolic and cultural dimension of entrepreneurial action, Bettiol, Di Maria and Finotto (2012) also contextualize entrepreneurial marketing within an environment, being its meaning created by the entrepreneur. A broader conceptualization of entrepreneurial marketing will be presented later as a result of our study.

Table 3.1. Some definitions of entrepreneurial marketing

Definition	Study	Perspective
«EM is a spirit, an orientation as well as a process of passionately pursuing opportunities and launching and growing ventures that create perceived customer value through relationships by employing innovativeness, creativity, selling, market immersion, networking and flexibility» {Emphasis added}	Hills et al. (2010, p. 6)	Strategic orientation
«Proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging and value creation » {Emphasis added}	Morris, Schindehutte and LaForge (2002, p. 5).	Strategic orientation
«EM is an organizational function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders and that is characterized by innovativeness, risk-taking, pro-activeness, and may be performed without resources currently controlled» {Emphasis added}	Kraus, Harms, and Fink (2010, p. 26).	Focus on marketing (relationship marketing at the core)
«We propose marketing to be a fully integrated element of the entrepreneurial process . From this viewpoint, the image of the market that entrepreneurs act upon is not a battlefield consisting of products and services competing on objectively based differences. Rather it is a dialogue where expectations are being created and recreated , based on the play of signs, symbols and images» {Emphasis added}	Gaddefors and Anderson (2009, p. 33)	Focus on entrepreneurship (social constructivism perspective)
«Marketing is the set of strategies and levers that allow entrepreneurs to make their ideas intelligible, accessible and shareable [...]. The generative moment of marketing strategies and practices lies in the ability of the entrepreneur to construct, develop and articulate complex discourses and narratives that make their novel ideas comprehensible and valuable» {Emphasis added}	Bettiol, Di Maria and Finotto, (2012, p. 224)	Focus on entrepreneurship (sensemaking and creation perspective)

The definitions presented above, and entrepreneurial marketing literature in general, show that marketing and entrepreneurship are mutually beneficial. In a separate section ahead we will address the reasons why marketing needs to be more entrepreneurial. For now, we will explore the benefits that marketing offers to entrepreneurship.

3.2. The need for marketing in entrepreneurship

One of the characteristics of innovation that entrepreneurship channels, particularly when it is knowledge-intensive or science-based, is the high level of risk of failure involved. Although there is not a consensual number regarding the mortality rate of new ventures, literature shows that these firms face high chances of failing (Phillips & Kirchhoff, 1989). In fact, bridging new ideas and the specific market needs they address is not an easy task, given the uncertainty associated to the introduction of new products and the creation of new markets (Tomala & Sénécal, 2004; O'Conner, Hendricks & Rice, 2002). In fact, the risk of failure is highly dependent on the degree of novelty associated to the new venture, including market uncertainty (Shepherd, Douglas & Shanley, 2000). Consequently, a large number of innovative new ventures end in the 'death valley', failing to convert inventions into market value, which is the basis of innovation (Markham, 2002; Branscomb & Auerswald, 2001).

Empirical studies confirm that the death rates at early ages are much higher than when companies grow older (e.g. Frank, 1988; Freeman, Carroll & Hannan, 1983). In his seminal work *Social Structures and Organizations*, Stinchcombe (1965) coins the construct *liability of newness*, which is still widely accepted by the scientific community (Abatecola, Cafferata & Poggese, 2012). The expression is used to explain why young firms experience higher mortality rates than the established ones. Stinchcombe (1965) explains that, on the one hand, establishing new organizations involves creating and learning new roles and establishing trust among organization members, which translates into inefficiencies. On the other hand, new organizations lack links with the market and the absence of external legitimacy constitutes a critical problem for innovative entrepreneurs, who may not understand completely the nature of their business, let alone its important stakeholders (Aldrich & Fiol, 1994). As Alvarez and Barney (2005) note, «Entrepreneurial firms are organized under conditions of uncertainty, and their primary purpose is to solve transaction difficulties associated with the inability to know the value of an exchange at the time that exchange is commenced» (p. 788).

Although predicting new ventures' performance and success can be very challenging due to the volatile environmental developments that new ventures face (Cooper, 2002), several studies have tried to uncover the determinants of new ventures' success, hoping to contribute to reducing their failure risk. Dimensions such as management characteristics, business strategy, industry structure, personality and other characteristics of the entrepreneur and the founding team have been proposed (e.g. Eisenhardt & Schoonhoven, 1990; Keeley & Boure, 1990; Sandberg & Hofer, 1987; Miller & Toulouse, 1986). Chrisman, Bauerschmidt and Hofer (1998), who present an extension to the model

of Sandberg and Hofer (1987), listed 62 research models used in studies of new venture performance, published between 1962 and 1991. According to the authors, these studies grouped predicting variables in one or more of the following factors: a) the entrepreneur; b) industry structure; c) business strategy; d) resources; and e) organization structure, systems, and processes. Baum, Locke and Smith (2001) combine individual, organizational and environmental dimensions to predict venture development and growth.

The ultimate measure of entrepreneurial firms' performance is their ability to stay in business. Based on a sample of 27 new ventures profiled in *Inc.* Magazine's 'Anatomy of a Start-Up' case studies from 1991 through 1995, from which 17 survived, Gartner, Starr and Bhat (1998) developed a model to predict new ventures' survival. Their model comprises a set of 85 predictive items covering four broad categories, namely a) individual characteristics; b) entrepreneurial behaviours; c) strategy; and d) environment.

Marketing is pervasive in this theme. Most referred studies include marketing capabilities and/or marketing activities as predictors of new ventures' success. In fact, marketing has been proved to exert an important influence on companies' performance. Based on a review of empirically-based books and articles on successful marketing practices, Brooksbank (1991) presents a checklist with all marketing activities which have been associated to high-performing companies, irrespectively of companies' size or industry. The author concludes that successful companies have a greater knowledge and appreciation of marketing concepts and tools and show greater expertise in their implementation. Besides adopting a marketing philosophy approach, successful companies carry out situation analysis, develop marketing objectives, formulate a marketing strategy, design marketing organization and implement marketing control.

Currently, there is consistent evidence concluding that marketing capability has a strong association to performance, showing the importance of marketing assets for firm performance (Morgan, 2012; Krasnikov & Jayachandran, 2008). Morgan, Vorhies and Mason (2009) present results from empirical research showing that not only market orientation is a critical market-based asset that impacts on performance, but also that the marketing capabilities of the firms are the key market-relating deployment mechanism. Their results show a significant direct relationship between firms' marketing capabilities and both subjectively and objectively assessed performance. Vorhies, Morgan and Autry (2009) also found that marketing capabilities positively mediate the product-market strategy and derived business unit performance relationship.

Smart and Conant (1994) refer diverse literature where the need for marketing expertise in the entrepreneurial process is recognized. According to Cooper (1994), being able to offer unique value to customers, being market-driven and customer focused and planning the product are among the drivers for new products' success. Weerawardena (2003) also found that the marketing capability of a firm influences both organizational innovation intensity and its sustained competitive advantage. Hills (1985) highlights the importance of market analysis to predict new venture success and Cooper (1994) identifies the strong market orientation and the focus on client as critical factors of new product success. Similarly, Henard and Szymanski (2001) point out the capability to respond to customer needs as a factor to predict new product success. Marketing capabilities have also been proven to be important to improve the performance of new ventures that go international (Ripollés & Blesa, 2012).

In entrepreneurial firms, marketing decision making expertise often results from experiential knowledge (Carson & Gilmore, 2000b). In fact, there is evidence that both founders' marketing experience and their industry experience are, among others, two important factors leading to the success of new ventures (Song, Podoyntsyna, van der Bij & Halman, 2008). Other studies considering the importance of marketing, not from the success, but from the failure point of view, reached the same conclusion, finding that lack of experience in marketing and all aspects related to marketing, such as market assessment, competitors' analysis and channel selection, are factors that may contribute to the new firms' failure (Udell & Hignite, 2007).

Zimmerer and Baglione (2009) assert that some technological products fail, not because of technical problems, but due to behavioural factors that influence the state of mind of the new product adopters. In the case of new ventures, those capabilities are even more relevant, since the failure of the first product is often related with the failure of the business as a whole (Song, Di Benedetto & Song, 2010). Market knowledge represents what the entrepreneur knows about potential customers in order to appropriately serve them, focusing on their preferences and using effective distribution channels (Sullivan & Marvel, 2011). In that context, marketing can provide useful insights, both in terms of innovation diffusion and adoption, and new products buyer behaviour understanding (Hills & Laforge, 1992).

The importance of marketing is also recognized by investors. An early study by Hills (1985) on venture capitalists' perceptions about the importance of in-depth market analysis in business plans revealed that it is considered of the utmost importance and that better analysis could reduce

significantly the failure rates of new ventures. MacMillan, Zemann and Subbanarasimha (1987) also presented a study that tried to capture the venture capitalists' perspective on the screening criteria for new venture's success prediction. The degree in which the venture is protected from competition and the ability to demonstrate market acceptance of the product were found to be two major criteria. Kakati (2003) asked venture capitalists to rate one of their most and least successful ventures on several criteria, such as entrepreneur quality, resource-based capability, competitive strategy, product characteristics, market characteristics and financial criteria. The firm's ability to meet the unique requirements of customers was shown to be critical to success.

Despite the evidence that marketing is vital to new ventures, there is indication that entrepreneurial firms do not use marketing in the same way as larger and established firms (Hills, Hultman & Miles, 2008). This finding inspired researchers to initiate a new area of research emerging from the interception between marketing and entrepreneurship. The relationship between market and customer orientation and entrepreneurial orientation is one of the topics of interest within the research at the marketing/entrepreneurship interface.

3.3. Market orientation and entrepreneurial orientation

Traditionally, marketing and entrepreneurship have been regarded as two opposite approaches, one focusing on customers and the other on innovation, i.e., one having an outside-in orientation and the other an inside-out perspective (Stokes, 2000a). Slater and Narver (1998) recognize that market orientation has been criticized for contributing to incremental and trivial developments in products, preventing disruptive innovations. The authors argue, however, that within this controversy lie two concepts that are often misunderstood and confused. One is the customer orientation (customer-led), which is concerned with responding to the expressed needs of customers, typically has a short-term focus, is reactive in nature and uses techniques such as market research surveys. The customer orientation is adaptive and suffers from what is called the tyranny of the market served, since the managers see the world only through the eyes of their existing customers. The other concept is market orientation (market-oriented) that goes far beyond the intent of meeting the expressed needs of current markets, seeking to understand and meet their latent needs. It has, therefore, a long-term orientation and is proactive in nature. This approach is deeply committed to understanding the markets but also the capabilities and plans of the competition by collecting and analysing market information with a

forecasting perspective. Market orientation creates superior value through the dissemination of information within the organization. The market is analyzed in a broader and long-term perspective, and the organization acts in a coordinated way to generate a learning base for innovation. This approach combines the techniques of traditional market research with others, such as observation in context. According to Slater and Narver (1998), customer orientation does not guarantee competitive advantage in a dynamic environment, since it represents an insufficient stimulus to innovation and discontinuous change. Market orientation, however, when combined with an entrepreneurial orientation, promotes a better performance of the company in the long run (Atuahene-Gima & Ko, 2001).

Several studies have been exploring the interactive effect of market and entrepreneurial orientation on business performance (e.g. Boso, Cadogan & Story, 2013; Hakala, 2011; Nasution, Mavondo, Matanda & Ndubisi, 2011). Smart and Conant (1994) presented a study indicating that entrepreneurial orientation is positively and significantly related to distinctive marketing competencies and organizational performance. Baker and Sinkula (2009) also showed that, at least in small businesses, entrepreneurial orientation and market orientation are complementary and have a positive effect on profitability. The authors concluded that firms with a strong entrepreneurial orientation, but without a strong market orientation, are more likely to discover new opportunities but fail in converting them into effective value to customers, hindering firm's profitability. In a comparative study between cross-country samples with different orientations, Jones, Suoranta & Rowley (2013) found that the sample with greater focus on entrepreneurial orientation, market orientation and innovation orientation gained performance benefits relatively to the sample with greater focus on customer orientation alone. The positive relationship between marketing and entrepreneurship was also found in the Portuguese context. When studying the effect of entrepreneurial orientation and market orientation on the performance of industrial SMEs, Rodrigues (2004) found a complementary and synergetic influence of both orientations. This effect is particularly relevant for companies in high technology industries (Zahra, 2008).

Schindehutte, Morris and Kocak (2008) believe that, in the case of entrepreneurial firms, the concepts of market-driven and market-driving must be clarified. Whilst the first means orientation by the existing market, the second involves the creation of new markets through discontinuous jumps in the ways of creating value for customers and, sometimes, changing the competitive rules. This is, according to the authors, the essence of entrepreneurial action that creates competitive advantage and enables innovation to a greater pace. This is also the perspective that presents greater risks and for which

entrepreneurial marketing may provide a more fundamental contribution. Entrepreneurship can, then, start envisaging marketing as an important activity within the new venture, but it is necessary to ensure a balance between market orientation and innovation orientation so as to promote an optimized organizational performance (Atuahene-Gima & Ko, 2001).

Market orientation has not very often been acknowledged as an attribute of the entrepreneurial firm, mainly due to restrictions imposed by the scarcity of resources available to create and sustain the organizational culture to support it (Becherer, Halstead & Haynes, 2001). However, entrepreneurial companies, primarily focused on innovation, do not necessarily have to lose sight of the client. In fact, the opposite may occur. Taking advantage of their small size, these companies are able to maintain a continuous and direct contact with the needs and wishes of consumers, without having to invest in market research that they cannot afford (Collinson & Shaw, 2001). In continuously interacting with the environment, the entrepreneur manages to reinterpret his/her vision and the way to implement it (Hultman, 1999). It should be noted, however, that market orientation and the ability to create superior value is highly dependent on the perspective and attitude of the entrepreneur, who has a fundamental role in the management style adopted by these companies. In small and new businesses, this entrepreneurial marketing perspective fits naturally in their way of acting and in their needs, and, when applied correctly, it may provide them great benefits. The configuration that entrepreneurial marketing assumes is not very clear, though. Some contributions of the literature to draw its outlines are presented in the next section.

3.4. Entrepreneurial marketing characteristics

In his highly cited paper *A generic concept of marketing*, Kotler (1972) describes marketing management as a normative science involving the creation and offer of values, in an efficient manner, to stimulate desired responses in others. According to the author, «effective marketing consists of intelligently analysing, planning, organizing, and controlling the marketing effort» (Kotler, 1972, p. 52). Forty years later, such line of thought continues to mark out modern marketing management. Within this frame of reference, Kotler and Armstrong (2010) maintain that marketing managers should, first and foremost, be able to analyze the market in order to understand the marketplace and customer needs, which can be achieved through extensive market research and information management. What follows next is the design of a customer-driven marketing strategy, involving marketing segmentation,

targeting and differentiation and positioning. The next step of the marketing process is planning to create an integrated marketing program, including all decisions about marketing mix. The authors argue that all these analytical and planning efforts are made to sustain the next step, which is the creation of relationships with customers and other marketing partners. Finally, the last step is to capture value from the customer in return of the effort previously made.

There are evident differences, however, between managerial marketing and entrepreneurial marketing (Hills, Hultman & Miles, 2008). Coviello, Brodie and Munro (2000) argue that, although small firm marketing practices have long been assessed at the light of existing marketing models based on large firm practices, marketing practices vary across firm sizes, namely concerning market planning, where smaller firms are found to be more informal than larger firms. Stokes (2000a) also found that entrepreneurs assimilate marketing practices in a different way. He found that entrepreneurial firms have a bottom-up approach to segmentation, starting from niches and then opening their reach to other markets. The author also found that they usually practice an interactive marketing based on a close relationship with their clients, from the outset, which allows them responding rapidly to their changing needs. Instead of doing market research, entrepreneurs tend to get information they need from their personal networks (Stokes, 2000a). Even though, Coviello, Brodie and Munro (2000) still find similarities between smaller and larger firms' practices, which means that marketing does not need to be reinvented, it just has to be reshaped and adapted to these firms' needs.

From the study of the interface, the entrepreneurial marketing concept emerged. Morris, Schindehutte and LaForge (2002) note that entrepreneurial marketing is presented in a variety of forms, although it is frequently associated with resource challenged small firms, which develop creative, but low sophisticated tactics, relying heavily on the personal relations of the entrepreneur. Entrepreneurial marketing may be described as marketing-in-context, meaning that different approaches can be used depending on the type of challenges these companies face and on the inherent characteristics of the entrepreneur/manager/owner and his/her competencies (Carson & Gilmore, 2000b).

Generally, entrepreneurial marketing is portrayed in literature as putting a strong focus on change and having proactive orientation towards innovation, opportunity seeking and value creation (Mort, Weerawardena & Liesch, 2012; Hills, Hultman & Miles, 2008; Maiti, 2006; Collinson & Shaw, 2001; Carson & Gilmore, 2000a; Stokes, 2000a). Additionally, entrepreneurial marketing depends on the capabilities of the entrepreneur to perform marketing, these capabilities being inherent or learned through experience (Carson & Gilmore, 2000b). Entrepreneurial marketing is also intrinsically related to

relationship building (Zontanos & Anderson, 2004), networking and generally disconnected from formal marketing intelligence (Jones, Suoranta & Rowley, 2013).

Some attempts have been made to identify the core elements that constitute the entrepreneurial marketing construct. Morris, Schindehutte and LaForge (2002) presented a conceptual work, in which, on the basis of literature on market orientation, entrepreneurial orientation and entrepreneurship, they propose seven dimensions for entrepreneurial marketing. They are: opportunity-driven, proactiveness, innovation focused, customer-intensity, risk management, resource leveraging and value creation. Some of these elements were found in subsequent empirical studies. When studying entrepreneurial marketing in born global firms, Mort, Weerawardena and Liesch (2012) identified four core strategies associated to the concept: (i) focus on opportunity creation and innovative exploitation; (ii) development of value-based strategies around customer intimacy; (iii) focus on getting market acceptance or legitimacy; and (iv) resource leveraging, allowing doing more with less. Resource leveraging was also one of the six elements that Maiti (2006) proposes as constituting entrepreneurial marketing, along with customer intensity; sustainable innovation; strategic flexibility; calculated risk-taking and environmental pro-activeness. Entrepreneurial marketing exhibits differences from traditional marketing, not only in terms of strategic approach, but also in terms of marketing mix. Zontanos and Anderson (2004) make a case for the inseparability of entrepreneurship and relationship marketing and, based on that, offer a different set of four P's. As they say, the classic four P's «should not be directives, but should be seen as analytical tools focusing on understanding *people* and *process*, to create *purpose* and effective *practices*» {italics added} (Zontanos & Anderson, 2004, p. 234). Due to the relational nature of the entrepreneurial process, the 'P' from people assumes a very high relevance in the entrepreneurial marketing mix (Kolabi, Hosseini, Mehrabi & Salamzadeh, 2011; Martin, 2009). A summary of some main characteristics of entrepreneurial marketing presented in literature is depicted in Table 3.2.

Table 3.2. Summary of some main contributions on entrepreneurial marketing characteristics

Marketing dimensions	Findings and propositions	Study [T – Theoretical; E – Empirical]
Strategic focus	<p>Value innovation, co-created marketing and low-cost marketing.</p>	Hallböck and Gabrielsson (2013) - E
	<p>Customer intimacy based innovative products. EM follows value-based strategies.</p>	Mort, Weerawardena and Liesch (2012) - E
	<p>SME's focus on presenting a unique proposition based on innovative marketing, which is dependent upon uniqueness, newness and unconventionality.</p>	O'Dwyer, Gilmore and Carson (2009) - E
	<p>Focused on fully meeting all the customer's needs by employing creativity and innovation.</p>	Hills, Hultman and Miles (2008) - E
	<p>Entrepreneurial Marketing (EM) champion innovations that are new to the world, to the country or to the market.</p>	Maiti (2006) - E
	<p>Flexibility to balance pioneering initiatives that lead the market and creative adaptations to changing market conditions.</p>	Maiti (2006) - E
	<p>The focal point of entrepreneurial marketing is innovative value creation. The task of the marketer is to discover sources of customer value and to create new combinations of resources to produce value. It is innovation focused, ranging all aspects of marketing. It is customer-intensive, involving strong and often emotional relationships. It focuses on innovative approaches to create new relationships or using existing ones to create new markets.</p>	Morris, Schindehutte and LaForge (2002) - T
	<p>Firms studied tend to start with an idea, and then try to find a market for it, which is the opposite of what marketing literature prescribes.</p>	Stokes (2000a) - E
Decision making process and planning	<p>Focus on opportunity creation, which differs from opportunity discovery and exploitation. Opportunities are actively created as challenges emerge.</p>	Mort, Weerawardena and Liesch (2012) - E
	<p>Few firms carry out any formal market planning. They are opportunity driven.</p>	Hills, Hultman and Miles (2008) - E
	<p>The entrepreneurial marketer is pro-active, developing environmental management strategies that serve to alter when, where and how firms compete. It is opportunity-driven. Entrepreneurial marketing not only focuses on environmental scanning activities, but also uses a creative insight to detect opportunities beyond the current customer, products and business boundaries. Marketing efforts are made to minimize risks (e.g. strategic alliances and test markets, among others).</p>	Morris, Schindehutte and LaForge (2002) - T
	<p>Smaller firms are more informal than larger firms in terms of marketing planning.</p>	Coviello, Brodie and Munro (2000) - E

Table 3.2. (Continued)

Marketing dimensions	Findings and propositions	Study [T – Theoretical; E – Empirical]
	Marketing decision making in small firms is simplistic and haphazard, undisciplined and spontaneous, unstructured, irrational and short term focused.	Carson (1998) - T
Marketing objectives	Business owners often mix personal goals and preferences and business goals.	Hills, Hultman and Miles (2008) - E
	Smaller firms use fewer ways to measure market performance than larger firms.	Coviello, Brodie and Munro (2000) - E
Marketing research	Formal market intelligence is not carried out, since it is resource consuming. When done, it is an implicit activity using direct contacts and networks instead of formalized processes.	Jones, Suoranta and Rowley (2013) - E
	Absence of formalized market research activities. Information is gathered by interaction with the market. These firms tend to rely on experience, immersion, and intuition.	Hills, Hultman and Miles (2008) - E
	Entrepreneurial firms studied do not apply formal market research methods. Instead, they prefer to gather information through networks of contacts involved in the business. Word-of-mouth communications are a common source of innovative ideas.	Stokes (2000a) - E
Market segmentation	Instead of doing the commonly recommended segmentation, they practice a 'bottom-up' targeting process, serving the needs of a few customers first and expanding their client base gradually.	Stokes (2000a) - E
Marketing mix	Entrepreneurial firms tend to be tactically flexible and focus their efforts on promotion and selling.	Hills, Hultman and Miles (2008) - E
	Four entrepreneurial P': people; process; purpose and practices.	Zontanos and Anderson (2004) - T
	Direct dialogue with customers is often the unique selling point of the business. They rely on interactive marketing and word-of-mouth instead of applying the existing models of the marketing mix.	Stokes (2000a) - E
	SME's pragmatically adapt the 4P's concept to make it relevant to the way they do business. They implement a marketing program, but minimize its comprehensiveness and complexity to suit their unique capabilities and circumstances.	Carson and Gilmore (2000a) - T

As stated by Welsh and White (1981), small businesses are not little big businesses. Additionally to their small size, entrepreneurial firms face specific environmental conditions and have different internal characteristics that influence their managerial and marketing practices. Literature shows that the entrepreneur, as decision maker, has an important role in dealing with those conditions, especially regarding his/her capability of using his/her personal relations to compensate for scarce

resources. The following topics will briefly address the internal and external context of entrepreneurial firms that affect their marketing practices and the role of the entrepreneur as a major player in shaping them.

3.5. Internal and environmental conditions

Entrepreneurial firms show, by nature, an outstanding inherent ability to detect and exploit opportunities to benefit from (Shane & Venkataraman, 2000). The ability to radically innovate is also what distinguishes those businesses (Markides, 1997). Acs and Audretsch (2003) argue that, until the 1970's of the last century, the predominant position in the literature was that large companies were in a better position to innovate, mainly due to their availability of resources resulting from economies of scale. The authors also highlight that more recent empirical studies evidence that small entrepreneurial firms play a vital role in generating innovations. In fact, it is not unusual to see entrepreneurial firms with inferior resources overcoming superior established firms (Dew, Sarasvathy, Read & Wiltbank, 2008b). Christensen and Bower (1996) explain that the established and successful companies can lose their leadership positions in industry because they face a disincentive to invest in new technologies, since they will cannibalize the source of return of the old ones. Established firms often debate with the exploration versus exploitation balance (Ireland & Webb, 2007). New challengers do not face this disincentive, which leads them to contribute with a greater proportion of radical innovations (Praag & Versloot, 2008).

Although entrepreneurial firms are ideas rich, they typically face resource challenges regarding their ability to develop and implement them effectively (Kropp & Zolin, 2005). In fact, when studying the constraints and limitations of small businesses that affect marketing practices, severe resource restrictions, both in terms of financial capability and technical and marketing expertise are highlighted (Gilmore, Carson & Grant, 2001). Hills, Hultman & Miles (2008) also add the lack of economies of scale, a limited geographic market presence, a limited market image, little brand loyalty or market share, decision-making under more imperfect information conditions than in larger firms, scarcity of time to dedicate to major management tasks, shortage of professional managers and mixture of business and personal goals, as conditions that affect the view and performance of marketing in entrepreneurial firms. Gruber (2004) points out size as a major factor affecting their access to

resources and youth as having implications in terms of marketing expertise, reputation and customers and partners' trust.

Gruber (2004) also notes that the challenges posed by new ventures' limited resources are accentuated by the fact that these companies act in a context of uncertainty and turbulence. The context, where entrepreneurship takes place, offers opportunities but also imposes boundaries and challenges to the entrepreneurial action (Welter, 2011). Read et al. (2009) conclude that, when operating in an uncertain scenario, entrepreneurs' marketing approaches tend to differ from the traditional ones. One of these differences is related to the restricted possibility of making predictions much needed to complete formal plans, typically used when regular marketing activities are undertaken (Collinson & Shaw, 2001).

Morris, Schindehutte and LaForge (2002) maintain that it is precisely this turbulence that is at the core of much criticism towards traditional marketing, which has led to the emergence of new approaches to marketing. These approaches assume names such as *guerrilla*, *relationship*, *buzz*, *viral*, *digital*, *permission* and *radical marketing*, which are more tactical orientated and communication focused. The authors propose to incorporate these tendencies in the entrepreneurial marketing concept, which they define as an integrator construct that conceptualizes marketing in an era of change, complexity, chaos, contractions and dwindling resources.

Beverland and Lockshin (2004) believe that, when acting in such an environment, the entrepreneur faces a paradox: on the one hand, focusing on the daily activities gives him/her a fast response capability and enables him/her to seize opportunities to innovate. On the other hand, the complex scenario deprives him/her of the needed stability to define lines of direction, which may undermine the coherence of the business. This conflict may, according to the authors, be solved by developing a strong commitment to the positioning and brand values, which gear the overall strategy of the company in a flexible way, allowing maintaining the pro-active perspective that results in the use of different marketing approaches to address day-to-day problems.

Conversely, adverse conditions, both at micro and macro levels, that new businesses face can have a positive effect, especially in high technology industries. The pressures of instability force them to innovate, take risks, developing, thus, an entrepreneurial attitude that, under these conditions, promotes the growth and profitability, as shown in the research by Zahra and Neubaum (1998).

It may be concluded that the challenges posed by environmental hostility seem to be better accommodated within an entrepreneurial perspective, but these same conditions, combined with internal restrictions, tend to shape the marketing practices, ascribing them a different configuration from the traditional one. In that sense, entrepreneurial marketing is designed both by internal conditions, such as resource constraints and the profile of the entrepreneur, and by external factors, which include turbulence, constant change and difficulty in predicting the future (Stokes, 2000a). A summary of some contributions to describe the specific conditions in which entrepreneurial firms compete is presented in Table 3.3.

Table 3.3. Summary of some main contributions on internal and environmental factors affecting entrepreneurial marketing

Factors	Findings and propositions	Study [T- Theoretical; E – Empirical]
Resource constraints	Entrepreneurial firms have to deal with severe resource constraints, a marked scarcity of time per major management tasks and a shortage of professional managers.	Hills, Hultman and Miles (2008) - E
	The small size of new firms is linked with both financial and human resource constraints and the lower skill diversity that also affect the ability to perform marketing activities. It promotes, however, high degree of effectiveness and efficiency in the marketing efforts. The newness of the firms is associated to high learning costs and temporary inefficiencies. It is also the source of lack of trust by potential customers and other parties and is also related with the lack of experience in marketing.	Gruber (2004) - T
	SMEs face limited resources, such as finance, time and marketing knowledge.	Gilmore, Carson and Grant (2001) - E
Innovation and creativity	SMEs succeed by exploiting opportunities that established and larger firms have either ignored or have not been able to exploit due to more rigid structures.	O'Dwyer, Gilmore and Carson (2009) - E
	Due to lack of resources, new ventures develop imaginative forms of marketing that are low-cost, but produce a strong impact on the marketplace.	Gruber (2004) - T
	A model of SME marketing should include innovative marketing. The innovative capacity of SMEs is not restricted to product innovation; instead, it covers the whole spectrum of SMEs' marketing activities. Innovative marketing activities are driven by factors such as resource constraints and minimal differentiation relative to competitors; therefore, they are forced to use creative ways to add value to their offer.	Carson & Gilmore (2000b) - T

Table 3.3. (Continued)

Factors	Findings and propositions	Study [T- Theoretical; E – Empirical]
	New entrants can sometimes outperform established firms by reinventing the rules of the business.	Markides (1997) - E
	New ventures can be more innovative than established firms because they are not pressured to profitably explore old technologies that can be cannibalized by new ones.	Christensen & Bower (1996) - E
Environmental adversity	<p>Internal limitations are exacerbated by problems of uncertainty and turbulence, which are unavoidable aspects of entrepreneurship.</p> <p>The predictability of market data is limited, due to the high degree of uncertainty and turbulence surrounding innovative solutions and new markets. Thus, critical decisions in marketing are often made in a trial-and-error basis.</p> <p>Since the competitive structure of the industry is changing, relationships with suppliers, distributors and other players are unstable.</p>	Gruber (2004) - T
	The context for entrepreneurial marketing is fragmented, dynamic, and hostile, including having to serve emerging markets. Here, the marketer must act as innovator and change agent.	Morris, Schindehutte and LaForge (2002) - T
	New ventures frequently face adverse conditions. This environmental adversity encompasses macro, competitive, market and technological hostility.	Zahra and Newbaum (1998) - E

3.6. The role of the entrepreneur and social networking

The decision making process in an entrepreneurial firm is dominated by one or few individuals and the entrepreneur has a huge impact on the firms' behaviour (Hultman, 1999; Carson & Gilmore, 2000b). Whilst in conventional marketing management the decision making process is formal, sequential and structured in nature, in small business it is very dependent on the entrepreneur/manager/owner and it is intuitive in a way that is natural to him/her (Carson, 1998). Entrepreneurial marketing is, then, established upon the entrepreneurs' capabilities to do marketing (Carson & Guilmore, 2000a).

Along with the marketing capability of the entrepreneur, another basic resource for the development of entrepreneurial marketing is the relational competence. In fact, relationship marketing is very often associated to entrepreneurial marketing (Chaston, 1997a). The relational competence is

on the basis of the development of the networking activity, one of the main tools used by new firms to compensate for the scarcity of resources. Entrepreneurial networking refers to either inter-organizational networks, which occur at the organizational level and are more formal, or to personal and social networks, which are more informal and established at the individual level (O'Donnell, Gilmore, Cummins & Carson, 2001). The importance of networks to small businesses marketing is a well-established fact in literature (McLoughlin & Horan, 2002; Wilkinson, 2001). Studies on entrepreneurship show that, in the case of new ventures, networking is based on professional contacts, including customers and competitors, but also in personal and informal contacts and serves to support several marketing decisions, being regarded as a key resource by the entrepreneurs (Jones, Suoranta & Rowley, 2013; Gilmore, Carson & Grant, 2001; Stokes, 2000a). The role of social networks as a way to obtain the necessary resources, including legitimacy, in the process of establishing and starting the new company is specifically explored in several studies (e.g. Salavisa, Videira & Santos, 2009; Greve & Salaff, 2003; Elfring, & Hulsink, 2003; Jenssen & Koenig, 2002; Jenssen, 2001). Entrepreneurs do marketing in a natural way, which is inherent to their daily communication activities, either by participating in social or in business events. The extent of the social network of the entrepreneur is relevant for both the recognition of opportunities (Arenius & De Clercq, 2005) and their successful exploitation (Bergh, Thorgren & Wincent, 2011). In fact, there is evidence that more dense networks and deeper relationships with important stakeholders are associated with higher entrepreneurial performance (Pinho & Sá, 2013). Aspelund, Madsen & Moen (2006) also found in the published research on the internationalization of new business several references to the important role of social networks of the entrepreneurs in the process of international marketing, particularly with regard to decisions on selection of target markets and entry modes. There is also evidence of a positive relationship between entrepreneurs' social networks and their personal success and financial performance (Baron & Markman, 2003; Brüderl & Preisendörfer, 1998). As highlighted by Achrol and Kotler (1999), in the new millennium, knowledge is the most important economic resource. For these authors, networking is best suited to a knowledge environment due to its superior capabilities in terms of information processing. A summary of some propositions and research results on the importance of entrepreneurs in the marketing decision making process is presented in Table 3.4.

Table 3.4. Summary of some main contributions on entrepreneur's related factors affecting entrepreneurial marketing

Factors	Findings and propositions	Study [T- Theoretical; E – Empirical]
Entrepreneur's vision guidance	The way entrepreneurs interpret the external marketing environment and their vision establishes the guidance for the firm's decision-making process.	O'Dwyer, Gilmore and Carson (2009) - E
	The vision for the business emerges, develops and changes in the entrepreneur's mind, as well as the ideas about how to implement his/her vision. This fluid vision allows him/her to rapidly adapt to environmental changes in the short run. The entrepreneur is geared by general knowledge, experience and intuition.	Hultman (1999) - T
	Most decisions are highly dependent on the entrepreneur/owner/manager, who, most of the times, is involved in all aspects of firm's activities.	Carson (1998) - T
Marketing competencies	Due to the limitation of marketing personnel, new ventures often lack critical skills in marketing.	Gruber (2004) - T
	A model of SME marketing should include competency marketing, i.e., the entrepreneurs' ability to practice marketing according to their inherent and learned skills to do marketing. Experiential learning is a core entrepreneurial competence and is defined as learning acquired on the basis of experience and knowledge developed upon and from communication and judgment. Developing experiential learning and, therefore, competency marketing, enhances marketing effectiveness.	Carson and Gilmore (2000a) - T
	Management competencies, namely in marketing, are very important to small firms due to the conditions they face. While many entrepreneurs bring technical competence to their business, they also have had little prior marketing management decision-making experience. Those capabilities are developed over time through experiential learning.	Carson and Gilmore (2000b) - E
Personal and professional networks	Entrepreneurs' social networks are crucial, especially in the first stages of the business. Networks are used to get funding, to access and mobilize technological knowledge, to manage knowledge and information on market opportunities and to find skilled workers.	Salavisa, Videira and Santos (2009) - E
	The higher the entrepreneurs' social competence is, the greater their financial success will be.	Baron and Markman (2003) - E
	Social relations are very important in establishing a firm, since entrepreneurs use their social capital to access resources in different phases of the establishment process.	Greve & Salaff (2003) - E
	Particularly in the case of high technology firms, networks are important to discover opportunities, to secure resources and to obtain legitimacy.	Elfring and Hulsink (2003).

Table 3.4. (Continued)

Factors	Findings and propositions	Study [T- Theoretical; E - Empirical]
	Networking is a marketing competence that can be developed as a way of doing marketing for SMEs. Personal and business relationships are central to entrepreneurial marketing.	Gilmore, Carson and Grant (2001) - E
	A model of SME marketing should include networking marketing. Networking for entrepreneurs is a haphazard, disjoint, spontaneous and opportunistic process, consisting in one-to-one relationships. Networking does not have to be constructed because it is an integral part of the everyday business activity.	Carson and Gilmore (2000b) - T

Literature shows that marketing can, in fact, benefit new firms and that they do implement marketing practices that are different from managerial prescriptions. The question of whether marketing needs to become more entrepreneurial is discussed in the next section.

3.7. Why does marketing need to be entrepreneurial?

As previously exposed, a fairly large body of literature indicates that new and small firms can benefit to a great extent from marketing, in order to mitigate the risks of newness and increase the odds of business and products' success (Vorhies, Morgan, & Autry, 2009; Zimmerer & Baglione, 2009; Udell & Hignite, 2007; Carson & Gilmore, 2000a; Cooper, 1994; Hisrich, 1992; Brooksbank, 1991). From another perspective, research on entrepreneurial orientation shows that attributes, such as technological and product innovativeness, strong risk taking propensity, autonomy, pro-activeness, and competitive aggressiveness (Lumpkin & Dess, 2001, 1996; Covin & Slevin, 1989) are not only beneficial to small companies (Chaston, 1997b), but also to established firms and even to the public sector, at least to some degree and within certain organizational structures (Phan et al., 2009; Morris & Jones, 1999; Zahra, 1993; Covin & Slevin, 1991, 1988). Research also shows an interactive effect between market orientation and entrepreneurial orientation on business performance (e.g. Baker & Sinkula, 2009; Rodrigues, 2004; Matsuno, Mentzer & Özsomer, 2002; Atuahene-Gima & Ko, 2001; Smart & Conant, 1994), which is particularly relevant for companies in high technology industries (Zahra, 2008). These conclusions show the importance of exploring further the entrepreneurial marketing concept. One way to do it is to present a picture of how entrepreneurial marketing must look

like. One interesting contribution to this perspective is made by Jones and Rowley (2009), who present a framework to explore entrepreneurial marketing orientation in SMEs, incorporating some aspects of entrepreneurial orientation, market orientation, innovation orientation and customer/sales orientation, drawn from earlier literature on these measurement scales. Another perspective to understand entrepreneurial marketing is to explore the reasons why some small firms and new ventures practice marketing that is foreign to mainstream marketing books. Some studies point the specificities of their context, which include some aspects as prosaic as resource constraints (Hills, Hultman & Miles, 2008; Morris, Schindehutte & LaForge, 2002; Gilmore, Carson & Grant, 2001) and environmental adversity (Zahra & Newbaum, 1998).

Entrepreneurial marketing may, however, be approached from the point of view of one of the most important elements of the entrepreneurial process, which is the entrepreneur. Literature shows the relevance of entrepreneurs in shaping entrepreneurial marketing, namely through their vision (O'Dwyer, Gilmore & Carson, 2009; Hultman, 1999), their marketing competencies (Carson & Gilmore, 2000b) and their ability to build opportunities and exploit resources through personal and social networks (Salavisa, Videira & Santos 2009; Greve & Salaff, 2003). Thus, as marketing in new ventures may be shaped by an entrepreneurial mindset (Kraus, Harms & Fink, 2010) and environmental adverse conditions (Zahra & Newbaum, 1998), the focus of the research on entrepreneurial marketing can be directed towards the entrepreneur, that has to make decisions under high levels of uncertainty about almost everything concerning to his/her business's future.

Uncertainty, especially in the case of commercialization of radical innovations involving the introduction of new products in new markets (Sarasvathy, 2003, 2001), is, in fact, one of the most marked and determinant characteristics of the entrepreneurial environment. In this context, uncertainty assumes the meaning ascribed to it in the early 1920s by Knight (1921). The author of *Risk, Uncertainty and Profit* distinguishes the term risk, which refers to a level of uncertainty that can be measured and, therefore, allows a certain amount of predictability, from the term uncertainty, that does not permit any kind of measurability, since situations in this category are, in a high degree, unique. Situations where their future profits cannot be calculated in advance are often found by entrepreneurs and, because probabilities are unknown, entrepreneurship typically entails true uncertainty as opposed to risk (von Gelderen, Frese & Thurik, 2000).

Uncertainty derives from the lack of or incomplete information and knowledge about the future (Jalonen, 2011), which is related to the level of novelty associated to new businesses in different

dimensions, namely the market, the production processes and management (Shepherd, Douglas & Shanley, 2000). Matthews and Scott (1995) present several definitions of environmental uncertainty based on a literature review, highlighting dimensions such as lack of knowledge for decision making, complexity, unpredictability and turbulence. While some uncertainties may be described as objective, ultimately there are the entrepreneurs' perceptions about the environment that define the level of uncertainty that they experience. The authors also note that uncertainty concerns the lack of information regarding one or several levels, specifically: environment variables, their potential effects on business and the options to deal with them. Jalonen (2011) identifies in literature eight different factors related to the innovation process that create uncertainty, whereas Souder and Moenaert (1992) propose four, and Freel (2005) and von Gelderen, Frese and Thurik (2000) identify three levels of uncertainty, which can be summarized in the following main categories: uncertainty regarding the product; uncertainty regarding the market and industry and uncertainty about the general environment. There is also an additional level that may influence the others, which is the uncertainty about the individual capacities.

As for the product related uncertainty, it involves doubts about the product feasibility, specification and technological processes (Jalonen, 2011), but also about the needed resources and required skills to successfully manage the innovation process (Freel, 2005; von Gelderen, Frese & Thurik, 2000; Souder & Moenaert, 1992). At the market and industry level, there are huge uncertainties about whether or not there will be acceptance and legitimation of the innovation and whether its introduction in the market will produce unexpected changes and consequences (Jalonen, 2011; Souder & Moenaert, 1992). There are also uncertainties about the competitive structure and its change and complexities (Freel, 2005; Gelderen, Frese & Thurik, 2000). Regarding the general environment uncertainty, it reflects the ambiguity about the regulatory/institutional context, particularly when radical innovation is involved; the social/political instability, resulting from diverging interests among stakeholders (Jalonen, 2011); and also the dynamic or hostile economy (Freel, 2005). Additionally, the perceptions of uncertainty can also relate to the particularities of the individual. Doubts about one's capacities to manage innovation successfully and the fear of failure are sources of uncertainty to take into account (Jalonen, 2011; Gelderen, Frese & Thurik, 2000). The novelty underlying these different levels of uncertainty is responsible for high mortality risks. However, these risks are lowered by information acquisition and dissemination that comes in time as ignorance decays by passive learning (Shepherd, Douglas & Shanley, 2000).

The inability to make accurate predictions, while information is scarce, makes some classic management approaches and traditional marketing tasks, in particular, less relevant. Not making formal plans, for instance, is one of the issues that distinguish entrepreneurial marketing from traditional marketing (Hills, Hultman & Miles, 2008; Coviello, Brodie & Munro, 2000). Decision making under uncertainty cannot be made in a logic of prediction, goals setting and planning when environment is constantly and quickly changing. One method to deal with the uneasiness of making decisions under uncertainty that has been suggested by management literature is scenario planning. It allows telling multiple stories to cover different plausible future developments (Chermack, Lynham & Ruona, 2001), against which the robustness of several strategies can be tested (O'Brien, 2004).

Scenario planning is not always successfully applied, however, as Bowman, MacKay, Masrani and McKiernan (2013) found. In fact, in some cases the possible future developments are totally impossible to deduce or the decision maker lacks the knowledge to imagine them. Consequently, other more immediate and learning-by-doing approaches may be used to cope with such context. For instance, Loch, Solt and Bailey (2008) suggest that trial-and-error and selectionism can be used to learn from the effects of a decision in an uncertain context. According to the authors, trial-and-error consists of the redefinition of the new venture's decisions and models as new information emerges from trials, which can require a longer learning period. Selectionism, on the other hand, allows running different trials in parallel and learning quickly from the best succeeded, but it involves higher costs. Entrepreneurs must be able to assess the situation and choose the most appropriate strategies. Sarasvathy (2001), who proposes the effectuation theory detailed ahead, detected that when uncertainty is very high, entrepreneurs tend to use the affordable loss principle, which means that they invest only what they are willing to lose. That may, then, be a criterion to adopt one of the mentioned learning strategies.

The learning capacity is often highlighted as being critical to acquire and process decision making information. Miner, Bassof and Moorman (2001) distinguish three types of learning: improvisation, which refers to unplanned actions that assume some format as they occur; trial-and-error, which involves developing actions that might or might not be planned, from which results information is extracted to define future actions and experimentation, which is the use, in a systematic and deliberated form, of different conditions in order to understand cause-effect relationships. Holcomb, Ireland, Holmes Jr. and Hitt (2009) note that, besides being acquired by direct experience, which is named experiential learning, knowledge may also be acquired in two other different ways. One is by

observing the actions of others and their consequences, that is, by paying attention to someone else's behaviours in order to assimilate and organize these observations as a model, which is called vicarious learning. The other consists of resorting to legitimate sources as books and articles. The authors stress that, in any case, the intensity and speed of information acquisition influences the quality and effectiveness of learning, which is related to the effectiveness and efficiency of the processing capacity.

It can be expected that a marketing decision making process that is able to cope with such ambiguity and that shows a high learning capacity assumes higher relevance to entrepreneurial firms, but it may also be useful to established firms, since today's uncertainty is an attribute of virtually every environment in which marketing takes place (Read et al., 2009a). As Reibstein, Day and Wind (2009) note, marketing is losing ground to other disciplines because it is falling behind in relevance within the fast changing environment in which we live today. For that reason, marketing researchers need to incorporate new perspectives in marketing theory, so as to set a better correspondence with the evolution of the real world. Hultman and Hills (2001) highlight that fundamental literature in basic marketing principles and marketing management remains very much the same as in the 1960s. According to the authors, the mainstream normative marketing management prescriptions are better suited for large multinational bureaucratic organizational firms acting in more stable business environments. They also agree that marketing needs to be modified, with less focus on rational analysis, functional thinking, and planning models.

3.8. Challenges to managerial marketing in an era of uncertainty

The debate around the marketing mid-life crisis arose about twenty years ago (Brady & Davis, 1993). Marketing started to be accused of being divorced from reality, but its crisis led to the rise of some back-to-basics reformulations, such as relationship marketing (Brown, 1995). This approach challenges the traditional marketing mix paradigm, turning the focus towards relations, networks and interactions instead of towards the 4 P's (Grönroos, 2002; Gummesson, 1994). The importance of networks and relationships with customers for the value creation process was also stressed by the Industrial Marketing and Purchasing Group (e.g. Hakansson & Snehota, 2006).

The idea of co-creation of value is in the very genesis of the service-dominant logic (Vargo & Lusch, 2004). Considered by its authors neither a theory nor a paradigm, rather an attitude, a way of

seeing, a mindset (Vargo & Lusch, 2008), this logic defies the traditional perspective on marketing, proposing that any product has no value in itself; instead, it is an instrument, vehicle or mechanism to enable a service (Vargo, Lusch & Malter, 2006). It is only when the client uses the company's offer, integrated with other resources available in the context of his/her life, that value is created (Vargo, Lusch & Malter, 2006).

This idea of the consumer becoming a part of the process, being a creator of experiences, rather than a target for products, and experience immersion into thematic settings within a social environment, was also proposed by some postmodernist authors (Aubert-Gamet & Cova, 1999; Cova, 1996). This co-creation approach has implications in several aspects of marketing, including marketing research. According to Jaworski and Kohli (2006), marketing cannot continue to approach the customer needs as an external subject of study in a set period of time. Instead, the authors think that both the firm and its customers must engage in a learning process that requires an open dialogue, a conversation with adjustments, over many periods of time. Other concepts have been emerging, such as the Blue Ocean strategy, which is based on the idea of value innovation (Kim & Mauborgne, 1996) and asserts that markets can be created rather than conquered, making competition irrelevant (Kim & Mauborgne, 2004, 2005). It is worthy to note, however, that there is some evidence that the Blue Ocean and the competitive strategy must not be mutually exclusive. Burke, Van Stel and Thurik (2009) found evidence that companies can use both strategies simultaneously in different time horizons, being the greatest challenge for the companies to find the optimal blend between the two.

The most critical voices of traditional marketing management come, however, from the postmodernist movement. Particularly during the early to the mid-1990s, some authors assumed an open and sometimes aggressive confrontation with the traditional marketing principles, practices and research perspectives (e.g. Firat & Shultz II, 1997; Firat, Dholakia & Venkatesh, 1995; Brown, 1994; 1993; Douglas & Saren, 1991) Phillip Kotler and his contributions to the development of the modern marketing management theory and practice is one of the main targets. Postmodern authors refer to an 'anti-kotletite' sentiment opposing to the managerial paradigm or the «dominant rhetoric of analysis, planning, implementation and control» (Smithee, 1997, p. 322). Although postmodernist ideas were often disregarded, and the postmodernists seen as the «the whipping boys (and girls) of the marketing academy, a bunch of crazies spouting strange predictions about the imminent demise of the discipline and the need to rethink our field's most fundamental premises» (Brown, 2006, p. 212), some of their criticism is gaining relevance.

Most of these ideas and trends are embodied in the descriptions of entrepreneurial marketing (e.g. Morrish, Miles, & Deacon, 2010; Gruber, 2004; Morris, Schindehutte & LaForge, 2002; Stokes, 2000a; Carson, 1998). For instance, Morrish, Miles & Deacon (2010) incorporate the concepts of Blue Ocean strategy and co-creation, co-production and service dominant logic in their description of entrepreneurial marketing comparatively to administrative marketing. Zontanos and Anderson (2004) also suggest that entrepreneurs and small business owners do not define marketing mix in terms of the 4 P's, preferring interactive and relationship marketing. The link between a relational orientation and entrepreneurial marketing was also explored by Chaston (1998; 1997a), and it is found in several studies of entrepreneurial marketing, as described earlier (e.g. Gilmore, Carson & Grant, 2001; Stokes, 2000a). In a sense, some postmodern marketing ideas that revolve around ambiguity, disorder, differences and complexities, contrasting to the conceptual underpinnings conveyed by textbooks based on the modernist assumptions of analysis and control (Brown, 1993), are also present in entrepreneurial marketing.

3.9. Section summary

Entrepreneurial marketing research emerged from the study of the marketing practices of small companies and evolved to focus on entrepreneurial firms. It has been studied within the entrepreneurship field and within the marketing field and some authors argue that entrepreneurial marketing is a study area in its own right. A growing body of literature has been describing the characteristics and conditions of entrepreneurial marketing, while also showing that entrepreneurship and marketing can be mutually beneficial. However, like entrepreneurship, neither the boundaries of the research nor the concept have matured yet.

The study of entrepreneurial marketing gains higher relevance as the business context becomes more complex and unpredictable. Literature shows that the managerial marketing theory began to be subject to criticism for some years now, and that the discipline calls for updating insights. Acknowledging that, researchers start trying to understand how a more suitable kind of marketing for entrepreneurial settings should be. Research is still fragmented, though, and no dominant theory has emerged yet.

Whether or not entrepreneurial marketing can contribute to increasing marketing effectiveness in the current uncertainty settings is the question to be answered. Ultimately, one may say that there is no good or bad marketing, but only marketing decisions that are or are not appropriate under given circumstances. This point of view focuses the analysis on the entrepreneur and his/her decision making process, which tends to invert the causal reasoning that lies under most traditional marketing decisions. The next section deepens this approach by contextualizing it within the cognitive theory of entrepreneurship, describing the logic and principles and establishing the bridge with entrepreneurial marketing.

4. Literature review: effectuation theory

The entrepreneurial decision making model based on the effectual rationality developed by Sarasvathy (2001) «inverts every aspect of causal rationality, including its problem space, solution process, fundamental principles, and overall logic» (Read & Sarasvathy, 2005, p. 50). It is a theory of entrepreneurial expertise (Sarasvathy & Dew, 2008). Although the model was first proposed concerning the decisions involved in the creation of a new firm, the author consider that a general theory of effectuation may be developed to address different types of decision, including in the marketing domain. This model was designed to fit a context were it is necessary to make decisions about something that does not exist yet and, therefore, involves «choosing particular effects that may or may not implement intentional goals» (Sarasvathy, 2001, p. 244). The author gives the example of the launching of a new product. If the market to address is already known, traditional marketing techniques such as market research and segmentation can presumably be used. However, marketing to yet non-existent ones requires imagining how markets come to be. Effectuation is all about making decisions in an uncertain scenario that is more and more frequent. Using an analogy, Sarasvathy (2003) argues that around the small, cosy and comfortable clearing in the woods, where everything is known and clear and where traditional models of decision making based on causal rationality can be used, «[...] stretches the vast, relatively unexplored jungle where goal ambiguity, knightian uncertainty, and endogenous markets dominate the landscape» (p. 206). In this context, the only given fact is the effectuator's set of starting means and aspirations (Sarasvathy, 2001).

The effectuation theory will be presented in more detail ahead and its links with entrepreneurial marketing will be established. Before that, we look at the roots of the effectuation theory, which are drawn on the cognitive approach to entrepreneurship.

4.1. Cognitive approach to entrepreneurship

As briefly presented earlier, in the section dedicated to the entrepreneurship field of research and concept, entrepreneurship is not yet a well-defined and well-understood phenomenon. Some researchers have dedicated more attention to the entrepreneur, others to the process. However, as

Baron (2004) states, «*trying to understand the entrepreneurial process without considering entrepreneurs is like trying to bake bread without yeast* - an essential ingredient that makes the entire process happen is missing» [italics in the original] (pp. 222-223). Both the mind and the actions of the entrepreneur are subject of interest. This perspective highlights the fact that everything that human beings think, say or do, is influenced by cognitive mechanisms, through which information is acquired, stored, transformed and used (Baron, 2004).

This approach also assumes that, because entrepreneurs work under specific situations and circumstances (such as information overload, time pressures, high levels of uncertainty and strong emotions) their decisions tend to be distorted by cognitive biases and heuristics (Baron, 1998). These biases can either benefit or hinder the entrepreneurial success. The escalation of commitment, for instance, translated into the idea 'there is too much invested to quit' (Baron, 1998), may lead the entrepreneur to persevere in a difficult situation beyond the point others would. This can, obviously, either result well or conduct to a ruinous outcome, depending on future events that may be impossible to anticipate. In fact, understanding how individuals deal with less than optimal conditions to make decisions is one of the central aspects in cognitive studies.

The cognitive perspective in the study of entrepreneurial behaviour draws back to the concept of approximate rationality, which results, precisely, from the fact that human beings have to make decisions with both limited access to information and limited processing capability (Simon, 1955). In such conditions and in order to minimize mental effort, «individuals and groups simplify a decision problem because of the difficulties of anticipating or considering all alternatives and all information» (March, 1978, p. 591). Several decades ago, Simon (1956) raised doubts about the usefulness of the economic and statistical theories of rational behaviour. This 1978 Nobel Prize in Economics argued long ago that it was necessary to replace the classical models of rational choice for a model of bounded rationality, in situations involving making decisions under uncertainty and imperfect competition (Simon, 1979). The researcher maintains that one of the ways that decision makers use to deal with these limitations is to look for satisfactory choices instead of optimal ones. This is achieved either by simplifying the world to make decisions nearer to optimal, or finding satisfying (a mix of satisfying and sufficing) solutions for a more realistic world. In short, «bounded rationality is about the limits upon the ability of human beings to adapt optimally, or even satisfactorily, to complex environments» (Simon, 1991, p. 132).

The rational process of reaching optimal decisions seems especially difficult for the entrepreneurs, given the ambiguity of newness, resulting from ignoring all the alternatives, uncertainty about exogenous events and incapability to predict consequences (Simon, 1979). It is now widely recognized that people rarely use exhaustive analysis when making judgements under uncertainty, relying, instead, on simplifying strategies, commonly named heuristics (Holcomb et al., 2009).

The theoretical elements of effectuation are based on empirical investigations that provided insights into how entrepreneurs think, act and make decisions in such conditions (Sarasvathy & Dew, 2008). This logic inverts the principles and processes that are usually associated with a causal or predictive approach to reasoning (Sarasvathy, 2003), as will be described in more detail hereafter.

4.2. The logic and principles of the effectual rationality

As the author of this theory (Sarasvathy, 2003, 2001) explains, the causal rationality assumes that one can establish goals and focus on selecting a set of means that provide the fastest, cheapest and more efficient way to achieve the intended effects or goals. This is based on the belief that we can anticipate and select a future goal or effect. Consequently, causation relies on analysis and prediction. Entrepreneurship, however, is all about uncertainties and ambiguity, making predictions very difficult. The author found that entrepreneurs think and behave effectually instead. This signifies that entrepreneurs start with the only thing that they have for sure, which is a set of given means and focus on imagining possible effects that can be produced with those means.

As effectuation is a way of making decisions and a characteristic of human behaviour, the entrepreneur is

[...] the essential agent of entrepreneurship [...]: an imaginative actor who seizes contingent opportunities and exploits any and all means at hand to fulfil a plurality of current and future aspirations, many of which are shaped and created through the very process of economic decision making and are not given a priori. (Sarasvathy, 2001, p. 262).

Therefore, the author proposes that the entrepreneur is an effectuator that follows an aspiration, being able to visualize a set of actions to transform his/her idea into a firm. This logic is summarized in Table 4.1.

Table 4.1. Basic differences between causal and effectual thought

Issue	Causal or Predictive Position	Effectual Position
View of the future	Prediction. The causal approach views the future as a continuation of the past that may be acceptably and usefully predicted.	Creation. The effectual approach views the future as contingent on actions by wilful agents, largely non-existent and a residual of actions taken. Prediction is unimportant as a result.
Basis for commitment	Should. Commit as a course of maximizing, analysis, and what should be done.	Can. The effectual approach is to do what you can (what you are able to do), rather than what your prediction says you should.
Basis for taking action and acquiring stakeholders	Goals. The causal approach is to let goals determine sub-goals. Commitment to particular sub-goals determined by larger goal constrained by means. Goals determine actions, including individuals brought on board.	Means. Actions emerge from means and imagination. Stakeholder commitments and actions lead to specific sub-goals. Feedback from achievement/non-achievement of subgoals leads to the design of major goals.
Planning	Commitment. Path selection is limited to those that support a commitment to an existing goal.	Contingency. Paths are chosen that allow more possible options later in the process, enabling strategy shift as necessary.
Predisposition toward risk	Expected Return. The causal approach is to pursue the (risk adjusted) maximum opportunity, but not the focus on downside risk.	Affordable Loss. The effectual approach is to not risk more than can afford to be lost. Here, the calculation is focused on the downside potential.
Attitude toward outside firms	Competition. The causal approach is to be concerned with competition and constrain task relationships with customers and suppliers to just what is necessary.	Partnership. The effectual approach is to create a market jointly, building YOUR market together with customers, suppliers and even prospective competitors.

Source: Read & Sarasvathy (2005, p. 52).

Effectuation is neither a characteristic of entrepreneurs that makes them different from nonentrepreneurs, nor a behaviour in itself (Sarasvathy & Dew, 2008). It is a way of entrepreneurial thinking, referring to cognitive processes, that may be able to direct behaviour and it is based on principles that, aggregated, form the effectuation construct (Chandler et al., 2011). The basic principles or sub-constructs (Perry, Chandler & Markova, 2012) of effectual reasoning can be summarized as follows:

i) *Control an unpredictable future rather than predict an uncertain future.* While rational choice rests on logic of prediction, effectual entrepreneurs assume the logic of non-predictive control, i.e., effectuators believe that they can control an unpredictable future, since it is contingent on the actions of the agents involved, and, therefore, can be skewed through their action (Sarasvathy & Dew, 2005). This view is aligned with the social constructionist perspective that is currently regarded as an alternative way to advance the development of entrepreneurship research (Lindgren & Packendorff, 2009). For instance, Baker and Nelson (2005) found in their study that entrepreneurs do not see opportunities as something objective and external, but, rather, as a result of the process of construction of both their businesses and environments through action.

ii) *Begin with a given set of means rather than a set of goals.* The decision maker has a unique role in problem solving process through effectuation. Therefore, the characteristics of the entrepreneurs, namely who they are, what they know, and whom they know, represent the means that they have in the starting point of the decision making process. Based on their given means, combined with contingencies, entrepreneurs will choose among many imagined effects that are constructed along the effectuation process (Sarasvathy, 2001). This principle is also consistent with the emerging theoretical perspective of entrepreneurial bricolage, in which entrepreneurs do what they can with what they have at hand (Baker & Nelson, 2005). While causation sets goals as a starting point, effectuation implies that goals are creatively devised along the entrepreneurial path, emerging from sub-goals determined by means and stakeholders' commitments (Sarasvathy & Dew, 2005).

Sarasvathy and Dew (2005) explain that *who they are* refers to the identity of the entrepreneurs, which consists on preferences about the way they decide and the way they live, not about particular outcomes of that, since they can be unpredictable. The authors note that when the goals are ambiguous, entrepreneurs may explain their decisions in terms of their identities instead of their preferences. This mean includes traits, abilities and attributes of the entrepreneur (Dew, Read, Sarasvathy & Wiltbank, 2008a). Nielsen and Lassen (2012) offer an interesting supplement to this principle, by challenging the idea of identity as a pre-mean of effectuation. From a social constructivist perspective, they suggest that effectuation is also a process of identity construction. That is, it is not just a matter of effectuating resources, but also being able to experiment with and learn about 'who they are'.

What they know comprises entrepreneurs' past experience, their expertise in different domains and their educational background (Dew et al., 2008a). Expert entrepreneurs tend to rely more on what

they know, instead of what they might believe in, acknowledging that predictions are difficult, which describes a logic of action resulting on knowledge: one only knows what to do and where to go, by doing and going (Sarasvathy & Dew, 2005).

Finally, *Whom they know* relates to the interactions and relations with committed stakeholders. Sarasvathy and Dew (2005) highlight the importance of interactions in the entrepreneurial decision making, being more important the commitments with whom entrepreneurs know than transactions. Ultimately, the identity of the entrepreneurial project is a construction resulting from interactions with other human beings. «The fundamental agenda for the effectuator then becomes, *What effects can I create, given who I am, what I know, and whom I know?*» {Italics in the original} (Dew et al., 2008a, p. 49).

iii) *Affordable loss rather than expected returns as decision criteria.* As it is frequently acknowledged, limitation of resources is one of the characteristics of entrepreneurship (Hills, Hultman & Miles, 2008; Gruber, 2004; Gilmore, Carson & Grant, 2001). When entrepreneurs have to make decisions between possible strategic options, effectuator tends to privilege the criterion of loss minimization, to the detriment of the maximization of returns, used under the causation logic. In this way, the entrepreneur is able to experiment with as many strategies as his/her limited means possibly allow. The decisions are, then, geared by what entrepreneurs are willing to put at risk, or can afford to lose, in order to follow a certain course of action (Dew et al., 2009b). That requires creativity from all stakeholders involved. As stated by Sarasvathy and Dew (2008, p. 729), «the willingness to lose the investment—or more accurately, the creativity that each stakeholder exercises to bring the idea to market with zero resources invested—obviates the necessity to place substantial “bets”». Since firms' failure depends on a huge variety of factors, making them difficult to predict and reduce, the entrepreneur can only control the costs of failing, manage failures and outlive them (Sarasvathy, 2001).

iv) *Focus on developing partnerships rather than depending on competitive analysis.* Competitive analysis is generally recognized to be an important task in the definition of the competitive advantages and positioning (Kotler et al., 2009; Porter, 1985). Effectuators, however, rely more often on forming partnerships to create new markets and establish pre-commitments with stakeholders to reduce uncertainty and raise barriers to new entrants (Sarasvathy, 2001). This is consistent with research that shows the importance of networks for entrepreneurship (e.g. Salavisa, Videira & Santos, 2009; Greve & Salaf, 2003) and the importance of creating new markets (Kim & Mauborgne, 2004, 2005).

v) *Focus on leveraging contingencies, rather than on exploiting pre-existing knowledge.* One of the main objectives of causal analysis and planning is to identify future events that can threaten firm's objectives and competitive position, in order to avoid them. On the contrary, effectuation assumes that the entrepreneur must be open to surprises and leverage them to create new opportunities (Sarasvathy, 2001). This action-oriented perspective allows taking advantage of unexpected situations, rather than avoiding them on the grounds that they would not fit the planned path. Sarasvathy and Dew (2005) quote an interviewee, who participated in the first research that gave rise to the effectuation theory, which illustrates that perspective:

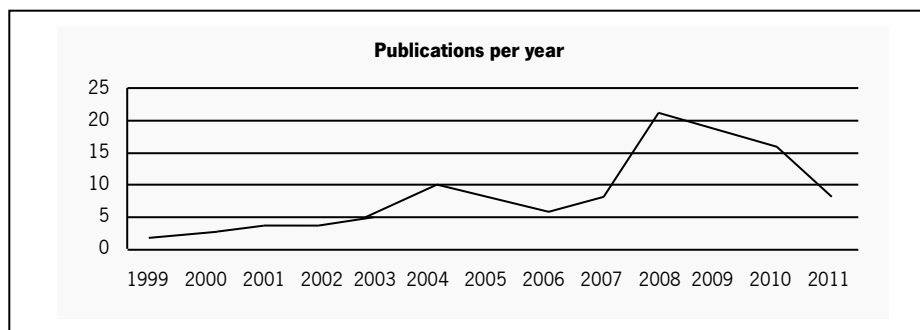
I've always tended to be very sceptical about market research studies. I always live by the motto of "Ready-fire-aim". I think if you spend too much time doing ready-aim-aim-aim-aim, you're never gonna see all the good things that would happen if you actually start doing it and then aim.

Effectuation has common points with other emerging theories and perspectives, as previously mentioned. For instance, Fisher's (2012) study on entrepreneurial behaviours highlights similarities between effectuation and bricolage. As Stinchfield, Nelson & Wood (2013) describe it, «bricoleurs' identity is tied to "making it work," which usually meant by any means or timeframe necessary» (p.16). Fisher (2012) suggests that an integrative perspective regarding behaviours involved in entrepreneurial processes that take place under uncertain and resource-constraint environments should be developed in the future. The very authors of the effectuation theory identify common theoretical ground with the service dominant (S-D) logic, particularly regarding the co-creation activity, viewed as an heuristic that entrepreneurs use to control the uncertainties related with creating new firms, products and markets (Read & Sarasvathy, 2012).

Perry, Chandler and Markova (2012) consider that the behaviours related to the effectuation principles may be observed and tested through methods that are able to capture them and to differentiate causal and effectual rationalities. Several research studies have been using the theory and the principles to interpret empirical observations of entrepreneurial behaviours. Some examples of the research using the effectuation theory are presented in the next section.

4.3. Effectuation theory applications

The effectuation theory is an empirically validated and testable model. Since it was proposed, several researchers have suggested and implemented operationalizations of the logic and its principles. Research on effectuation has not grown quickly, though, and only more recently we start to find more empirical applications. Perry, Chandler & Markova (2012) believe such delay in effectuation generalization is due to the fact that effectuation represents a paradigm shift, it challenges the conventional and established wisdom about entrepreneurship, which results in a natural resistance. The authors also acknowledge that the difficulties of developing consistent and observable behavioural variables, from a cognitive perspective, and measures of effectuation and causation logics may have delayed the effectuation research to take off. The authors stress the fact that other theories and challenging ideas also had a slow emergence, let alone in the field of entrepreneurship, where there is everything but consensus. However, according to Ghorbel and Boujelbène (2013), who carried out an extensive literature review on effectuation from 1999 to 2011, covering more than 120 articles, it may be considered that effectuation was able to attract considerable research attention over the last decade, with a rapid increase in the number of publications in the last three years, as Figure 4.1. shows. The authors found that 10 publications were made per year on average, ranging from one to 22, including theoretical, qualitative and quantitative studies alike. The authors also concluded that almost 40% of the effectuation articles are published in highly cited journals in the field of entrepreneurship, which they name the Big 5, including *Entrepreneurship and Regional Development*, *Entrepreneurship: Theory and Practice*, *Journal of Small Business Management*, *Small Business Economics* and, with a particular relevance, *The Journal of Business Venturing*.



Source: Ghorbel and Boujelbène (2013, p. 175).

Figure 4.1. Classification of publications on effectuation according to the year

Focusing on the more recent years, we can find applications of the effectuation theory, using different methodologies and targeting diverse purposes and organizational contexts. For instance, assuming effectuation as a theory of entrepreneurial expertise, Dew et al. (2009a) demonstrate that while entrepreneurial experts frame their decisions on an effectual logic, allowing them, among other things, to identify more potential markets, novices tend to rely on the predictive rationality and 'go by the book' more often. Despite his discussion about validity issues of the study, Baron (2009) commended the work made by these authors for their creative contribution to building conceptual links between entrepreneurship and other fields, such as the cognitive science, preparing grounds for additional informative research.

In their study, Dew, Read, Sarasvathy and Wiltbank (2011) focused on contrasting the view of new market creation as a result of search and selection processes with the view of new market creation as resulting from a transformation process, i.e., a new market can just be an unanticipated consequence of the actions of the entrepreneurs and their partners. Results showed that expert entrepreneurs using transformation processes related to the effectual reasoning produced more new market ideas than novices that learned techniques of search and selection of markets. Bhowmick (2011) found that resource-limited entrepreneurs, i.e., entrepreneurs with little starting means, exercise effectual control through a relational dynamic with stakeholders and that they attempt not to control the future but to enhance the present means.

Not only the relationship of effectuation and entrepreneurial expertise was explored, but also the link between the effectual principles and performance was object of empirical verification. Read, Song and Smit (2009) conducted a meta-analysis of the articles published in the *Journal of Business Venturing*, summarizing data from 9897 new ventures, and found empirical support for a positive relationship between the effectual approach to strategy making and new venture performance. Another empirical study by Wiltbank, Read, Dew and Sarasvathy (2009), focusing on the business angels use of predictive versus non-predictive control strategies to make investment decisions, showed that angels that relied on non-predictive control were able to reduce their investment failures without, however, reducing their number of successes, confirming the advantages of using the affordable loss principle as a decision making criterion.

Recognizing that previous studies had already made some important contributions for the operationalization of the effectuation theory, Chandler et al. (2011) developed validated measures of both causation and effectuation processes and analyzed empirical distinctions between the two. They

suggest, however, that future research is needed in order to continue examining and refining the variables proposed. The authors also note that the current understanding of the effectuation theory does not provide reliable measures to accurately predict performance of new firms using this decision making logic. Nonetheless, Harms and Schiele (2012) use the scale developed by Chandler et al. (2011) to study the effectual behaviour within the international entrepreneurship context. Other authors have attempted to develop scales to measure entrepreneurial behaviours (e.g. Brettel, Mauer, Engelen, & Küpper, 2012; Küpper & Burkhart, 2009).

Andersson (2011) and Mainela and Puhakka (2009) also applied the effectuation theory to the international entrepreneurship context, but using qualitative methods. Other contexts where effectuation was used include established firms (Brettel et al., 2012; Duening, Shepherd, & Czaplewski, 2012) and entrepreneurial education (Mäkimurto–Koivumaa & Puhakka, 2013).

While the interest about effectuation has been rising more quickly within management studies, the particular area of marketing decision making has received little attention. However, in face of the criticism that traditional marketing receives due to its inadequacy to uncertainty contexts, more recently effectuation also started to be considered within this discipline (Hoffman & Vian, 2011). The application of effectuation to marketing was already suggested by Sarasvathy (2001) when the theory was first proposed. The author conjectures that, when making marketing decisions, effectuators should be less likely to use traditional marketing, such as formal market research, being, instead, more likely to «to dive straight into seat-of-the-pants marketing/selling activities and alliances» (p. 361). In an essay on the past and present of entrepreneurial marketing research, Hills and Hultman (2011) also explicitly suggest the use of effectuation to understand entrepreneurial marketing behaviours.

Whalen and Holloway (2012) offer an empirical attempt to integrate the effectuation and marketing theories. They propose the concept of effectual marketing planning. While based on a logic of control, it takes into account the challenges that new ventures face. Planning cycles as short as one month, less complexity, more focus on sales tactics and on short-term survival, allocation of the existing resources and integration of both positive and negative feedback from market are some of effectual marketing planning characteristics. Effectuation theory is also introduced in the study of marketing practices by new ventures funded by millennials (Lingelbach, Patino & Pitta, 2012).

Read et al. (2009a) suggested that entrepreneurial marketing follows an effectual logic by presenting significant evidence that successful and experienced entrepreneurs rely, to a greater degree

than novice managers, on the effectual reasoning to make marketing decisions. They believe that effectual logic brings texture to the entrepreneurial spirit of marketing and highlight the fact that effectuation overlaps with the ways marketing theories are evolving. Therefore, this seems to be an interesting perspective to explore the entrepreneurial marketing concept. The fact that this area is only now gaining some relevance presents an interesting research opportunity, strengthened by the fact that a conceptual consistency can be found, as presented hereafter.

4.4. Effectuation and entrepreneurial marketing

Some recent publications suggest that this bridge can be established in order to develop the knowledge on how marketing can be more entrepreneurial. Kraus et al. (2012) suggest that effectuation principles should be considered, noting that marketing theory and practice still assume the principles of causal reasoning, but «EM (entrepreneurial marketing) indicates that successful marketing can be better created along paths other than those suggested within traditional marketing literature» (p. 21). Hansen & Eggers (2010) also consider that the interface research domain may be framed by adequate theories such as effectuation. However, neither of these researchers proposes how to use effectuation theory to advance the entrepreneurial marketing field. Following the idea of Perry, Chandler and Markova (2012), who suggest that, at the present state of development, relationships between effectuation and other constructs should be pursued, in order to explore whether it is conceptually related to other theories, we seek to identify theoretical communalities between effectuation logic and principles and entrepreneurial marketing as it is described by previous literature.

Hallbäck and Gabrielsson (2013) note that «the concept of entrepreneurial marketing has been considered especially powerful in describing smaller, younger, and resource-constrained entrepreneurial firms» (p. 1). As mentioned previously, entrepreneurial marketing is mainly focused on innovation, opportunity leveraging and value creation (Collinson & Shaw, 2001; Carson & Guilmore, 2000b; Stokes, 2000a).

Entrepreneurial marketing, as described by researchers such as Hills, Hultman and Miles (2008); Morris, Schindehutte and LaForge, (2002); Coviello, Brodie and Munro (2000); Stokes (2000a, 2000b); Carson (1998) and others, resembles the characteristics of the actions arising from the effectual reasoning. On the contrary, administrative or managerial marketing, which Sarasvathy (2001)

exemplifies pointing to the Segmentation-Targeting-Positioning process and other procedures recommended by marketing authorities such as Philip Kotler, follows a causation perspective. Table 4.2. and Table 4.3. present a list of general marketing topics, showing the causal logic that traditionally supports them, in contrast with a summary of findings and propositions from literature about entrepreneurial marketing and the effectual logic that seems to underlie them.

Table 4.2. Linking entrepreneurial marketing literature findings with effectual versus causal reasoning: *Strategic analysis and marketing decision making*

Marketing topics	Causal or predictive reasoning	Entrepreneurial Marketing (findings and propositions from literature)	Effectual principles and logic
<p>Vision, goals and marketing decision making criteria and process</p>	<p>Actions to achieve goals in terms of expected returns.</p> <p>Goals are the starting point.</p> <p>The decision making process is effortful and analytic (systematic processing).</p>	<p>Decisions are highly dependent on the entrepreneur that interprets the external marketing environment. His/her vision establishes the guidance for the firm’s decision-making process (Carson, 1998; O’Dwyer, Gilmore & Carson, 2009).</p> <p>Business owners often mix personal goals and preferences and business goals (Hills, Hultman & Miles, 2008).</p> <p>The vision for the business emerges, develops and changes in the entrepreneur’s mind, as well as the ideas about how to implement his/her vision. This fluid vision allows adapting rapidly to environmental changes in the short run. The entrepreneur is guided by general knowledge, experience and intuition (Hultman, 1999).</p> <p>Marketing efforts are made to minimize risks (e.g. strategic alliances and test markets, among others) (Morris, Schindehutte & LaForge, 2002).</p>	<p>Means are the starting point.</p> <p>‘Who I am’ (traits, tastes, and abilities) shapes future actions.</p> <p>‘What I know’ (skills, education, expertise and experiences).</p> <p>The vision determines who the partners will be.</p> <p>The future is creative and co-created.</p> <p>Affordable loss.</p> <p>Creative ways to do low cost marketing is a way to gain some control over impacts of possible failure.</p>

Table 4.2. (Continued)

Marketing topics	Causal or predictive reasoning	Entrepreneurial Marketing (findings and propositions from literature)	Effectual principles and logic
Marketing environment analysis Marketing intelligence	To the extent future can be predicted it can be controlled . Decision maker uses formally obtained information to predict environmental changes.	The entrepreneurial marketer is pro-active, developing environmental management strategies that serve to alter when, where and how firms compete (Morris, Schindehutte & LaForge, 2002). Predictability of market data is limited, due to the high degree of uncertainty and turbulence surrounding innovative solutions and new markets. Decisions in marketing are often made in a trial-and-error basis (Gruber, 2004). The context for entrepreneurial marketing is fragmented, dynamic, and hostile, including having to serve emerging markets. Here the marketer must act as innovator and change agent (Morris, Schindehutte & LaForge, 2002).	Non-predictive control Action and short-term oriented. The future is unpredictable but it can be controlled in the extent it is co-created by entrepreneurs and stakeholders - Means; - Who I am; - What I know.
Internal analysis (Resources)	What is needed to efficiently produce the known and intended future outcome (physical, human, financial, and others). Marketing expertise is an important resource.	Entrepreneurial firms have to deal with severe resource constraints, scarcity of time and shortage of professional managers (Hills et al., 2008; Gilmore, Carson & Grant, 2001). The newness of the firms is associated to high learning costs and temporary inefficiencies. (Gruber, 2004). Entrepreneurial marketing is established upon the decision makers' capabilities to perform marketing, being them inherent or learned through experience (Carson & Guilmore, 2000a). Developing experiential learning and, therefore, competency marketing, enhances marketing effectiveness (Carson & Gilmore, 2000a).	Intangible, operant resources (given): - Who I am, - Who I know, - What I Know. What they have to develop action Resources are dynamic and grow through entrepreneurial action.
Marketing strategy and competitive analysis	Segmentation-Targeting-Positioning. Markets are known. Competitive analysis to protect and maximize share.	Instead of doing segmentation, entrepreneurs practice a 'bottom-up' targeting process, few customers first and expanding the client base gradually (Stokes, 2000a). New ventures tend to start with an idea, and then try to find a market for it (Stokes, 2000a). Focus on presenting a unique proposition based on innovative marketing, which is dependent upon uniqueness, newness and unconventionality (O'Dwyer, Gilmore & Carson, 2009).	Leverage contingencies Expand to new markets if the opportunity arises. Create new markets. Strategic partnerships. Partner with other players to create new markets and add value to the offer.

Table 4.3. Linking entrepreneurial marketing literature findings with effectual versus causal reasoning: *Marketing planning and implementation*

Marketing topics	Causal or predictive reasoning	Entrepreneurial Marketing (findings and propositions from literature)	Effectual principles and logic
Marketing planning	<p>Exploit knowledge.</p> <p>Plans are a way to organize knowledge and information to make future decisions.</p>	<p>Entrepreneurial marketing is opportunity-driven. It uses a creative insight to detect opportunities beyond the current customer, products and business boundaries (Morris, Schindehutte & LaForge, 2002).</p> <p>Entrepreneurial marketing has the creative capacity for resource leveraging (Morris, Schindehutte & LaForge, 2002).</p> <p>Innovative marketing activities are driven by factors such as resource constraints and minimal differentiation relative to competitors; therefore, they are forced to use creative ways to add value to their offer (Carson & Gilmore, 2000a).</p>	<p>Leverage contingencies.</p> <p>Imaginative thinking of new possibilities.</p> <p>Transform unexpected events into opportunities.</p>
Market research	<p>Formal research with survey techniques of known markets.</p>	<p>Absence of formalized market research activities. Information is gathered by interaction with the market. Tendency to rely on experience, immersion, and intuition (Hills, Hultman & Miles, 2008).</p> <p>Entrepreneurial firms do not apply formal market research methods. Instead, they prefer to gather information through networks of contacts involved in the business. Word-of-mouth communications are a source of innovative ideas (Stokes, 2000a).</p>	<p>Alliances and partnerships.</p> <p>With all stakeholders, including customers – relevant information from informal sources.</p>
Value chain	<p>Clients, suppliers, and intermediaries are chosen to better fit strategy and future developments.</p>	<p>Support from the personal network improves survival and growth of new firms and is central to entrepreneurial marketing (Brüderl & Preisendörfer, 1998; Gilmore, Carson & Grant, 2001).</p> <p>Networking for entrepreneurs is a haphazard, disjoint, spontaneous and opportunistic process (Carson & Gilmore, 2000a).</p> <p>Entrepreneurs' networks are crucial, especially in the first stages of the business, to get funding and knowledge, and to manage knowledge and information on market (Salavisa, Videira & Santos, 2009).</p>	<p>Strategic partnerships.</p> <p>People entrepreneur knows and others that he/she encounters in the course of action co-create value and assume several roles, such as market research.</p>

Table 4.3. (Continued)

Marketing topics	Causal or predictive reasoning	Entrepreneurial Marketing (findings and propositions from literature)	Effectual principles and logic
<p>New product development and Markets and relationship with customers.</p>	<p>Exploit knowledge. Market research to identify needs and development of products to meet those needs.</p>	<p>New entrants can sometimes outperform established firms by reinventing the rules of the business (Markides, 1997). SMEs succeed by exploiting opportunities that established and larger firms have either ignored or have not been able to exploit due to more rigid structures (O'Dwyer, Gilmore & Carson, 2009). Focused on fully meeting all the customer's needs by employing creativity and innovation (Hills, Hultman & Miles, 2008). The focal point of entrepreneurial marketing is innovative value creation. The task of the marketer is to discover sources of customer value and to create new combinations of resources to produce value (Morris, Schindehutte & LaForge, 2002). It is customer-intensive, involving strong and often emotional relationships. Focuses on innovative approaches to create new relationships or using existing ones to create new markets (Morris, Schindehutte & LaForge, 2002).</p>	<p>Leverage contingencies. The end product is unpredictable. Markets are created and the value proposition changes along the way. Strategic partnerships. Partners take a part in the co-creation process. The product is open and adaptive. Relationships with customers are part of the product.</p>
<p>Marketing mix</p>	<p>Four P's are strategically combined to define the offer of value.</p>	<p>Entrepreneurial firms tend to be tactically flexible and to focus their efforts on promotion and selling (Hills, Hultman & Miles, 2008). Direct dialogue with customers is often the unique selling point of the business. Entrepreneurs rely on interactive marketing and word-of-mouth instead of applying the existing models of the marketing mix (Stokes, 2000a). SMEs pragmatically adapt the 4P's concept to make it relevant to the way they do business. They implement a marketing program, but minimize its comprehensiveness and complexity (Carson & Gilmore, 2000a).</p>	<p>Leverage contingencies. The 4 P's are designed around contingencies and involve a co-creation process with partners. 'Do-as-you-go'.</p>

Literature suggests a theoretical compatibility between effectual principles and entrepreneurial marketing practices. In the opposite direction, managerial marketing seems to be fairly well matched to a causal rationality. This consistency is empirically explored in our study, having as a reference the

operationalizations of the effectual principles made by Chandler et al. (2011) and Read, Song and Smit (2009), as well as the entrepreneurial marketing operationalization made by Jones and Rowley (2009), as shown in Table 4.4.

Table 4.4. Items representing Effectual and Entrepreneurial Marketing versus Causal and Managerial Marketing approaches

Effectuation/ Entrepreneurial Marketing	Causation / Managerial Marketing
<p style="text-align: center;">Leverage contingencies (Creation)</p> <p><i>Mindset (attitudes)</i></p> <ul style="list-style-type: none"> • Surprises are positive, since it is possible to benefit from unexpected events • It is important to be flexible so as to take advantages of marketing opportunities that arise • Marketing strategy is a work in progress • Attention is focused on change and clues for disruption • Focus on relevant information and ‘connect the dots’ • Markets are created and the future is made • Action-oriented • Marketing planning could be an exploration exercise 	<p style="text-align: center;">Exploit previous knowledge (Control)</p> <p><i>Mindset (attitudes)</i></p> <ul style="list-style-type: none"> • Avoid unexpected events that could threaten the intended marketing goals • Accept information as given • Marketing strategy is clearly defined and gears future actions • Markets are known and explored and the future can be anticipated (to some extent) • Analysis oriented • Marketing planning is a managerial tool
<p><i>Activities (behaviour)</i></p> <ul style="list-style-type: none"> • Use stakeholders knowledge to make marketing decisions • Retain information and decide according to entrepreneur’s identity • Try different approaches to market until finding the one that works • Experiment with different products and/or business models • Select courses of action that allow flexibility and adaptability • Evolve the business as opportunities emerge • Explore niches • Keep the product ‘open’ to be adapted to the customer (the product is now different from first imagined) • Encourage stakeholders to participate in the product definition • Maintain the value proposition adaptive 	<p><i>Activities (behaviour)</i></p> <ul style="list-style-type: none"> • Extensive environmental analysis – search information to control environment • Interpret information as objectively as possible • Make projections from past trends • Formal marketing strategy and plan • Organize and implement marketing control processes • Research segment and select target markets • Define the product to meet the needs of the market (the product sold is essentially the same as planned) • Devise ways to deal with unexpected changes • The value proposition is defined <i>ex-ante</i>

Table 4.4. (Continued)

Effectuation/ Entrepreneurial Marketing	Causation /Managerial Marketing
<p style="text-align: center;">Affordable loss</p> <p><i>Mindset (attitudes)</i></p> <ul style="list-style-type: none"> • Do not invest more than it is possible or one is willing to lose. • There are several options in the future that can explore the given means • Failures are natural. Failure must be managed and its costs controlled <hr/> <p><i>Activities (behaviour)</i></p> <ul style="list-style-type: none"> • Establish partnerships to share risks • Invest in marketing activities carefully, in order to not put the company's financial situation at risk • Invest in marketing only what can be afforded to be lost • Experiment with low cost actions in order to not lose much in case things do not work out • Experiment as many strategies as possible with the given limited means • Decide between marketing actions that allow lower losses • Devise creative ways to implement marketing actions • Imagine what can be done with what is given • If possible, bring ideas to the market with zero resources invested 	<p style="text-align: center;">Expected return</p> <p><i>Mindset (attitudes)</i></p> <ul style="list-style-type: none"> • Invest the necessary to attain the intended purposes • There is always an optimal strategy that maximizes return on investment • Clear and consistent vision of where it is intended to end up <hr/> <p><i>Activities (behaviour)</i></p> <ul style="list-style-type: none"> • Analyse strategic alternatives and the select the one with higher expected return • Pursue the maximum opportunity and raise the required means to do so • Define a marketing budget and distribute the money for activities that allow to achieve goals • Choose the more efficient means taking into account the characteristics of the effect that decision maker wants to create
<p style="text-align: center;">Partnerships</p> <p><i>Mindset (attitudes)</i></p> <ul style="list-style-type: none"> • Focus on value innovation • Competitors are also partners • Decisions are also dependent on whom one knows <hr/> <p><i>Activities (behaviour)</i></p> <ul style="list-style-type: none"> • Turn to partnerships to compensate for scarce resources • Use partnerships to create new markets • Establish agreements with partners, customers and others to enhance the value of the offer, reduce uncertainty and erect entry barriers • Pre-commit with partners and customers as soon and as often as possible • Privilege direct contacts with customers • Negotiate price • Invest on enlarging the network 	<p style="text-align: center;">Competitive analysis</p> <p><i>Mindset (attitudes)</i></p> <ul style="list-style-type: none"> • Focus on positioning and product differentiation • Decisions are based on strategic analysis <hr/> <p><i>Activities (behaviour)</i></p> <ul style="list-style-type: none"> • Competitive analysis • Positioning and differentiation • Serve existing markets better than competitors • Develop strategic analysis (such as SWOT and positioning map) • Decide how to beat competition • Benchmark • Select the most competitive channels • Define a price strategy • Internalize marketing actions considered strategic

Source: Based on Chandler et al. (2011); Jones and Rowley (2009) and Read, Song and Smit (2009).

4.5. Section summary

Effectuation theory is rooted in the cognitive study of entrepreneurship, which draws back to the concept of approximate rationality. This concept means that human capacity to decide optimally is constrained by the limited available information and also the limited processing capacity. The theoretical elements of effectuation are based on research about how entrepreneurs think, make decisions and act under such conditions.

The effectuation perspective inverts the logic of causal rationality, which assumes that one can establish goals and select the most efficient path to attain those goals. Such assumption lays on a logic of prediction, but the entrepreneurial reality shows that predictions are very difficult, since almost every aspect of the business, including the market, might be still in the process of creation. Therefore, effectuators begin with the only thing that they have for sure, which are their given means, and imagine different possible effects for their actions, influenced by contingencies and interactions.

The effectuation theory and its principles have been empirically validated, offering an interesting perspective to explore the entrepreneurial marketing decision making process and its outputs. In fact, literature shows that there is a conceptual compatibility between effectuation logic and principles and entrepreneurial marketing practices. On the opposite direction, the causal logic and principles are consistent with managerial marketing practices, as described in reference textbooks. Based on such background, the following section presents the theoretical model and research propositions that gear our study.

5. Conceptual framework and research propositions

Our research is based on several assumptions, mainly derived from existing theories and later reinforced by the results of the pilot interviews. Firstly, as previously exposed, literature suggests a consistency between entrepreneurial marketing practices and the effectual decision making process. Hence, in order to be able to contribute to the development of the entrepreneurial marketing concept, from the point of view of the decision making process, we propose to empirically understand and explore this alignment. The second point worthy of further exploration is the adequacy of entrepreneurial marketing to the circumstances under which entrepreneurs decide. That is to say, it is relevant to understand the decision making context and the effects of entrepreneurial marketing under different conditions. In fact, previous literature does not clarify whether entrepreneurial marketing is the most appropriate practice for entrepreneurial firms or if it is just what entrepreneurs can, in fact, put in practice given the specific circumstances that constrain their activity.

Some results from empirical studies, although scarce, indicate that effectual reasoning has a positive impact on new firms' performance (Dew et al., 2011; Read, Song & Smit, 2009; Krüpper & Burkhart, 2009), suggesting that if, in fact, entrepreneurial marketing is associated to effectuation, it may also represent benefits for entrepreneurs. Literature evinces that expert entrepreneurs show a natural tendency to think effectually comparatively to novice managers taught to think in a causal logic (Dew et al., 2009a; Read et al., 2009a). However, Sarasvathy (2001) agrees that the effectual approach may not be adequate in all entrepreneurial circumstances. The author notes that causation may well be a better or more effective process when the target market is known and the context is more stable. Similarly, different development stages of the firm might require different decision making logics. Sarasvathy (2001) proposes that

[...] 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 practices in recruitment and training of employees. (p. 261).

Previous research has also already given indications that it might not be advisable to adhere rigidly to the rule that an entrepreneurial style will always lead to better performance (Chaston, 1997b).

The author's study confirmed that the overall performance of new firms can be improved by adopting an entrepreneurial marketing style, but the results also seem to suggest that, at a certain point in the life of the firm, it might be more effective to become less entrepreneurial and adopt a more disciplined approach in order to consolidate growth. In the same way, the stage of industry development might also require different logics. Lumpkin and Dess (2001) found that, in early stages of industry, a proactive orientation favours performance, whereas in more mature stages a competitively aggressive frame of mind is more helpful. Sarasvathy (2001) also highlights this circumstance. The author proposes that «successful early entrants in a new industry are more likely to have used effectuation processes than causation processes. With later entrants, the trend could be reversed» (p. 260). Consequently, she suggests that it would be beneficial to know under what circumstances which type of decision making process allow better outcomes.

In view of the foregoing, three main elements are relevant to propose a theoretical frame of reference that leads the empirical investigation, corresponding to three main areas in the study of entrepreneurship (Stevensson & Jarillo, 1990). One of these areas explains *why* entrepreneurs act in a certain way. This dimension is based on a more psychological and sociological approach and focuses on the entrepreneur as an individual with values, objectives, motivations, but also his/her contexts. The second area is interested in knowing *how* entrepreneurs act, i.e., in understanding their managerial behaviour. Here, investigators analyse the way entrepreneurs achieve their goals, being the entrepreneurial management process the main focus. The last area accounts for *what* happens when entrepreneurs act. In this category, the researchers' main interest is about the results of the entrepreneurial action, which is more associated to an economic perspective. Our research focuses on the entrepreneurial marketing concept, cross-cutting these three dimensions, using the effectuation theory as guideline.

The conceptual model, presented in the next topic, leads to the exploration of entrepreneurial marketing approach and practices, as a result of an effectual decision making process, conditioned by the cognitive structure of the entrepreneur as a decision maker under uncertainty. A fourth element that accounts for the impacts of entrepreneurs' decisions and actions on the business's development is also incorporated, in order to understand the effects that entrepreneurial marketing provides under specific circumstances. The conceptual model leads to four groups of research propositions.

5.1. Conceptual framework

The theoretical model, represented in Figure 5.1, encompasses four parts accounting for the different elements and objectives of study. The focus is on entrepreneurial marketing practices, while also aiming at understanding how entrepreneurial marketing decisions are made and what their influences are. Additionally, we explore the impacts of different patterns of entrepreneurial marketing decision making, in order to understand the effect of different circumstances on entrepreneurial marketing results.

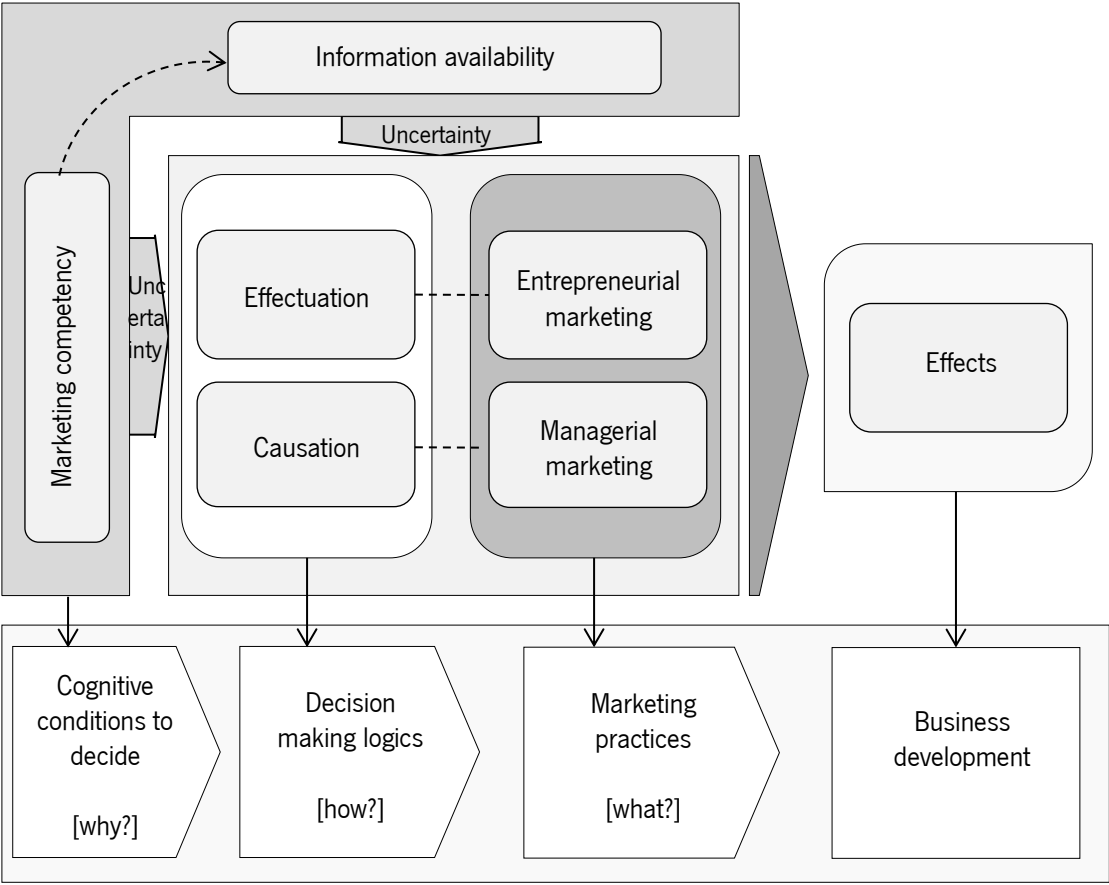


Figure 5.1. Conceptual Framework

The main purpose of focusing on entrepreneurial marketing is to better understand *what* kind of **marketing practices** result from the entrepreneurial decision making process and how this framework differs from managerial marketing prescribed by mainstream textbooks. Previous studies made important contributions (e.g. Jones, Suoranta & Rowley, 2013; Mort, Weerawardena & Liesch,

2012; Hills, Hultman & Miles, 2008; Maiti, 2006; Zontanos & Anderson, 2004; Morris, Schindehutte & LaForge, 2002; Collinson & Shaw, 2001; Carson & Gilmore, 2000a; Stokes, 2000a). We build on existing knowledge to further develop the description of the entrepreneurial marketing framework, based on the actions resulting from entrepreneurial decisions.

Therefore, entrepreneurial marketing practices are approached from the **decision making logics** perspective. This part of the model is concerned with the specificities of the entrepreneurial decisions, which are expected to follow an effectual rationality, as suggested by literature (Read et al., 2009a). The model explores *how* entrepreneurs decide by reference to the causation rationality. Based on their given means, combined with contingencies, it is expected that entrepreneurs choose between many imagined effects that are constructed along the effectuation process (Sarasvathy, 2001).

As every decision and practice occurs in a context, the model also explores the **cognitive conditions** that shape the entrepreneurs' marketing decision making process and marketing practices within constraints mainly derived from the characteristics of human beings as information processors and problem solvers (Baron, 2004; Simon, 1979; March, 1978). In this part, we intend to understand *why* entrepreneurs make decisions in a certain way, that is, to understand the circumstances that constrain their decision making process. Literature shows that both limited access to information and limited processing capability induce restrictions to the ability to adapt optimally to complex environments (Simon, 1991, 1956, 1955). Limited information translates into high levels of uncertainty that entrepreneurs manage using heuristics, i.e., simplifying strategies to make decisions (Alvarez & Buzenitz, 2001). Due to its proven benefits for firm's performance, marketing competency, which is considered an important entrepreneurial resource (Morgan, Vorhies, & Mason, 2009), is used in this model as a proxy for processing capacity. It is worth remembering that, according to the effectuation theory, the resources of the entrepreneurs, namely *who they are*, *what they know*, and *whom they know*, represent the only thing they have for sure, that is, the means that they have in the starting point of the decision making process (Sarasvathy, 2001).

Moreover, the model explores the impacts of the decision making process and relating marketing practices in terms of their **effects on business development**. By exploring these effects and connecting them to the previous elements, we intend to understand under what circumstances each decision making logic and marketing practice results in better outputs for the business development. Literature suggests that effectuation and causation are not mutually exclusive, instead,

the two logics might work in a complementary manner or alternatively in different spatial and temporal contexts (Sarasvathy, 2001). We explore the circumstances along the entrepreneurial process under which effectual rationality and/or causal rationality lead to more effective marketing decisions.

Literature on the effectuation theory offers important indications for us to recognize effectual and causal logics in action. Other elements of the model, such as the level of information available and marketing competency to make a particular decision, the impacts on business development and even the features of entrepreneurial marketing are derived from the content analysis during the qualitative phase of the study.

The elements of the model are not only explored in isolation, but also in connection with each other in order to deepen the knowledge about their interweaving. The next topics describe the connections that are explored in the study and present the research propositions.

5.2. Marketing practices and decision making logics

Coviello, Brodie and Munro (2000) point out that «according to the traditional view, marketing is described as a coordinated, integrated, and formal process of managing the marketing mix in relation to a clear set of measurable objectives. Furthermore, this process is captured in a formal document or plan» (pp. 526-527). The literature review shows, however, that formal marketing activities such as planning and market research are less often found in small and entrepreneurial firms (Coviello, Brodie and Munro, 2000; Stokes, 2000a). Entrepreneurs do not behave in the rational and sequential manner that is considered desirable by the administrative marketing theory, focusing constantly their minds, instead, on their markets, their vision and their customers' preferences, trying to find ways to continuously improve customer value, irrespectively of any previous plan (Hultman & Hills, 2001).

Based on literature, we expected to find a focus on individual customers or small niches, being the segmentation techniques of little relevance to entrepreneurs (Stokes, 2000a). We also expected to verify that new firms tend to privilege direct contacts with their clients and partners and that their strategies are rapidly adjusted to guarantee a constant flow of the value delivered (Morris, Schindehutte & LaForge, 2002). Creative marketing tactics and innovative marketing (Morris, Schindehutte & LaForge, 2002; Carson & Gilmore, 2000b) and resource leveraging through networking was also expected (Gilmore, Carson & Grant, 2001; Stokes, 2000a). Nevertheless, our expectation was also to

find some managerial marketing practices applied by entrepreneurs, since the two approaches have communalities (Coviello, Brodie & Munro, 2000). The ideas described above are reflected in Figure 5.2., extracted from the main conceptual model. Regarding this part of the model, we establish the following Research Proposition (RP):

RP1. *Entrepreneurial marketing* follows a *process* that differs from the *managerial marketing process* by placing less focus on activities such as defining strategies and planning and more on features such as interactivity. Notwithstanding, entrepreneurs may also implement managerial marketing practices.

Due to the theoretical compatibility between descriptions of entrepreneurial marketing practices and the effectuation logic of decision making, we further propose that this entrepreneurial marketing style is influenced by how entrepreneurs make decisions, as represented in Figure 5.2. Therefore:

RP2. *Marketing practices* implemented by entrepreneurs are influenced by their *decision logics*. It is expected that when performing *entrepreneurial marketing* activities, entrepreneurs tend to follow *effectual logic* principles. On the contrary, when *managerial marketing* practices are implemented, their underlying decision process follows *causal logic* and principles.

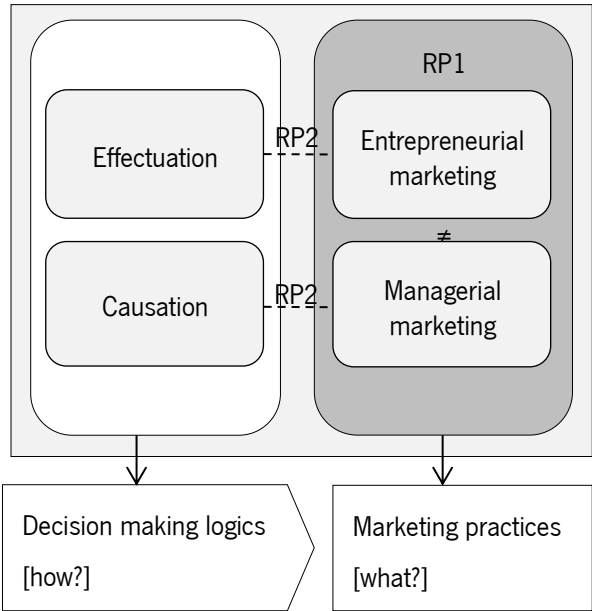


Figure 5.2. Research propositions 1 and 2 in the conceptual model

The effectuation theory suggests that expert entrepreneurs follow an effectual approach when making marketing decisions (Read et al., 2009a). We expected, however, to also find decision making situations using causal logic associated to managerial marketing practices. One of the aims of the study is to understand why different decision making processes and practices are applied, i.e., the conditions that constrain them.

5.3. Decision logics and the cognitive conditions to decide

In this section of the study, we focus on the interplay between the conditions that the entrepreneur has to decide and the decision making logics that he/she uses. Literature on effectuation shows that, under high levels of uncertainty, it is more likely that entrepreneurs use effectual decision making processes (Read et al., 2009a; Sarasvathy, 2001, 2003). Given that experienced entrepreneurs handle uncertainty more effectively, they tend to privilege an effectual logic of decision making, when compared to novice managers, who rely more often on a causal reasoning (Dew et al., 2011; Read et al., 2009a; Dew et al., 2009a). Therefore, we propose that:

RP3. The *decision making logics* that entrepreneurs use when making marketing decisions are influenced by the *level of uncertainty* they face. Under *higher levels of uncertainty*, entrepreneurs tend to apply *effectual principles*, whereas under *lower levels of uncertainty*, *causal principles* may be applied. Furthermore, decision making logics may change when the level of uncertainty lowers.

Literature on entrepreneurial marketing suggests, in fact, that marketing activities are shaped by the conditions and resources that entrepreneurial firms have. Such constraints exist at the firm level that encompasses the availability of resources and the ability to develop innovative and creative activities (Morris, Schindehutte & LaForge, 2002; Carson & Gilmore, 2000b); at the environmental level, referring to the external context, specifically the environmental adversity (Zahra & Newbaum, 1998) and at the entrepreneur level, which includes his/her visionary management style (Hultman, 1999), his/her marketing competences (Carson & Gilmore, 2000a) and personal networks (Gilmore, Carson & Grant, 2001; Stokes, 2000a). From the effectuation theory and cognitive perspectives, however, the individual level is what really matters, since how entrepreneurs get, process and use information affects how they are going to cope with the external factors using their given means.

Therefore, in our study, the level of uncertainty that entrepreneurs have to face is defined by the availability of information to make a particular decision and the level of marketing competency that should allow acquiring and processing the information to make effective marketing decisions.

Marketing competency for entrepreneurs to make marketing decisions is understood in this study, following Carson and Gilmore's (2000b) conceptualization, which includes: knowledge, that is, common sense understanding about important aspects of business; previous experience in marketing related activities; communication, which is about knowing what communications work best with which audience; and judgement, i.e., the ability to combine the previous features and judge which decision is the best in specific circumstances. Marketing competence may be acquired, according to the authors, by formal learning or learning by experience.

It is possible that experienced entrepreneurs have cognitive mechanisms, such as analogical reasoning (Haynie et al., 2010; Read et al., 2009a) and heuristics (Stinchfield, Nelson & Wood, 2013; Holcomb et al., 2009; Alvarez & Buzenitz, 2001), allowing them to successfully make marketing decisions under uncertainty circumstances. Conversely, trained marketers that are more prone to follow the textbook prescriptions (Dew et al., 2011; Read et al., 2009a) may have the needed knowledge to discover and interpret marketing information, which can be of great value when available. Therefore, we suggest the following research propositions, which are identified in Figure 5.3.

RP4. To make a particular marketing decision under a high *level of uncertainty*, which is determined by *low information availability* and *low marketing competency*, entrepreneurs use reasoning strategies that are not consistent with the *managerial marketing process and practices*.

Even when information is available, the entrepreneur may lack the ability to process it correctly and in a useful manner. Considering the benefits of both entrepreneurial orientation and marketing (e.g. Boso, Cadogan & Story, 2013; Baker & Sinkula, 2009; Atuahene-Gima and Ko, 2001), we expect to find that both entrepreneurial and marketing competencies might be necessary to process information in a way that leads to marketing decisions favouring firm's development. Thus, we further suggest that:

RP4a. The level of *marketing competency* influences the ability to obtain and process information in order to reduce uncertainty.

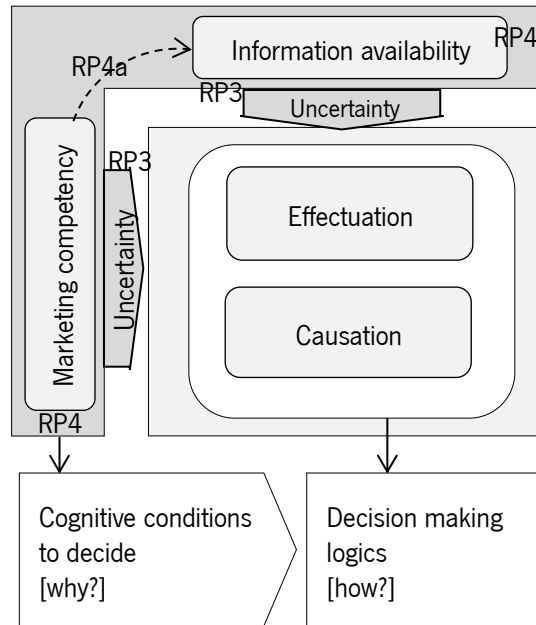


Figure 5.3. Research propositions 3, 4 and 4a in the conceptual model

We propose, therefore, that the level of uncertainty, which is higher when the entrepreneur has little marketing information available and/or he/she lacks the competency to obtain and process it, influences the way he/she reasons. The influence of uncertainty on the decision making logic also affects the marketing practices that result from the entrepreneur’s decisions. We also intend to understand the effects of marketing practices under different circumstances, by observing their impacts on business development.

5.4. Marketing effects on business development

Literature indicates that in the early stages of a business and when entering new markets an effectual and pro-active marketing perspective might be more effective (Lumpkin & Dess, 2001; Sarasvathy, 2001). Little is known, however, about what constitutes effectiveness regarding entrepreneurial marketing decisions and whether or not effectuation and entrepreneurial marketing result in different impacts when different circumstances contextualize the decision making process. The effectuation theory suggests that, in face of unclear initial goals and low technological advantage, effectual reasoning may be more appropriate (Sarasvathy, 2001). Conversely, «in cases in which a particular effect has been preselected by the decision maker, causation processes can be applied to

choose the best, the fastest, the most efficient, or the most economical method to achieve the chosen effect» (Sarasvathy, 2001, p. 250). The author also assumes that «When pre-existing knowledge, such as expertise in a particular new technology, forms the source of competitive advantage, causation models might be preferable» (Sarasvathy, 2001, p. 252).

Carson and Gilmore (2000b) propose that entrepreneurial marketing can be defined as marketing-in-context, meaning that different approaches may be used, depending on the type of challenges these companies face and on the characteristics of the entrepreneur/manager/owner and his/her competencies. This idea is also in accordance with the suggestion, presented earlier, regarding effectuation and causation, in which the two are just theoretical extremes, that work together in practice (Read et al., 2009a) and both can positively impact the firm's development if they set the basis for adequate marketing decisions, only in different ways. In line with the previous propositions, it is expected that when circumstances are different, the logics and the practices can also change to adapt to them and the resulting effects for business development.

Not only the logics and practices may change over time, but also they can alternate in the same moment in time under different circumstances. As new ventures might have to deal simultaneously with uncertain and more stable scenarios for different decisions, it is expected to find a mix of both effectuation and causation decision making logics and entrepreneurial and managerial marketing practices. This may result from the fact that new ventures usually experience long innovation development cycles, and need to address more stable and information rich markets with less innovative products in order to balance the cash flow and fund the development activity. This means that two different marketing circumstances may co-exist, leading to the adoption of different marketing styles at the same time. Therefore, we propose, as represented in Figure 5.4., that:

RP5. The *cognitive conditions* of the entrepreneurs influence the type of *effects that their marketing practices* have on business development.

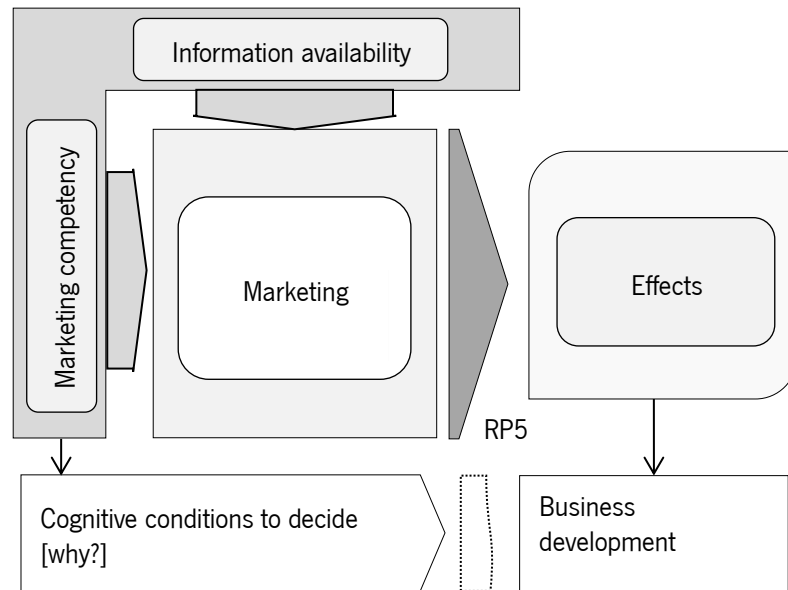


Figure 5.4. Research proposition 5 in the conceptual model

5.5. Section summary

The cognitive theory, particularly the effectuation theory of entrepreneurial decision making, is used to explore the entrepreneurial marketing concept in our study. We propose that the distinctive marketing practices implemented by entrepreneurs are influenced by their decision making logics and that both their decision logics and marketing practices are constrained by the cognitive conditions of the entrepreneur. Such conditions translate a certain degree of uncertainty, which is higher when lower information to make a particular decision is available and when the processing capacity is limited.

In order to better understand the influence of decision logics and the level of uncertainty on marketing practices, the study also explores the effects of different marketing practices and decision logics under different cognitive conditions on business development. Our research propositions are empirically explored following the methodological procedures described in the next part of the thesis.



METHODOLOGY

In this part of the thesis, we describe the research strategies and methodological options of the study, aligned with the ontological and epistemological positions and our research questions and objectives. Thus, we start by clarifying the aims of the study, which guide the remaining chapter and, afterwards, the methods used to collect and analyse the data are explained in detail. An overview of the sequence and content of this part is depicted in Figure III.1.

The empirical work involved a two-step process of data collection as well as a two-step process of data analysis. Regarding the data collection, we started by doing an exploratory study, consisting of in-depth pilot interviews with entrepreneurs. The main objectives were gaining knowledge about their day-to-day activities as managers and marketing decision makers, as well as assessing the suitability of the Critical Incident Technique (CIT) used in the subsequent phase. Nine entrepreneurs participated in

this stage and another 42 took part of the study using CIT. Entrepreneurs were selected using several criteria regarding their ventures, which will be explained in detail.

As for the data analysis, the study relies primarily on extensive content analysis of the interviews. Complementary quantitative analysis was also performed, mainly to explore the relationships between the elements of the model that support the research.

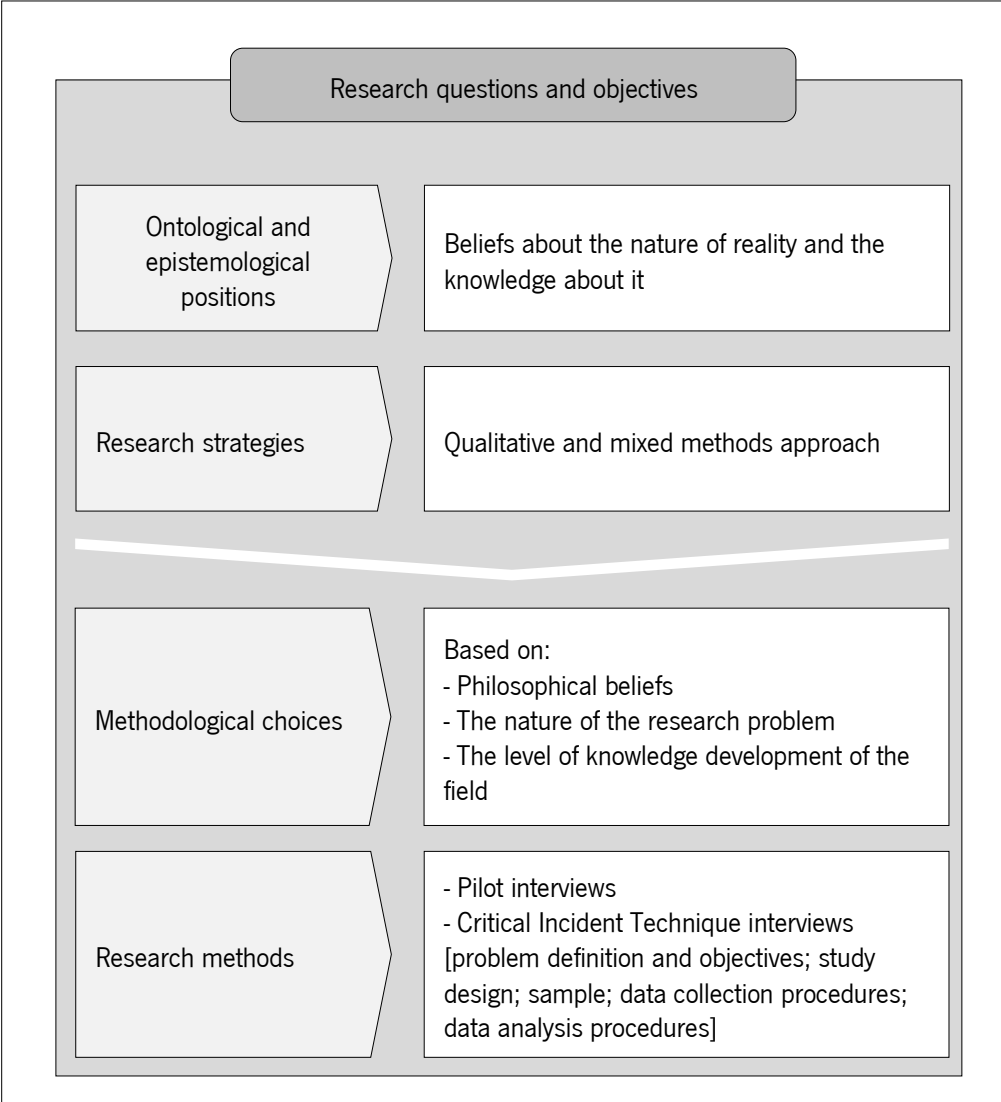


Figure III.1. Methodology

6. Research purpose and methodological assumptions

As previously indicated, our study intends to contribute to deepen the knowledge on the marketing/entrepreneurship interface, where concepts and theories are still developing (Hills & Hultman, 2011). Our research focuses mainly on understanding the entrepreneurial marketing decision process and its different outputs. The methodological options of the study are guided by our intention to understand how entrepreneurs make marketing decisions, their constraints and consequences, and also by philosophical assumptions, which are discussed in the next topics.

6.1. Research questions and objectives

There is considerable evidence that marketing has a positive impact on firm's performance (e.g. Morgan, 2012; Morgan, Vorhies & Mason, 2009; Krasnikov & Jayachandran, 2008; Brooksbank, 1991). Research on the marketing/entrepreneurship interface has shown that entrepreneurial firms perform different marketing activities and researchers advocate that marketing theory, processes and tools should be reframed so as to meet the special needs of these companies (Hills, Hultman & Miles, 2008; Carson & Gilmore, 2000a). However, the process of entrepreneurial marketing is not fully understood, neither are the conditions under which these customized marketing practices are more suitable to entrepreneurial firms than traditional marketing. The cognitive view of entrepreneurship (Haynie et al., 2010; Mitchell et al., 2002; Baron, 2004) offers a research perspective from which it is possible to shed light on this problem by focusing on the entrepreneurial decision making process. Therefore, the study is geared by the aim of deepening the understanding about entrepreneurial marketing, by exploring the concept from the decision making process perspective, while attempting to identify the circumstances under which entrepreneurial marketing practices are more suitable. The study aims at finding answers to the following research questions:

a) **How does the decision making process of the entrepreneurs and their cognitive conditions influence entrepreneurial marketing practices?** and b) **What effects do entrepreneurial marketing practices have on business development?**

Particularly, we question:

- How do the decision logics affect the implementation of marketing?
- How do cognitive conditions constraint the decision making process?
- Under what circumstances do entrepreneurial and managerial marketing have different effects on business development?

Answering these questions leads to the following objectives:

1. To contribute to the development of the entrepreneurial marketing concept, by focusing on the marketing decision making process of the entrepreneurs and corresponding influences;
2. To describe what marketing practices result from the particular entrepreneurial decision making process and how they differ from those prescribed by marketing textbooks (*what*);
3. To understand how the decision making process is established and how it compares to the managerial marketing decision making process (*how*);
4. To explore the cognitive mechanisms that are involved in the entrepreneurial marketing decision making process (*why*);
5. To explore the effects that entrepreneurial marketing decisions versus managerial marketing decisions have on business development;
6. To identify the circumstances and conditions under which the entrepreneurial marketing approach versus the managerial marketing approach is more suitable.

The needed fieldwork to obtain data to attain our goals followed a methodological procedure that is described in detail in a section ahead. Before that, the basic philosophical assumptions of this research are set.

6.2. Ontology, epistemology and methodology

Methodological choices are not made and presented in abstract without discussing the underlying assumptions about the nature of knowledge and how it can be obtained, as well as the nature of the phenomena being investigated (Morgan & Smircich, 1980). Two fundamental groups of philosophical assumptions steer scientific research. The first is ontology, which regards the beliefs about the form and nature of reality and what can be known about it. The second is epistemology,

which concerns the views about the relationship between that reality and the researcher (Guba & Lincoln, 1994), that is, how it is possible to know about the world (Snape & Spencer, 2003).

Although not representing the whole range of positions towards research, there are two traditionally conflicting ontological positions, assuming polar perspectives about the central issue of whether social entities are objective and external to social actors or whether they are constructions resulting from their perceptions, actions and interactions (Bryman, 2012). On one side, objectivism and realism are based on the belief that reality is 'real' and can be discovered, even if it is only imperfectly and probabilistically apprehensible (Sobh & Perry, 2006). On the opposite side, subjectivism and constructionism believe that reality is dependent upon the social actors (Wahyuni, 2012). Constructivism is based on a relativist ontology, assuming that, in the words of Guba and Lincoln (1994),

[...] realities are apprehendable in the form of multiple, intangible mental constructions, socially and experientially based, local and specific in nature (although elements are often shared among many individuals and even across cultures), and dependent for their form and content on the individual persons or groups holding the constructions (p. 110-1).

From the epistemological perspective, positivism and interpretivism are two main paradigms that hold opposing perspectives about the nature of knowledge. Positivism is aligned with the belief that reality can be captured by the researcher, through scientific models from natural sciences and that only phenomena confirmed by the senses are considered knowledge (Bryman, 2012). Interpretivism, on the other hand, is based on the view that reality is mentally created as a projection of individual consciousness (Goulding, 2002; Morgan & Smircich, 1980). This perspective holds that human behaviour depends on the way people interpret the conditions in which they are immersed and on how they make sense of their social world (Blaikie, 1991). Thus, given that the social world is not ruled by law-like regularities, the methods of natural sciences are not considered appropriate to social enquiry; instead, the researcher has to understand the world through the participant's perspectives, explaining meaning rather than causes (Snape & Spencer, 2003). Table 6.1. summarizes this philosophical divide.

Table 6.1. Main confronting positions towards research

	Objectivism Reality is real and apprehensible Social phenomena are external facts, independent and separated from social actors	Constructionism/constructivism: Social phenomena and their meanings are produced through social interaction and are in constant state of revision
Ontological position What is the nature of the social entities and what we can know about it (what is reality)	<p>Realism: a reality exists independently of the observer.</p> <p>Materialism (variant of realism): Only the physical world is considered real. Beliefs arise from the material world.</p>	<p>Idealism: no external reality exists independent of the human understanding. Reality can be apprehended through socially constructed meanings.</p> <p>Relativism (variant of idealism): reality is composed of socially constructed meanings and there are no socially shared realities, only alternative social constructions.</p>
	<p>Critical Realism (influenced by idealism): it is possible to know the external world, but there are underlying structures to the social world that are not independent of the human mind, they are influenced by perception.</p> <p>Subtle idealism: reality is only knowable through socially constructed meanings, but meanings are collectively shared and there is a collective or objective mind.</p>	
Epistemological orientation How it is possible to know about the world and what is regarded as acceptable knowledge (nature of knowledge)	<p>Positivism (naïve realism) The world is independent, unaffected by the researcher.</p> <p>Only phenomena confirmed by the senses can be considered knowledge.</p> <p>Scientific models can be applied to the social world, allowing hypothesis testing, causal explanations and modelling.</p> <p>Emphasis on explanation.</p>	<p>Interpretivism The researcher and the world impact on each other.</p> <p>The subject matter of social sciences (people and institutions) is different from natural sciences, so methods from natural sciences are not appropriate.</p> <p>Requires the social scientist to grasp the subjective meaning of the human action.</p> <p>Emphasis on understanding.</p>

Source: Based on Bryman (2012) and Snape and Spencer (2003).

Although there are some more moderate positions, such as critical realism and subtle idealism, an open antagonism between the philosophical perspectives has persisted, which has been called the paradigm wars (Bryman, 2008). Some authors, however, such as Newman and Benz (1998), believe that positivist and non-positivist philosophies do not represent a dichotomy, but two interactive places on a methodological and epistemological continuum. So, this idea of mutual exclusivity has also many challengers, particularly when paradigms are put into practice (Datta, 1994; Willmott, 1993).

From the philosophical pragmatism's point of view, some researchers believe that elements of the two paradigmatic extremes can be combined through the use of mixed methods (Azorin & Cameron, 2010; Tashakkori & Teddlie, 2003). Pragmatism and mixed methods advocate that differences in epistemological beliefs should not dictate the methods, either qualitative or quantitative, to be used, and prevent their association in the same research (Goering & Streiner, 2013; Johnson & Onwuegbuzie, 2004). Instead, «research approaches should be mixed in ways that offer the best opportunities for answering important research questions» (Johnson & Onwuegbuzie, 2004, p. 16). The pragmatic approach focuses attention on methodological issues rather than on metaphysical concerns, for choosing the appropriate method for a specific research question, with the primary purpose of producing socially important and useful knowledge (Feilzer, 2010; Morgan, 2007; Snape & Spencer, 2003). As Onwuegbuzie and Leech (2005) note, «Regardless of orientation, all research in the social sciences represents an attempt to understand human beings and the world around them» (p. 381). Wahyuni (2012) summarizes the different perspectives as presented in Table 6.2.

Table 6.2. Fundamental beliefs of research paradigms in social sciences

Fundamental Beliefs	Research paradigms			
	Positivism (Naïve realism)	Postpositivism (Critical Realism)	Interpretivism (Constructivism)	Pragmatism
Ontology: the position on the nature of reality	External, objective and independent of social actors.	Objective. Exists independently of human thoughts and beliefs or knowledge of their existence, but is interpreted through social conditioning (critical realist).	Socially constructed, subjective, may change, multiple.	External, multiple, view chosen to best achieve an answer to the research question.
Epistemology: the view on what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalisations, reducing phenomena to simple elements.	Only observable phenomena can provide credible data, facts. Focus on explaining within a context or contexts.	Subjective meanings and social phenomena. Focus upon the details of situation, the reality behind these details, subjective meanings and motivating actions.	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data.
Axiology: the role of values in research and the researcher's stance	Value-free and etic. Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance.	Value-laden and etic research is value laden; the researcher is biased by world views, cultural experiences and upbringing.	Value-bond and emic. Research is value bond, the researcher is part of what is being researched, cannot be separated and so will be subjective.	Value-bond and etic-emic values play a large role in interpreting the results, the researcher adopting both objective and subjective points of view.
Research Methodology: the model behind the research process	Quantitative	Quantitative or qualitative	Qualitative	Quantitative and Qualitative (mixed or multi-method design).

Source: Wahyuni (2012, p. 70).

In our study, we implement a mixed methods design regarding data analysis. However, data collection is made through the qualitative method of interview, assuming a subjectivist approach to research. The reasons for our methodological choices are explained ahead. In the next topic we focus briefly on qualitative and mixed methods, acknowledging that the object of investigation is always somewhat influenced by the researcher when he/she tries to understand it.

6.3. Qualitative methods and mixed methods approach

The fundamental question about whether or not reality exists independently of the observer and, if so, to what extent it can be apprehended without alteration is not exclusive of the human sciences and the behavioural field. In fact, it can be better exemplified by the debate originated by the famous Young's double-slit experiment, from the quantum mechanics field, which demonstrates in practice the researcher's inability to predict experimental results. According to the experiment, subatomic particles can act as both waves and particles changing properties when observed (Hazarika, Rajkhowa, Dutta, Konwar, Siam & Baruah, 2012). This measurement problem of quantum theory highlights the inseparability between the object being observed and the observer, since what is out there when we are not looking is just a wave of possibilities that collapse to form a particle with a definite position as soon as we focus our attention on it (Ojong & Archibong, 2013). This expresses the Heisenberg's uncertainty principle. Heisenberg, one of the most prominent precursors of quantum theory, advocated that when under observation, a subject reacts to being observed and changes its real nature, making impossible to objectively measure anything. As the observation changes reality, Heisenberg (1958) posits that we do not deal with the reality itself but with our knowledge of it. Therefore, the observer is not objective; he is, rather, part of the interplay between man and nature (Heisenberg, 1958).

The quantum interference phenomenon can be used as analogy to the disturbance of observers in other contexts, such as in nature (Hazarika et al., 2012), but also in social phenomena, in which our object of study is included. By studying decision making processes and management practices through the accounts provided by interviewees, the researcher is inexorably interfering and changing 'reality'. As Legard, Keegan and Ward (2003) put it,

Interview is generative in the sense that new knowledge or thoughts are likely, at some stage, to be created [...] it is likely that the participant will at some point direct themselves, or to be directed by the researcher, down avenues of thought that they have not explored before (p. 142).

Qualitative methods, which we predominantly use in this study, have in their core an interpretative, naturalistic approach to the world, in the sense that they make the world visible and transform it altogether, by turning it into a set of representations, including observation notes, interviews and other field records (Denzin & Lincoln, 2005). The fundamental assumption underlying qualitative research is that the world or reality, instead of being fixed, single, agreed upon and measurable, as it is assumed in positivist research, is composed of multiple constructions and interpretations and meaning is socially constructed by individuals in interaction with their world (Merriam, 2002). The intent of the researcher is to make sense of the phenomena through the meanings that individuals ascribe to them (Denzin & Lincoln, 2005). Therefore, the main interest is to understand those interpretations in a context, in order to learn how people experience and interact with the social world around them and how they make meaning from it, which constitutes an interpretative approach (Merriam, 2002).

Qualitative research is useful when the researcher is trying to uncover the nature of people's experiences and when it is intended to understand what lies behind a not yet well-understood phenomenon and intricate details of a given phenomenon are difficult to obtain with quantitative methods (Strauss & Corbin, 1990). As Patton (2002) notes, this understanding is an end in itself, since there is not an attempt to necessarily predict future happenings, rather to understand a particular setting and to grasp the meaning for the individual of being in that unique setting. The aim, therefore, of studying information-rich cases is not generating empirical generalizations but obtaining insights and in-depth understanding (Patton, 2002).

Although some positivists still perceive qualitative research as unscientific and filled with conjecture (Goulding, 2002), the debate that opposes quantitative and qualitative seems to be slowing down. Particularly within the field of marketing, an increasing number of qualitative papers start appearing in the premier journals, denoting that qualitative research is less viewed as speculative or soft (Goulding, 2005). In the field of entrepreneurship, there is also a greater incentive to develop qualitative studies. In 2002, a special issue of one of the leading journals of the area, *The Journal of Business Venturing*, was dedicated to the purpose of celebrating the application of qualitative methodologies in the study of the complexities of the entrepreneurial process, which Gartner & Birley (2002), who introduce the issue, felt were under-represented in quality journals. These researchers highlight the fact

that the study of entrepreneurship involves understanding behaviours of those that actually are 'outliers' in the community and, so, many important questions in the field can only be asked through a qualitative approach.

The use of a more qualitative approach presents challenges, however, regarding data collection and analysis. It may lead to an open research design that takes shape as new information is found and favours data collecting techniques characterized by a close proximity to the object of study, such as observation (Hill & Wright, 2001). Collecting and analysing qualitative data is labour intensive, as the fieldwork is demanding and may generate much stress even for top-quality researchers (Miles, 1979).

Qualitative methods have advantages and disadvantages compared to quantitative methods. However, the combination of the two may allow benefiting from the strengths of each other (Johnson & Onwuegbuzie, 2004). The central premise of mixed methods is that the use of quantitative and qualitative approaches in combination allows a better understanding of the complexity of the phenomena being studied, than each approach separately (Azorín & Cameron, 2010).

Based on such argument, the use of mixed methods is becoming increasingly popular in recent years (Bryman, 2006), especially since the seminal work of Tashakkori and Teddlie (2003). In their handbook, the authors call the field of mixed methods the «'third methodological movement'» (p. ix), a separate methodological orientation evolving as a pragmatic way to benefit from the strengths of both the qualitative and the quantitative approaches. Used in the same study, qualitative and quantitative methods can extend and complement findings (Goering & Streiner, 2013). In an extensive review of literature presenting results from mix methods research, Bryman (2006) identified, in fact, that the main motivations to use this approach are: a) triangulation, i.e. seeking convergence; b) complementarity, to allow elaboration and clarification; c) development, seeking to inform or develop one method with results of the other; d) initiation, which refers to seeking contradictions and new perspectives; and e) expansion, to enlarge the range of inquiry.

Although mixed methods only recently have been gaining prominence, the combination of qualitative and quantitative methodologies has long been advocated. Jick (1979) refers that there is a tradition within social sciences claiming that qualitative and quantitative methods, rather than being seen as rival camps, should be approached as complementary, given the strengths and weaknesses that each method alone holds. Thus, the idea of method triangulation is not new, having been recommended long ago by authors such as Webb, Campbell, Schwartz and Sechrest (1966), who

advocate the use of different independent measurement processes to reduce the uncertainty of interpretation, and Denzin (1978), who holds that the empirical world should be approached from as many methodological perspectives as possible in order to contribute for creating a sound theory. Particularly, in the field of marketing, where quantitative methods have been prevalent, qualitative approaches and triangulation have long been considered important for theory development (Deshpande, 1983).

The integration of quantitative and qualitative data has proved to be a fruitful strategy (Miles, 1979), and Tashakkori and Teddlie (2003) believe that it will be the dominant methodological approach in the social and behavioural sciences during the current century. Maxwell (2010) finds value in mixed method research because it allows «creating a dialogue between different ways of seeing, interpreting, and knowing, not simply in combining different methods and types of data» (p. 478).

The use of triangulation of methods in social research is not without criticism, though. Blaikie (1991), for instance, discusses the problems of mixing qualitative and quantitative methods from the epistemological perspective. The author believes that, while it is possible to combine methods under the same ontological and epistemological assumptions, problems arise when methods based on different assumptions are mixed. There are other opinions, however, that counterpoint his perspective. Bryman (1984), for instance, suggests that the reconciliation between quantitative and qualitative approaches is more difficult when the discussion is taken to the epistemological realm, but when put at the technical level, the distinction between quantitative and qualitative is rather artificial. At this level, choice of methods is tied more to the nature of the research object and goals than to the philosophical beliefs and, in practice, one research mode often contains elements of the other. In fact, much qualitative research makes quantitative claims using verbal forms such as *many*, *frequently*, *often* or *typically*, for instance, so, simple counts or quasi-statistics can make such claims more precise (Becker, 2009). This is consistent with the pragmatic approach mentioned previously, which holds that in «real-world practice, methods can be separated from the epistemology out of which they have emerged» (Patton, 2002, p. 136). It is important to highlight, however, that combining methods should not be confused with mixing paradigms. This combination must be done within a sensible understanding of the paradigms (Morgan, 1998).

6.4. Methodological choices

As Johnson and Onwuegbuzie (2004) note, not many researchers today are pure positivists, acknowledging that research involves subjective decisions and influences. Neither many are pure relativists, since that would be admitting that their opinion about research quality is just as good as anyone else's, which hinders the ability to find research quality standards. As mentioned earlier, we assume a subjectivist perspective, focusing primarily on a qualitative research strategy. However, at the technical level, we follow a pragmatic approach, mixing qualitative and quantitative methods of data analysis in order to supplement the qualitative results with quantitative exploration.

The use of a predominantly qualitative methodology in our study is anchored in several reasons. Firstly, it is aligned with the philosophical beliefs, exposed above. Secondly, it suits the nature of the problem being studied. As Gilmore and Coviello (1999) note, quantitative methods alone do not reach the level of depth needed to generate knowledge about the influences on the marketing decision making processes within the entrepreneurial context. The authors believe that qualitative methodologies allow a better understanding of both the environment of the company and the personal and social characteristics of the individuals involved in the studied phenomenon.

Much entrepreneurship research has been undertaken within a positivist or functionalist paradigm (Wigren, 2007), but its adequacy to entrepreneurial research is not consensual. Hill and McGowan (1999) consider that the use of qualitative methods, within an ethnographic tradition, has the advantage of allowing the emergence of a holistic dimension of the phenomena. The authors advocate that this characteristic is particularly important in the study of small entrepreneurial companies, since it gives a more comprehensive view of how marketing and management decisions are made in a specific context. Entrepreneurship is in constant state of flux and is shaped by the very difficulty in predicting entrepreneurs' behaviours (Neergaard & Ulhøi, 2007). A predominantly qualitative approach allows us seeing the world from the key decision makers' eyes, which are the entrepreneurs, enabling a much needed deeper understanding about the entrepreneurial unique circumstances for implementing marketing (Hill & Wright, 2001).

Finally, the adopted research strategy is appropriate to the level of theoretical development in the field. When there is a lack of theory or existing theory does not explain a phenomenon adequately, qualitative research is often used (Merriam, 2002). Daft (1985) argues that, while quantitative methods work well for topics where there is sufficient understanding and previous research and the

objective of new research is to test explicit hypotheses, qualitative methods suit topics for which existing theory is sparse and the systematic knowledge is insufficient. The purpose of this type of research is to explore and get a well-defined set of constructs and a model that can serve as a guide for future investigations. Mintzberg (1979) also contends that all sorts of relationships can be found in quantitative data, but it is only through the use of qualitative data that we are able to explain them for the purpose of understanding why these relationships exist.

Although entrepreneurial marketing research is now in an interesting stage of development, it is not yet completely mature, and there are recommendations towards the development of a better understanding of the concept (Hills & Hultman, 2011; Hills, Hultman & Miles, 2008). Other studies that tried to contribute to the exploration of the entrepreneurial marketing construct used qualitative and exploratory approaches due to the lack of a well-developed theoretical background (e.g. Kolabi et al., 2011; Martin, 2009). As Hills and Hultman (2011) note, within the field of entrepreneurial marketing, different methodological approaches, such as qualitative case studies, interpretative studies and grounded-theory research, are openly accepted and applied by researchers in this area.

Additionally, concerning the main theory basing this research, measures of the effectuation process also need to be refined and further explored (Chandler et al., 2011). In fact, although some work has already been done on this domain, empirical models and tests on effectuation are still scarce. Perry, Chandler and Markova (2012) consider that the next stage of development of the theory involves establishing conceptual relations with other theories. As the researchers posit, only when

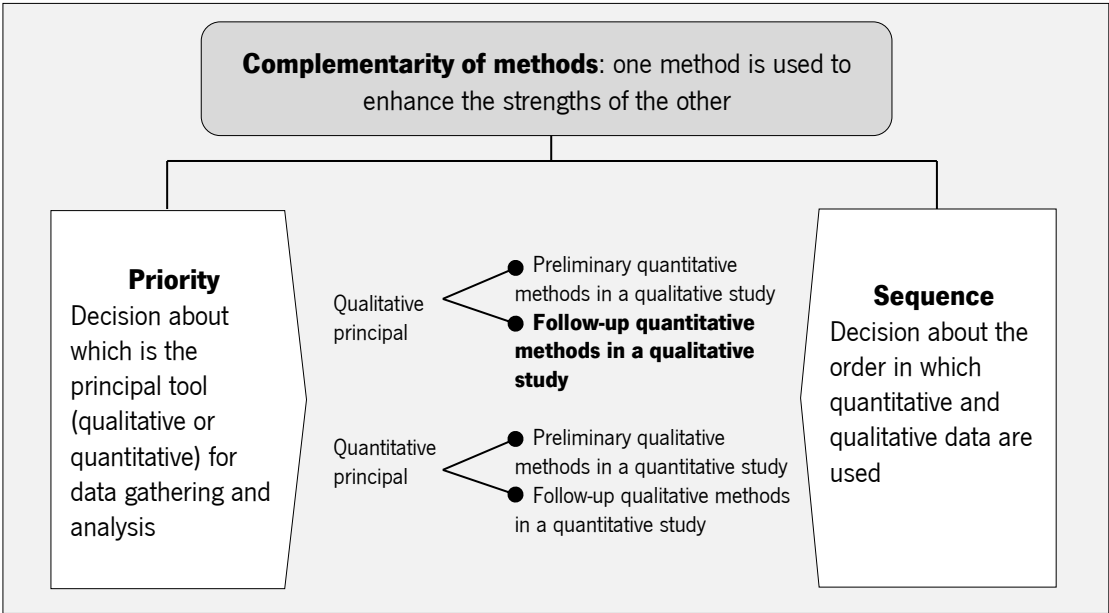
[...] conceptual relationships have been established, researchers could then develop propositions about these relationships and test their propositions. A wave of research establishing relationships between effectuation and established entrepreneurship and management theories will need to first be conducted before studies can be developed with focused questions and/or hypotheses (Perry, Chandler & Markova, 2012, p. 12).

A qualitative approach to data collection and analysis is, then, appropriate in order to make sense of the entrepreneurial marketing concept, approached from the effectuation theory's point of view and to understand the contextual and situational aspects of the marketing decision making process. Entrepreneurial decisions are often intuitive and heuristic (Busenitz & Barney, 1997), sometimes unconscious, and entrepreneurs may find it difficult to recount their thinking processes in a structured

manner. Qualitative methodology, using in-depth interviews, can provide a deeper understanding of subjective elements of the complex decision making process.

Although we focus on qualitative methods of data collection and analysis, we use a complementary quantitative analysis aiming at exploring relationships and adding to the main intention of understanding the marketing decision making process of the entrepreneurs, their conditions and outputs. From a pragmatic and technical perspective, both qualitative and quantitative methods of data analysis are suitable to our research question and objectives, since we intend not only to understand the entrepreneurial marketing process, but also to explore its relationship with marketing decision logics, conditions and impacts on business development.

Following the Priority-Sequence Model of Morgan (1998), schematically expressed in Figure 6.1., we defined the qualitative research as the principal method, which is in a subsequent phase of data analysis, supplemented by the insights of quantitative data analysis, within the principle of complementarity. Our research design corresponds, therefore, to the use of follow-up quantitative methods in a qualitative study, which we consider to have the most appropriate strengths to our research goals.



Source: Based on the Priority-Sequence Model of Morgan (1998).

Figure 6.1. Research designs for combining qualitative and quantitative methods

This mix methods approach has been particularly advocated in the marketing/entrepreneurship interface research. Carson and Coviello (1996) suggest that a combination of methods might be used, contending that «[...] no single method of social science research is wholly appropriate in providing the depth, breadth and subtlety of information necessary for examining the marketing/entrepreneurship interface» (p. 55). The use of qualitative and quantitative data was also prescribed by Perry, Chandler and Markova (2012) to the study of effectuation.

Chell and Pittaway (1998) note that Critical Incident Technique (CIT) data have the peculiarity of being able to be analyzed both qualitatively and quantitatively, even when the approach that guides the data collection is a subjective methodology. The authors argue that, when used quantitatively, CIT data allows assessing the type, nature and frequency of incidents that are relevant to the discussion and also linking them with other variables, which can provide important insights into general relationships. In order to be statistically analyzed, qualitative data types are converted into numerical codes (Münscher & Kühlmann, 2012) and quantifiable schemes can be developed to code complex data sets (Jick, 1979).

We believe, similarly to Maxwell (2010), that «quantitative and qualitative data are both created by means of the particular conceptual “lens” used by the researcher» (p. 478). In fact, as Onwuegbuzie and Teddlie (2003) note, the terms qualitative and quantitative should be de-emphasized and, instead, research in the social and behavioural sciences could be sub-divided into exploratory and confirmatory methods. In such conceptualization, both qualitative and quantitative methods play important roles. The authors maintain that exploratory methods can include the traditional thematic analyses but also descriptive statistics, exploratory factor analysis, and cluster analysis, for instance. Confirmatory methods, on the other hand, include inferential statistics, such as correlation analysis, t-test, Chi-square test, structural equation modelling but also confirmatory thematic analyses, confirmatory case studies, cross-case analysis, to name a few examples.

Finally, it is worthy of note that we acknowledge that results present the ‘reality’ of the sample studied and translate the meanings attributed to the life experiences of our interviewees. Although the study follows systematic procedures in order to be replicable, inferences are not intended to be drawn from the results to other settings. In our study design, our concern is more about what Maxwell (1992) calls «internal generalizability» (p. 293), which refers to the attempt to infer a certain behavioural pattern to the sample studied from the partial accounts presented by interviewees. We expect, however,

that, by understanding the processes under study, we can confirm our model of analysis in order to shed light on the theme and derive suggestions for theory and practice.

6.5. Section summary

The study focuses on the marketing/entrepreneurship interface, aiming at contributing to developing the understanding of the entrepreneurial marketing concept. Particularly, we intend to understand the entrepreneurial marketing decision making process, by exploring how the decision logics and conditions to decide influence entrepreneurs' marketing practices and their effects on business development.

The research assumes a subjectivist stance and is mainly based on qualitative methods. Such an option is based on several reasons, namely the suitability to the complexity of the problem being studied and the stage of the theoretical development. However, at the technical level we follow a pragmatic approach and mix qualitative and quantitative methods of data analysis, since their combination offers the best opportunities for answering our research questions. The main objective of using mixed methods in our research is to supplement qualitative research with quantitative exploration, while generalizations are not intended.

7. Research methods

While methodology relates to the process of designing the research and choosing the methods and their justification, methods are techniques or procedures to collect and analyze data (Hesse-Biber, & Leavy, 2011). The next topics describe the procedures used during the research process. The study design, the sampling process, the data collection instruments and procedures, and the data analysis procedures are explained.

The data collection comprised two phases. The first consisted of nine exploratory pilot in-depth interviews and the second phase included 42 interviews with entrepreneurs using the Critical Incident Technique (CIT). In total, 51 interviews with entrepreneurs were conducted, corresponding to the same number of companies. A brief description and basic demographic information of each participating company is presented in Appendix 1. All the remaining information provided by interviewees is presented in careful observation of the anonymity guarantee. The resulting data was first qualitatively analyzed through content analysis and then simple quantitative analysis was performed, in order to further explore the relationships that we seek to address, as aforementioned.

7.1. Pilot interviews' aims, procedures and participants

The main goal of the preliminary phase of the research was to deepen the understanding and uncover new dimensions of the phenomenon to be studied from the perspective of the entrepreneurs. By getting in touch with the entrepreneurs' descriptions of their daily activities and decision making processes, we were able to refine both the research design and the research instruments before entering a much more resource consuming investigation. Specifically, in this stage we sought to gain insights into several themes, such as: a) how marketing is perceived and how marketing activities are implemented; b) what are the main influences that shape marketing practices; c) what behaviours are involved in the marketing decision making process and; d) what significant decisions marked the life of the company.

Participants were not asked explicitly about their marketing practices, though. We carefully tried to follow the recommendations of Gilmore and Coviello (1999) to «deliberately exclude marketing terminology but focus instead on what the informant does in relation to various aspects of business» (p. 46). In doing so, we managed to obtain a larger spectrum of information, not bounded to the notion that participants may have about marketing. We applied in-depth qualitative interviewing in order to learn the meanings that participants ascribe to their actions and to explore what is normally hidden from the common-sense perceptions about the nature of their activities (Johnson, 2001). These first in-depth interviews fed a stock of knowledge that allowed us attaining several objectives, namely:

- 1) To become familiar with and understand entrepreneurs' routines, language, perceptions and attitudes regarding marketing;
- 2) To explore the nature of entrepreneurial marketing and its changing nature over time;
- 3) To make adjustments to the elements of the theoretical model and explore new ones;
- 4) To verify the empirical relevance of the research propositions;
- 5) To examine the adequacy of the use of CIT, by exploring some impacting decisions;
- 6) To determine the characteristics of sample for the subsequent study using CIT.

At this stage, we purposefully chose heterogeneous cases, in order to capture important themes that are common to different contexts (Patton, 2002). Since the unit of analysis is the entrepreneurial marketing decision, the chosen respondent was the entrepreneur that deals with marketing/commercial activities. In all cases except one, these were the firm's CEOs (Chief Executive Officers). Nine entrepreneurs were selected from our personal contacts, since we have professional connections to the area of entrepreneurship, and all accepted to participate. The firms varied in their age and industry and entrepreneurs varied in terms of marketing competencies and entrepreneurial experience, as these were some of the characteristics that seem to influence the entrepreneurial decision making rationality. The pilot interviews, which had an average length of about one hour, were recorded with the respondent's permission and transcribed. The main characteristics of the participants in this phase of the research are presented in Table 7.1.

This first stage of the empirical research allowed us confirming that new ventures experience specific conditions and that the entrepreneurial decision making process includes several aspects of effectuation, as suggested by literature. The obtained information also helped us understanding the

marketing practices of these companies, once again confirming the expectation that they would differ from the mainstream prescriptions.

Table 7.1. Profile of participants in pilot interviews

Com-pany	Business area	Year of foundation	N° of employees	Background of the CEO
#01	Management consulting	2009	<10	International Relations
#02	Advanced materials and solutions for critical applications	2009	>10	Polymer Science and Engineering
#03	Video processing and analysis	2008	<10	Economics
#04	Geographic solutions for justice support	2010	<10	Geography
#05	Information systems for archives, museums and digital libraries	2008	<10	Systems and informatics Engineering
#06	Computational biology solutions	2010	<10	Informatics Engineering / Bioinformatics
#07	Environmental Engineering	2004	<10	Environmental Engineering
#08	Biotechnology and Regenerative Medicine	2007	<10	Biomedical Engineering
#09	Solutions for professional digital signage projects	2005	<10	Information Systems

The resulting data was extremely useful to develop the data collection instrument for the subsequent phase of the research using CIT. The appropriateness of the technique was also assed at this stage. Additionally, the pilot interviews allowed us understanding and adjusting the marketing terminology to be used in the subsequent interviewing phase and identifying the company CEO as the main responsible for marketing decisions in most cases.

7.2. The Critical Incident Technique

CIT is a qualitative interview procedure that focuses on significant occurrences, from the participant's point of view, in order to explore the way such occurrences were managed, as well as their perceived effects, taking into account cognitive, affective and behavioural aspects (Chell, 2004). That is, through this technique it is possible not only to describe important occurrences but also to understand how the individual felt about and acted upon them, which allows grasping the psychological

prerogatives underlying humans' actions (Chell & Pittaway, 1998). As CIT focuses on real-life human experiences, it is capable of yielding rich contextualized data (Hughes, 2007). The technique is, then, considered to be a sound and well-tried way of collecting and analyzing complex data about triggers and influencing factors regarding some particular phenomenon (Münscher & Kühlmann, 2012).

According to Flanagan (1954), who developed the technique, an incident is

[...] any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act. To be critical, an incident must occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects. (p. 327).

In short, a critical incident can be any event or issue that makes a significant contribution to either a positive or a negative output of an activity or phenomenon (Gremler, 2004). In order to identify the human activities that are supposed to be considered critical by the subjects of interest, other studies using this technique asked respondents to describe relevant situations, in such terms as *memorable incidents* about a particular interaction (Meuter, Ostrom, Roundtree & Bitner, 2000); *positive or negative incidents* related to a certain episode (Strauss & Weinlich, 1997) and *satisfying or dissatisfying experiences* (Meuter et al., 2000).

CIT was first used to the study in occupational settings (Flanagan, 1954), having been developed within a positivist approach to the social sciences. However, a variant of CIT evolved as a tool to investigate organizational phenomena from within an interpretative or phenomenological paradigm, having emerged within social constructionism in early 1990s (Chell, 2004). Although it permits a degree of replication, in terms of allowing to identify and transfer patterns (Chell & Pittaway, 1998), researchers using CIT are now focusing more on individual perspectives and significance, rather than on concerns about objectivity and generalization (Hughes, 2007).

This technique has been widely applied in service marketing and management studies (See Gremler, 2004, for a review). It has also already been successfully used in entrepreneurship research to investigate topics such as: the evolution and development of new businesses (Kaulio, 2003; Chell & Pittaway, 1998); entrepreneurial networks and relationships (Scarborough, Swan, Amaeshi & Briggs, 2013; Münscher & Kühlmann, 2012; Kaulio & Uppvall, 2009; Chell & Baines, 2000); entrepreneurial learning (Taylor & Thorpe, 2004; Cope, 2003; Cope & Watts, 2000; Deakins & Freel, 1998); internationalization (Scharf, Bell, Loane & Fletcher, 2004); education for entrepreneurship (Chell &

Allman, 2003; Johannisson, Landstrom & Rosenberg, 1998) and also entrepreneurial marketing. For instance, Stokes (2000a) applied CIT to «gain greater understanding of what prompted or triggered specific marketing activities by entrepreneurs» (p. 49).

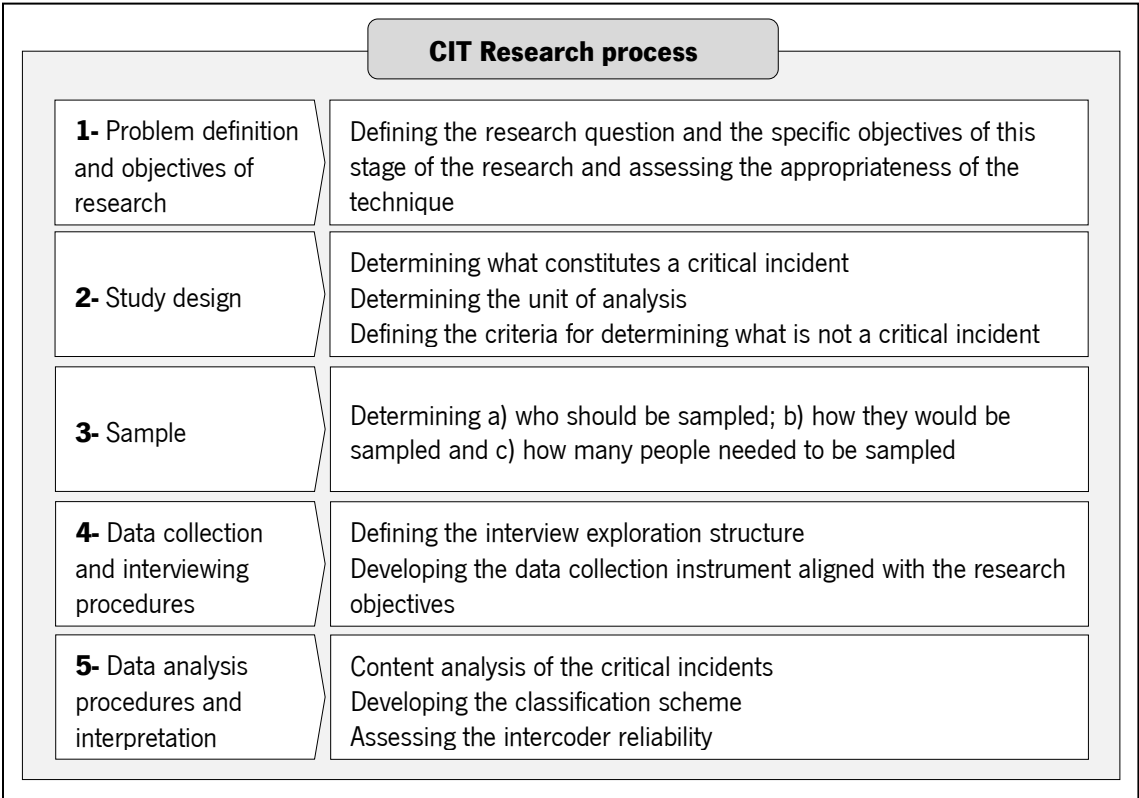
Since critical events force entrepreneurs to mobilize their competences and cognitive, affective and practical skills, Johannisson, Landstrom and Rosenberg (1998) argue that the use of critical incidents in the study of entrepreneurship can make a helpful contribution for understanding how entrepreneurs decide and act. Recent applications of CIT are, in fact, pointing towards the exploration of the cognitive factors involved in decision making processes (Münscher & Kühlmann, 2012). Additionally, CIT allows looking for communalities in themes and repetition of patterns to establish relationships between context and outcomes (Chell, 2004).

CIT offers several advantages but it also presents some challenges. One of the most relevant disadvantages of CIT is the fact that its accounts are retrospective, which may involve recall errors due to memory decay (Sudman & Bradburn, 1973). Chell (2004) notes, however, that as only critical subjects are addressed and the memory about those is usually good, this problem can be mitigated. In fact, Beckett, Da Vanzo, Sastry, Panis and Peterson (2001) note that experimental and empirical literature consistently shows that events are better recalled when they are highly salient to the respondent. On the other hand, due to the same reason, it is possible to expect selective recall of dramatic incidents, for instance (Flanagan, 1954).

Another challenge of CIT is the fact that the fieldwork, coding and analysis of data are generally expensive and time consuming (Chell & Pittaway, 1998). For that reason, the amount of information that is possible to collect and analyze by a single researcher is limited. As a reference, in the research of Bitner, Booms and Mohr (1994), 37 trained interviewers collected a total of 781 critical incidents, which represents roughly 20 incidents per interviewer. A higher number of incidents is possible to obtain when a self-administered questionnaire is used as data collection instrument and final consumers are targeted. Using an online questionnaire, Meuter et al. (2000) were able to acquire 823 critical incidents for analysis. In entrepreneurship CIT studies, targeting companies, smaller amounts of information have been used. For instance, Chell and Pittaway (1998) obtained 126 critical incidents interviewing 42 business owners and Kaulio (2003) retrieved 65 critical incidents from eight companies interviewed.

7.3. Application of the Critical Incident Technique research process

To design the CIT research process, we mainly followed the procedural recommendations of Gremler (2004), developed on the basis of an extensive review of 141 CIT studies, from which the author defined a set of best practices. We also examined the publications considered ‘model’ CIT studies by Gremler (2004) in order to have a closer reference for our research framework. Thus, several steps were followed when planning the study: firstly, the research problem was defined and the methodological approach was selected on the basis of its aim and objectives. Secondly, the CIT study was designed, including the definition of what constitutes a critical incident and the unit of analysis. Thirdly, criteria to select the cases to be studied and the sampling procedure were decided. Fourthly, the data collection was prepared, involving the development of the data collection instrument and the definition of interviewing procedures. Finally, the data analysis procedures were defined. This process is represented in Figure 7.1. and subsequently described in detail.



Source: Based on Gremler (2004) and Creswell (2007).

Figure 7.1. The CIT research process

7.3.1. Problem definition and objectives of the research

The first step in the research process (Figure 7.1.) is very important as it sets the foundations by defining the aims of the study. Our main intent was to understand the entrepreneurial marketing practices in context. The rich contextualized information that CIT yields (Hughes, 2007) allowed us understanding the entrepreneurial marketing decision making process as a whole, both its influences and consequences, being that context entirely established from the subject's perspective (Chell, 2004).

By focusing on the entrepreneur's marketing decision making process, the study aimed not only at discovering the nature of the entrepreneurial marketing concept and practices, but also at achieving a comprehensive understanding of the underlying decision making process, the contextual influences and its perceived effectiveness. Therefore, the use of CIT allowed us focusing on the entrepreneur's marketing decisions and understanding the process and the cognitive mechanisms involved. It provided us ground to explore the circumstances (context) under which the decisions, perceived as critical for the business development, are made, consistent with previous studies (Münscher & Kühlmann, 2012; Chell, 2004; Chell & Pittaway, 1998).

Based on previous literature, the general objectives of the research and pilot interviews' results, we set the following specific objectives of the research using CIT:

1. To identify events and marketing decisions that were perceived as having had a significant positive or negative impact on business development;
2. To describe the actions resulting from these decisions;
3. To apprehend what is understood by positive and negative impact and business development (outputs/performance);
4. To explore what led to a certain type of decision (what are the influences);
5. To explore the decision making process (people involved, information gathered, external and internal influences...);
6. To explore relationships between entrepreneurial marketing/managerial marketing decisions and their effects on business development, in order to understand under what circumstances each marketing approach is more appropriate.

7.3.2. Study design

Concerning step two of the CIT research process (Figure 7.1.), as suggested by Gremler (2004), one should clearly determine what constitutes a critical incident. Previous studies, particularly within the entrepreneurship field, use different terms to refer to critical incidents during the interviewing process, such as *life or death decisions*, *events or decisions with significant impact*, *surprising and challenging events* (Taylor & Thorpe, 2004; Stokes, 2000a; Johannisson, Landstrom & Rosenberg, 1998). In our study, we asked interviewees to identify and describe any *situation or event* that had a significant *positive or negative impact* on the *development of the business*. Participants were not asked particularly about their marketing decisions, since we intended to get an overall view of all types of decisions they have to make and also to verify whether the situations considered important always involve decision making. Additionally, not asking entrepreneurs directly about marketing allowed avoiding narrowing the focus on their own interpretation of marketing.

A total of 161 incidents were identified, but, as Gremler (2004) notes, «CIT researchers need to consider what constitutes an appropriate critical incident and identify relevant criteria for excluding inappropriate incidents» (p. 80). Following the author's advice for data purification, we used, in the analysis, the incidents that met the following criteria: a) being marketing-related or having had marketing consequences; b) representing a decision or having led to a decision. Fifteen incidents failed to fall into those categories and were removed from the analysis, leaving a total of 146 usable incidents, obtained from 42 interviews. As mentioned previously, other studies in the entrepreneurship area using the interview as data collecting instrument for CIT used similar or smaller number of critical incidents. For instance, Chell and Pittaway (1998) based their study on 126 critical incidents and Kaulio (2003) on 65.

The unit of analysis was not the incident as an overall story or the critical incident *per se*, but the critical response behaviour contained within the story (Keaveney, 1995), that is, the decision that either led to a certain critical incident or that was made as a consequence of it. Figure 7.2. summarizes how the research object was defined.

Activity to be studied	Decision making and consequent action developed with the purpose of commercially explore the business idea.
Aim of the activity	Develop new products, gain visibility, market research, market prospection, create brand, selling, establishing commercial partnerships, among others.
The situation	Who: 42 Portuguese start-up companies. What: marketing decisions and activities.
Critical incidents	Events that had a positive (effective) or a negative (ineffective) impact on the business development.
Critical response behaviours	Decisions and decision making processes related with those events.
Analysis focus	What was decided; why it was decided; how it was decided and how it was done; why it was considered positive/negative.

Figure 7.2. Study focus

7.3.3. Sample

Step three of the research process (Figure 7.1.) concerns the decisions made about the sample. The CIT study involved 42 companies, selected using a nonprobabilistic purposeful sampling procedure, corresponding to the same number of interviews. Purposeful sampling can be defined as an intentional selection of cases which are considered information-rich, and from which it is possible to learn a great deal about the issues that have central importance for the purpose of research (Patton, 2002). In a sense, all sampling in a qualitative research can be considered purposeful sampling, as cases are always selected with the explicit intention of meeting the information needs of the study (Coyne, 1996). As stated by Patton (2002), «studying information-rich cases yields insights and in-depth understanding rather than empirical generalizations» (p. 230).

When preparing the fieldwork, several decisions had to be made concerning: a) who should be sampled, regarding the decision about who the respondents should be; b) how to sample them, that is, the criteria to select them from the population; and c) how many people needed to be sampled, concerning the sample size (Creswell, 2007). Regarding the *who* question, considering that our main intent was to understand the entrepreneurial marketing decision making process and both its uncertain contextual conditions and consequences, and given the fact that uncertainty is often related to both

entrepreneurship and innovation (Jalonen, 2011; Freel, 2005; Zhao, 2005; Brouwer, 2000), the targeted informants were entrepreneurs, responsible for marketing decisions within innovative entrepreneurial companies, operating in unstable environments.

In what concerns the *how* question, about the qualitative sampling strategy, we considered important to seek some homogeneity to be able to understand more deeply the entrepreneurial decision making context. Therefore, we first pre-defined several criteria to select the entrepreneurial companies and, subsequently, we identified the main marketing decision maker within the selected companies. The identification of an entrepreneurial company is not straightforward, though. Literature is not consistent both regarding the naming and the characteristics of those firms, although newness and small size are commonly attributed to them, as exemplified ahead in this section. So, designations such as *start-up*, *new venture*, and *small firm* are sometimes used interchangeably to refer to entrepreneurial firms.

Moreover, criteria to help identifying innovative firms do not abound, although some studies have focused on such characterization. For instance, Khan and Manopichetwattana (1989) found that innovative small firms are younger, more proactive, more research oriented, higher risk-takers and have a better quality management than their non-innovative counterparts. Baldwin and Johnson (1995) concluded that more innovative firms develop different business strategies, not only focusing more on R&D, but also putting emphasis on areas such as marketing and human resources. However, most of these characteristics are very difficult to identify in advance for sampling purposes. As Aldrich and Martinez (2003) note, studying innovative entrepreneurship is no easy task, not only because it has been proven difficult locating and soliciting cooperation of those firms, but also because innovation is defined by activity outputs, not by intentions and, therefore, it is needed to have at least some information about the success of the innovative construction. Given that some industries are typically more innovative than others, this is frequently used as indicator. As technology is also often related with innovation, terms such as *high technological* and *knowledge-based* industries are commonly used designations, but again, we did not find a standard use of these terms in literature.

Table 7.2. presents examples of the terminology and criteria used in some empirical entrepreneurship studies, within our field of interest, to characterize entrepreneurial firms acting in innovative and, therefore, uncertain contexts. As expressed previously, innovative entrepreneurial firms are usually portrayed as new, small and acting in technological or, more generally, knowledge intensive areas. The age of the firm, in number of years since start-up, is most often used to identify new business. This indicator may vary substantially, though. Some authors maintain that, in a period of six years, a company is considered a new venture, whereas others suggest that three years are more appropriate (Aspelund, Madsen & Moen, 2006). Praag and Versloot (2007) define entrepreneurial firms as new entrants in the market, being younger than seven years old. However, companies with more than one decade are also included in entrepreneurial studies, as Table 7.2. shows. Moreover, in entrepreneurial marketing research, newness is not always used as sample selection criterion, being the small and medium-sized enterprises designation commonly used to refer to the organizations that implement such marketing practices (e.g. Bettiol, Di Maria & Finotto, 2012; Becherer, Haynes & Helms, 2008).

The number of employees is also often used to control for the size, but again, there is no clear criteria to determine small companies, except some particular cases where the legal definition of small companies is used as the top limit (e.g. Mort, Weerawardena & Liesch, 2012; Matthews & Scott, 1995). Literature presents examples of entrepreneurial firms and small firms being combined in the same sample, denoting that communalities exist and that there is not a clear cut line between the two (e.g. Alstete, 2008). In fact, the sole designation of small to medium enterprise is used to refer to participating companies in some entrepreneurship studies, particularly in the entrepreneurial marketing area (e.g. Jones & Rowley, 2011). Finally, industry is sometimes, but not always, used to select companies acting in innovative and, consequently, turbulent and uncertain environments, pointing towards the more technological and emergent areas, as opposed to more traditional or mature industries.

Table 7.2. Entrepreneurial firms' designation and characteristics in some previous studies

Main focus/ Studies		Designation	Sample characteristics		
			Age	Employees	Industry
Marketing / entrepreneurship interface research / entrepreneurial marketing	Mort, Weerawardena and Liesch (2012)	International new ventures / global start-ups	Year of inception within a 10 year range	Employing fewer than 200 people	Hi-tech and low-tech industry sectors
	Jones and Rowley (2009)	Small technology firms	Up to 14 years	Under 50 employees	Software and information technology
	Becherer, Haynes and Helms (2008)	Small to mid-sized enterprises	Up to more than 51 years	Up to more than 101 employees	Manufacturing, wholesale/distribution, service, retail and others
Effectuation theory and uncertainty studies	Fisher (2012)	Ventures	Up to 6 years since foundation	n.a.	Consumer internet Web-based
	Loch, Solt and Bailey (2008)	Novel venture/new venture / start-up	4 years since foundation	30 employees	Electronics (one single case)
	von Gelderen, Frese and Thurik (2000)	Small business start-ups	Founded during the previous 5 years.	Less than 50 employees	All industries, except retail, repair shops, bars, and restaurants
	Matthews and Scott (1995)	Small and entrepreneurial firms	In business an average for 23 years.	Fewer than 500 employees	n.a.
Other studies targeting specifically new ventures and high technology start-ups	Zhang and Li (2010)	New ventures/ technology firms	8 years old or younger	n.a.	Electronic information; new energy and new material; pharmaceutical and bioengineering; optical-mechanical and electric products
	Baum and Silverman (2004)	Startups /new biotechnology firms	Began operations during a 10-year period	n.a.	13 industries within biotechnology (such as agriculture, human therapeutics, engineering, environmental, food, beverage and fermentation, veterinary, and energy)

Table 7.3. (Continued)

Main focus/ Studies	Designation	Sample characteristics		
		Age	Employees	Industry
Yli-Renko, Autio and Sapienza (2001)	Young technology-based firms	Up to 10 years old	Average number of employees: 24	Pharmaceuticals, medical equipment, communications, technology, electronics, or energy/environmental technology
Zahra, Ireland and Hitt (2000)	New venture firms	6 years or younger	n.a.	12 high-technology industries, such as biotechnology, computer software, factory automation, environmental technologies, aerospace, advanced materials, and semiconductors.
Manigart and and Struyf (1997)	High tech Startups	Founded no more than 10 years ago	n.a.	Electronics; Software; Medical; Environment; Biotechnology

To select the companies to participate in our study, we used the three above mentioned criteria: time in business (age of the firm), size and industry. As for the first criterion, in face of the diversity of age ranges used in entrepreneurship studies, initially we set the limit of six years in business to select the companies. That decision followed the recommendation of Zahra, Ireland and Hitt (2000), who argue that the six year limit is gaining consensus as a fairly good number to represent the maximum age of a start-up company. Additionally, as there is evidence that in retrospective interviews data deteriorates as the length of the recall period increases (Beckett et al., 2001), we considered that a longer age may lead to more recall errors, although older companies were posteriorly included for theoretical exploration reasons, as it will be explained later in this section.

In most cases, the age of the firm was defined by the time since the formal constitution. This indicator must be regarded carefully, however, since some firms start working before the constitution and others are not yet selling their offers several years after the constitution. In our sample, one firm was not legally constituted, at the time of data collection, because entrepreneurs decided that they would only register the company either if they needed to hire someone or if they needed to register a sale, in order to avoid the administrative costs related to the creation and maintenance of a company.

However, the brand name was already registered, the project was being operationally implemented and entrepreneurs considered that the firm was already active. Another company is an academic spin-off, created as such, more than six years ago, and making sales through the institutional channels, but was not constituted as a company at the time data were collected. The entrepreneur explained that they did not feel it was the appropriate time to take that step, since promoters were involved in other projects.

Regarding size, we took into account the *European Commission Recommendation 2003/361/EC of 6 May 2003* concerning the legal definition of small enterprises. Thus, we considered only companies employing less than 50 people and whose annual turnover did not exceed EUR 10 million at the time of the first contact.

Finally, we selected knowledge intensive, technological and science-based small new companies. These classifications may, however, present some challenges, as shown in the literature review. While science-based firms are easier to identify, as they result from academic and other public research centres, knowledge-based and new technology firms have wider and more complex classifications. For instance, when reviewing the economic importance of new technology-based firms in Europe, Storey and Tether (1998) acknowledged that defining the term is not a simple matter, but typically definitions point to high technology sectors with focus on innovation. Similarly, some attempts to operationalize knowledge-intensity include criteria such as ratio of R&D investments to sales, percentage of skilled employees and total employment cost on a per firm basis (see, for instance, Hashai & Almor, 2004). Given the difficulty to access such information to define the sampling frame, we opted to focus on recognizably knowledge-intensive and innovative industries and some science-based areas, namely: digital technologies; biotechnology; engineering; advanced textiles and geology. Consultancy and business services were also considered in our study, particularly because the selected companies within this activity target mainly other knowledge-intensive and technology firms and are, themselves, considered knowledge-based and innovative in approach.

The choice of knowledge intensive and science-based new firms was due to several reasons: i) in general, they develop their activities in turbulent, fast changing, unpredictable environments that portrait the uncertainty of the effectual decision making; ii) these companies are recognized to contribute greatly to economic development because of their innovation potential (Acs, Desai & Hessels, 2008; Salgado-Banda, 2007; Wong, Ho & Autio, 2005; Acs, 2006); and iii) their success and performance are highly variable (Markham, 2002; Branscomb & Auerswald, 2001), suggesting an opportunity to explore the effectiveness of their marketing decisions, since marketing is a way to

mitigate the risk of failure (Udell & Hignite, 2007; Zimmerer & Baglione, 2009; Cooper, 1994). In view of the fact that these firms typically show modest formal marketing expertise, it was expected to find, at least to a certain extent, a lower prevalence of marketing activities developed through analytical reasoning processes and more entrepreneurial marketing activities.

Sample was not entirely pre-defined, though. On the contrary, a theoretical sampling procedure, borrowed from the grounded theory method, was used, which means that during the data collection process and simultaneous analysis, we decided, on analytical grounds, to collect specific data allowing exploring emergent theoretical issues (Strauss, 1987). We began by selecting the most obvious sources of data and most likely informants, but as results started to emerge, other cases were incorporated in order to further explore and strengthen the findings (Goulding, 2000). Therefore, 12 companies with more than six years of activity (Mean=8.7; SD=2.4) were also included to amplify the understanding about the dynamics and evolution of the marketing practices and underlying logics of decision making. This decision resulted from the detection of changes in time, along the company's development, suggesting the use of different marketing process frameworks in different moments of business development. Surprisingly enough, some interviewees from these older companies reported only incidents that had occurred in the earlier life of the firm. This result contrast previous findings from the empirical literature about retrospective interviewing that report the occurrence of telescoping, that is, the tendency of recalling more recent events and fewer from a more distant time in the past (Beckett et al., 2001).

The identification of populations from which to extract the sample in the field of entrepreneurship is very difficult, as these listings are generally not available. The researcher may have to resort to other secondary sources, such as newspaper articles and word-of-mouth to identify new ventures to investigate (Neergaard, 2007). In our research, in order to identify the prospect participants, our first step was to search for online media publications about new or innovative companies, whose activity was considered worthy of being reported. Concomitantly, companies in science and technology parks were listed. The second step was to complete the firms' information with data retrieved from business databases, such as www.linkb2b.pt and www.einforma.pt, in order to confirm whether the companies met the defined criteria. Northern region of Portugal was privileged due to accessibility and practical reasons. The selection of critical and convenience cases, which can provide specific information about the problem and be accessed easily to collect the research data, is frequently used as a sampling strategy in qualitative research (Creswell, 2007).

A non-exhaustive database of 80 companies was created, with the following information: name of the company, website, physical address, telephone number, foundation year and activity description. Regarding the decision maker, pilot interviews allowed us identifying that entrepreneurial marketing decisions are, generally, assigned to the Chief Executive Officer (CEO). In order to directly invite the main person of interest to participate in the research and, this way, make a more effective approach, a thorough search for the name and direct contact of the prospect interviewee, using different means, was undertaken. Online information tools, such as the LinkedIn.com professional network and queries in search engines were used, which lead to most of the targeted CEOs' names and direct contacts. Others were identified through personal contacts or were referred by fellow interviewees.

The last question – *how many* – regarding the sample size, is also very important, although we did not find in literature a clear consensus as to how to define in advance the ideal number of cases to be selected in qualitative research. The criterion of data saturation, which is defined by the *The SAGE encyclopaedia of qualitative research methods* (Given, 2008) as «the point in data collection when no new or relevant information emerges with respect to the newly constructed theory» (p. 195), is often recommended to determine purposive sample sizes. However, as Guest, Bunce and Johnson (2006) note, literature offers a vague operationalization of the saturation concept. The authors also argue that there are few guidelines to estimate, before entering the field, how many interviews will be needed to reach saturation. These researchers found in literature very different sample size recommendations, ranging from six to 60, depending on the authors, the types of qualitative research and the sample homogeneity. Guest, Bunce and Johnson (2006) offered a contribution to answering the question about how many interviews are needed to reach a point of thematic exhaustion or the «point in data collection and analysis when new information produces little or no change to the codebook» (p. 65), as they define theoretical saturation. In their study, the authors found that the first 12 interviews covered almost completely the full range of thematic discovery, with the additional contributions of new interviews as only residual.

Taking into account that 12 interviews should be the minimum acceptable for our research, and considering that we also intended to quantitatively analyze the data, we decided that the sample should be larger and that the final sample size would be defined during the data analysis process. We started with a total of 50 entrepreneurs being invited to participate in this phase of the study, which was extended for a six month period. Five never replied to the invitation, despite the several follow ups to the first request; two postponed due to schedule difficulties, making it impossible to include them, given

time constraints; and only one explicitly declined the invitation. We believe that the very satisfactory 84% acceptance rate resulted from the fact that each invitation was fully personalized. Not only the intended person was directly contacted by e-mail, but each entrepreneur was explained in detail why his/her particular company was considered interesting to be included in the study. In fact, some entrepreneurs provided feedback about our approach, confirming that they understood that their particular participation would be of value for the study, and, therefore, they accepted to participate, despite the overwhelming amount of requests they receive for such research studies. Although both the database creation, e-mailing and, in some cases, telephone calls, were fairly laborious and time-consuming, we believe that results paid off.

The sample size was considered adequate, since theoretical saturation was achieved at the 25th interview, when 93 usable incidents were already identified, as explained ahead. We decided, however, to add 17 more cases, allowing gathering information on 53 additional marketing related decisions, in order to be able to explore the data in different perspectives, including quantitatively.

7.3.3.1. Profile of the sample

The selected companies operate within six different business areas. Digital technologies is the most represented area, corresponding to 42.9% of the firms, which reflects the strong presence of this sector in the region of Braga, from where a large part of the companies were selected. This industry includes a wide range of activities, such as software development and computer systems; mobile computing; multimedia; 3D modelling and animation; and digital interactivity technologies and platforms. Biotechnology, in turn, is the second most represented area (16.7%), encompassing activities as diverse as brewing technologies; clinical testing; vinification technologies; behaviour and molecular analysis; and genetic diagnosis. The sample also includes companies from the consultancy and business services (14.3%), engineering (11.9%), particularly electronic and mechanical, advanced textiles (9.5%), including functional textiles incorporating nanotechnology and geology (4.8%). Most studied companies offer both products and services and target primarily the business to business market (B2B). Science and technology-based companies, which account for almost a third of our sample, are firms developed from academic knowledge, some of them holding an institutional *academic spin-off* label. All interviewees considered their companies innovative, either in terms of

products offered or processes used. The demographic characteristics of the 42 sampled companies are summarized in Table 7.3.

Table 7.3. Profile of the sampled firms

Companies' characteristics		Frequency	%
Industry	Digital Technologies	18	42.9
	Biotechnology	7	16.7
	Consultancy and business services	6	14.3
	Engineering	5	11.9
	Advanced textiles	4	9.5
	Geology	2	4.8
Total		42	100
Years in business Mean:4.5 (SD=3.30)	Up to 1 year	6	14.3
	More than 1 up to 4 years	13	31.0
	More than 4 up to 6 years	11	26.2
	More than 6 years	12	28.6
Total		42	100
Employment* size group Mean:6.8 (SD=8.46)	1 to 3 employees	15	35.7
	4 to 6 employees	15	33.3
	7 to 10 employees	6	14.3
	More than 10 employees	7	16.7
Total		42	100
Turnover** size group Mean:210 955	Up to 50 000	15	35.7
	More than 50 000 up to 300 000	6	14.3
	More than 300 000 up to 1M	5	11.9
	More than 1M up to 2M	1	2.4
	More than 2M	1	2.4
	Not available/no answer	14	33.3
Total		42	100
Main target market	B2B	35	83.3
	B2C	7	16.7
		42	100
Knowledge intensity	Knowledge-based	29	69.0
	Science and technology-based	13	31.0
		42	100

*Data referring to 2012; **Data referring to 2011 in EUR.

In addition to the industry, participating companies are also characterized regarding age; size in terms of both number of employees and turnover; main target market type, either Business to Business (B2B) or Business to Consumer (B2C); and the level of knowledge intensity involved in the activity, as either science and technology-based or knowledge-based. Typically, new companies that use scientific

and academic knowledge to base their activities are in the first group, and companies that use other knowledge as their main source of advantage are in the second group.

Regarding the age, the average time in business of our sample is 4.5 years, with more than 70% having less than six years of existence. As for the size, participating companies are, in general, very small. In fact, most are classified as micro companies, employing 10 people or less (83.3%) and, from the ones that reported their annual turnover, all, except for one, stand below EUR 2 million. The maximum number of people employed is 50 and the maximum turnover value is EUR 3 million.

The large majority of the participating companies (83.3%) target the B2B as their primary market, although some of them also offer products or services to the B2C market at the same time, but with less expression in terms of sales. That result can be explained by the fact that the B2B market is considered by the interviewees easier and less risky to approach. Finally, although there are a substantial number of science-based companies in our sample, the majority (69%) is based on knowledge that was not directly transferred from academic research centres.

Regarding the interviewees' characteristics (Table 7.4.), we may conclude that they are, in general, highly educated, with almost 60% holding a master or a PhD degree, mostly in engineering, hard sciences and technology areas. A smaller proportion (21.4%) has background in the economics and management area and are the only participants reporting having had contact with formal training in marketing. The low incidence of formal education in economic and managerial fields is relevant, since interviewees are, in most cases, the primary marketing decision maker and there is evidence that specifically university education in these areas has a positive effect on new business growth (Colombo & Grilli, 2005).

Participants are young, averaging about 35 years old, ranging from 22 to 56 years old at the time of the data collection. Most interviewees in this sample are male (88.1%), which is consistent with previous studies, indicating a greater male involvement in entrepreneurial activities in different economies (Xavier, Kelly, Kew, Herrington & Vorderwülbecke, 2013; Lockyer & George, 2012). In the European Union, women represent only one-tenth of all business owners and their firms are mainly concentrated in low-value-added sectors (Marlow & McAdam, 2013), which may also help understanding the low representation of women in our sample.

Table 7.4. Profile of the participating interviewees

Entrepreneurs' characteristics		Frequency	%
Area of education	Informatics	13	30.9
	Engineering	8	19.0
	Economics and management	9	21.4
	Chemistry	2	4.8
	Geology	2	4.8
	Biology	6	14.3
	Architecture	1	2.4
	Physics	1	2.4
Total		42	100
Level of education (Higher degree)	Bachelor	17	40.5
	Master	15	35.7
	PhD	10	23.8
Total		42	100
Entrepreneur's age*	25 or less	4	9.5
	26 to 30	9	21.5
	31 to 35	13	31.0
	36 to 40	8	19.0
	41 and above	8	19.0
Total		42	100
Gender	Male	37	88.1
	Female	5	11.9
Total		42	100
Formal training in marketing	Yes	9	21.4
	No	33	78.6
Total		42	100

*Data referring to 2012.

7.3.4. Data collection and interviewing procedures

The step four of our CIT research process (Figure 7.1.) regards the procedures involved with data collection through interviewing. Since we decided to focus the study in the decision making process that results on entrepreneurial marketing activities instead of marketing activities *per se*, we asked participants to identify events and situations that they would consider having had a significant positive or negative impact on the business development, from the time the firm was created until the present moment. The decision making process related to the reported events was then explored, both in terms of what led to that particular decision and how the decision process happened. Subsequently, we tried to understand what specific marketing practices were used in each situation. We were, thereby, able to set the context for the marketing decision making process, identify the resulting practices and

assess the perceived impact on business development. We opted to use the broad concept of business development so as to leave room for respondents to provide us indicators of decision effectiveness without any influence from the interviewer.

The interview guide (Appendix 2) was pre-tested with two entrepreneurs and only minor adaptations were made, namely by introducing more probing questions. This guide was not, however, applied in a structured and rigid manner. Rather, it allowed us tracking for the main topics to explore as the conversation flowed, assuring the attainment of the research objectives. Table 7.5. depicts the correspondence between the objectives of the research and the questions in the interview guide, although several questions could contribute to attain the same objectives and the same question could contribute to several objectives, due to the unstructured nature of the interview.

Table 7.5. Research objectives vs. interview guide questions

CIT research objectives	Interview guide question number and topic
1. Identify events and marketing decisions perceived as having had significant positive or negative impact on business development	Q.1. Situations/events that had a significant positive or negative impact on the development of the business
2. Describe the actions resulting from these decisions	Q.1.3. How decisions were implemented and how the business routine was affected
3. Apprehend what is understood by positive and negative impact and business development (outputs/performance)	Q.2.; Q.2.1. Why did a decision had positive/negative impact What is considered to be a positive or negative impact
4. Explore what leads to a certain type of decision (what are the influences)	Q.1.1. What lead to a certain decision/why the decision was made
5. Explore the decision making process (people involved, information gathered, external and internal influences...)	Q.1.2. Description of how a particular decision was made
6. Explore relationships between entrepreneurial marketing/ managerial marketing decisions and their effects on business development, in order to understand under what circumstances each marketing approach is more appropriate.	Q. 2.2.; Q.3. What would be made differently to produce better results Business stage of development when decisions were made

As noted earlier, one of the problems related with CIT is that it reports to past events, and it is dependent on the ability of the interviewee to have recollection of those moments. In fact, retrospective interviews are inexorably subject to recall errors (Eisenhower, Mathiowetz & Morganstein, 2004). In order to provide visual aid for memory, we followed the recommendation of Chell (2004) and offered participants a sheet of paper with a line starting in the year of inception, in which they should situate the most relevant events that significantly influenced how the company developed until the present time (see Appendix 3 for an example).

In fact, there is empirical evidence that the use of a timeline as a visual recall aid increases recall accuracy (van Der Vaart & Glasner, 2007). This bias reduction technique yielded several advantages. Besides helping interviewees to go back in time and remember important events, it also allowed them going back and forward in the descriptions without losing track of these key events and even adding new events at any point in the conversation. Finally, it helped selecting the most relevant events to explore, since most interviewees started by identifying several events, but then, using the timeline, were able to assess their relative importance, focusing only on the truly critical ones. For us, on the other hand, it was useful as well, since we were able to go back when appropriate and explore less detailed descriptions and compare decision processes in different moments in time, having this roadmap as a guide.

On average, interviewees reported between three and four incidents during the interviews that had an average length of 45 minutes, ranging from 23 minutes to one hour and 50 minutes. A total of 31 hours and 36 minutes of conversation were captured. All interviews were made personally, mainly in the headquarters of the company, except for two, made by videoconference due to the fact that interviewees were geographically distant, including abroad. Since it is important to capture data in its natural form for the purpose of understanding meaning (Legard, Keegan & Ward, 2003) and to use verbatim records in the subsequent analysis (Johnson, 2001), permission for tape recording was asked before starting the interview. Only one participant did not allow the use of a digital recorder.

The assurance of confidentiality of information and anonymity was given, although most interviewees expressed no concern about that, stating that they did not mind to be identified. In fact, we developed a confidentiality agreement that was delivered in the pilot interviews, but this procedure was not replicated in CIT interviews, because participants did not consider it necessary. On the contrary, we felt that, in most cases, such a document and formality created distance rather than confidence. Even so, for reasons of uniformity and to follow the ethical principle of protecting the individuals that assisted

us in the research (Johnson, 2001), words, names and expressions that could identify the company or the entrepreneur were omitted in the transcripts presented throughout the description of findings. The excerpts are also identified by a code, composed by the following elements: a) #interview number (sequential); b) business area; and c) main target market, either business to business (B2B), business to consumer (B2C) or both, as exemplified: [#1: Textiles; B2C]. Pilot interviews' number is preceded by a zero [#0].

We tried to establish rapport in order to create a favourable context for the conversation and ideas to flow naturally and honestly, allowing creating the needed trust and confidence for important information to be shared. Rapport is a way to convey empathy and make the interviewee understanding that his/her knowledge, experiences, attitudes and feelings are important and will not be judged (Patton, 2002). We focused on creating empathy by gathering for the interview recent or prominent positive news about the company, some of their products or the very entrepreneur, which we used as conversation starters and allowed the entrepreneur to elaborate on a topic that was significant to him/her. In addition, the importance of his/her participation was emphasized, as well as the way data would be used explained. Being aware that too much rapport may hinder the validity of the study, by introducing bias such as socially acceptable answers (Goudy & Potter, 1975), we took care to maintain professionalism as much as possible and some degree of neutrality. As Denzin and Lincoln (2005) warn, while close rapport allows more informed research, it can also create problems, as the researcher may lose distance and objectivity and become a spokesperson for the group studied. At the end of the interview, some participants expressed that they enjoyed the process of having to stop for a minute and looking to the past, searching for important moments of their firm's life. In some sense, recalling such moments and talking about them was viewed as reflecting upon a very relevant part of their lives, and, therefore, a strong emotional involvement was felt in some cases.

The interview followed the exploration structure represented in Figure 7.3. We started by focusing on relevant situations or events that were considered having had significant impact on the company development to create context. Both positive and negative critical incidents were asked, as it is advisable (Münscher & Kühlmann, 2012). What was considered positive and negative for business development was later explored. The description of each incident created the opportunity to explore the decision making process and the conditions under which decisions were made. Then, we focused on both the activities that were implemented as a result of the decision process and their results.

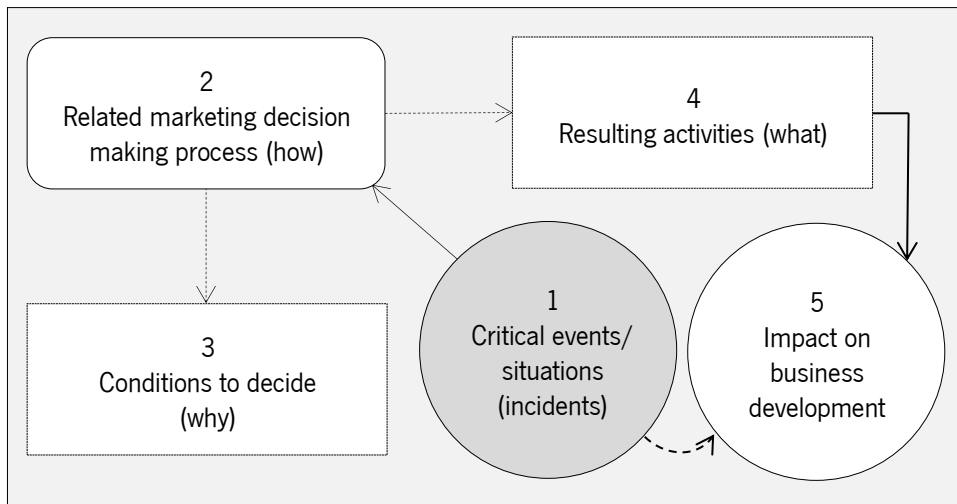


Figure 7.3. CIT interview exploration structure

The data collected was then analyzed, following the procedures explained in the next section. As previously mentioned, after applying the criteria for considering the reported incidents relevant for analysis, 146 marketing decisions were analyzed in terms of the process, context and outputs.

7.3.5. Data analysis procedures and interpretation

We followed a content analytic approach, which is commonly used to analyze this type of data (Gremler, 2004). This research technique allows making replicable and valid inferences from, in this case, recorded speech, which is an important form of reliability (Krippendorff, 2004). However, we also tried to incorporate an interpretive approach, in order to give incidents contextualization, interpretation and explanation from the participants' perspective (Gremler, 2004). So, we not only tried to describe incidents from the participant's point of view, but also tried to explain them from his/her perspective, rather than from our perspective only (Chell, 2004; Gremler, 2004).

We started by listening to the recorded interviews shortly after they have been conducted and taking notes. The objective was to identify salient ideas and preliminarily find major themes, comparing those notes with the ones taken during the interview. When a rough analysis scheme emerged from the first interviews, also geared by the theoretical model and research propositions, we started textually transcribing them. Only the most important portions of the body of data were transcribed and coded due to their relevance to the research question. Although that decision is not consensual, for there are

opinions supporting that all data should be examined, most research methodologists agree that up to one-half to two-thirds of the total record can be left out of intensive data analysis (Saldaña, 2013). This decision was also due to time constraints.

The coding process started the very moment the first data were collected and the first interviews were analyzed. Codes were organized into categories and refined further into subcategories. These categories and subcategories were, then, compared to each other and consolidated in order to find themes, which allow progressing towards the conceptual level that leads to theories (Saldaña, 2013). Themes are patterns found in the information that organizes possible observations or interprets aspects of the phenomenon (Boyatzis, 1998). Thematic analysis allows, then, reducing and analyzing qualitative data by segmenting, categorizing, summarizing and reconstructing it, in order to capture the important concepts contained within a data set (Given, 2008).

For the coding generation, we used both the deductive *a priori* approach and the inductive approach (Crabtree & Miller, 1999; Boyatzis, 1998). The final codebook resulted from a preliminary set of codes aligned with the research question, objectives and the theoretical framework underlying the research and also from data-driven codes derived from the process of raw information interpretation. For instance, while the rationale behind the marketing decision making processes and the consequent practices were coded in accordance to the theoretical framework as either effectual or causal and entrepreneurial or managerial, the contextual incidents and their impacts were classified according to emergent categories. On total, 72 codes were developed, as represented in Appendix 4.

Incidents were firstly classified according to their functional type, in order to find which ones were directly related to marketing issues. We concluded that marketing related incidents represented the majority and that only less than one third of the incidents could be classified in other functional types, such as finance and human resources. Nonetheless, even in these cases, if the critical incidents were found to have led to subsequent marketing decisions or consequences, they were considered for analysis. Secondly, events were classified in terms of their nature. Incidents reported either represent a decision in itself made by the entrepreneur or other member of the team, or refer to a trigger for a subsequent marketing decision. Then, each marketing decision made in the context of the identified incident was classified regarding the level of information available, the existing marketing competency involved, the decision making rationale behind it, the resulting marketing practices and the perceived impacts.

The sequence of analysis of the data extracted from de CIT interviews is represented in Figure 7.4. The critical incidents identified by the entrepreneurs set the basis for the marketing decision making process's exploration. In the decision making process analysis, we considered the logics behind each decision made and the conditions that shape the decision process. Then, different types of marketing actions were related to their underlying logics and conditions and, ultimately, to their consequences in terms of impacts on the business development.

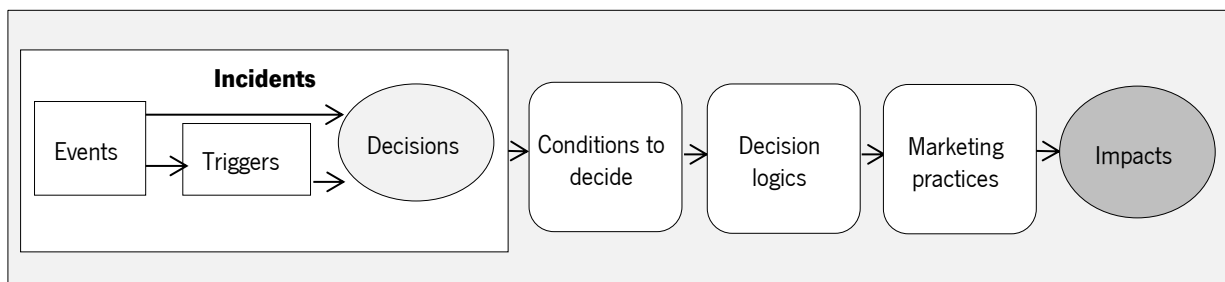


Figure 7.4. Sequence of analysis of incident's related entrepreneurial marketing decision process

Data were organized following the above sequence of analysis, using a spreadsheet, which allowed performing simple counting. Concomitantly, the creative process of making sense of the data by identifying patterns gained shape progressively through visual schemes. An example of both the database and the visual organization of information are presented in Appendix 5. The use of a qualitative data analysis software was considered, but after weighing its learning costs and potential benefits, we opted not to use one. Although they present many advantages, namely related to efficiency, computer-assisted qualitative data analysis do not replace the creative process expected from the researcher and it may even cause loss of the overview (Malhotra & Birks, 2003). Saldaña (2013) also notes that trying to learn qualitative data analysis simultaneously with software to do it may be overwhelming and distract from the data itself. The author suggests that the use of database software such as Microsoft Excel may provide excellent help in organizing data, attribute codes and calculate some basic statistics, highlighting that «CAQDAS (Computer-assisted Qualitative Data Analysis Software) does not actually code the data for you» (Saldaña, 2013, p. 28).

On average, 3.5 incidents per interview were considered for analysis, ranging from one and eight. About 22 different coding decisions, on average, were made for each interview. New codes were

identified in each interview until the point of theoretical saturation. For instance, in the first interview, 20 codes were applied; in the second, we used 22 codes. From these 22, only six were used in the first interview, while 16 represented new codes. The process of finding new codes continued until the 26th interview, from where no more new data were found (Table 7.6.).

Table 7.6. Codes saturation

Interview nr.	Incidents	Coding decisions	New codes by interview	Accumulated
#1	4	20	20	20
#2	4	22	16	36
#3	3	22	10	46
#4	3	17	5	51
#5	5	28	5	56
#6	6	30	1	57
#7	4	24	2	59
#8	3	20	2	61
#9	3	22	0	61
#10	1	12	1	62
#11	2	18	0	62
#12	2	20	1	63
#13	3	19	0	63
#14	2	20	2	65
#15	4	26	1	66
#16	6	36	2	68
#17	2	18	0	68
#18	4	22	1	69
#19	2	17	0	69
#20	4	26	0	69
#21	6	35	0	69
#22	6	26	2	71
#23	5	22	0	71
#24	5	26	0	71
#25	4	24	1	72
#26	4	24	0	72
#27	4	26	0	72
#28	3	19	0	72
#29	4	26	0	72
#30	2	13	0	72
#31	8	32	0	72
#32	3	21	0	72
#33	2	19	0	72
#34	4	24	0	72
#35	2	15	0	72
#36	2	15	0	72
#37	2	10	0	72
#38	4	28	0	72
#39	3	21	0	72
#40	1	10	0	72
#41	2	14	0	72
#42	3	24	0	72
	Total: 146 Mean: 3,5	Total: 913 Mean: 21,7		

Figure 7.5. shows graphically the distribution of new codes by interview. It is possible to observe that the majority of new information coded is concentrated in the first fifth of the distribution. Specifically, 61 codes (84.7%) were generated in the first eight interviews.

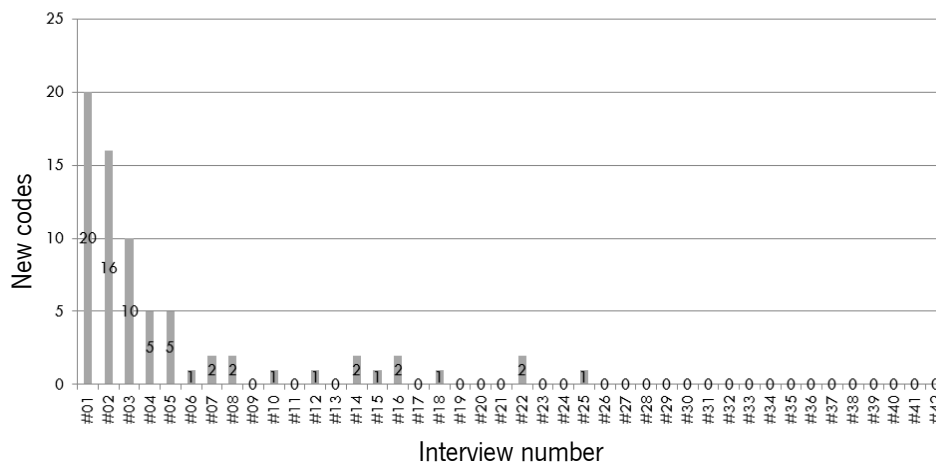


Figure 7.5. Distribution of new codes by interview

In terms of the quality and credibility of qualitative research, triangulation is usually recommended in order to enhance them. According to Patton (1999), it is possible to achieve triangulation by «combining multiple observers, theories, methods, and data sources» (p. 1193). Due to operationality issues, in the majority of studied cases, only one source of data was used, which was the entrepreneur mainly responsible for making marketing decisions within the young company. In fact, lack of source triangulation when researching processes in entrepreneurship is a recognized disadvantage that derives mainly from practical difficulties in accessing other persons involved in the same processes (Chell & Pittaway, 1998). Regarding the theories, the study was also mainly drawn upon the cognitive perspective. However, both qualitative and quantitative methods were used to explore data and triangulation was also made through a combination of multiple data analysts.

Reliability, as defined by Gremler (2004), regards consistency, that is, the technique yielding the same result each time if applied repeatedly to the same object. In the author's words, «In CIT studies employing content analytic methods, assessments of reliability generally focus on judges' (or coders') abilities to consistently classify incidents into specified categories» (Gremler, 2004, p. 74). The debate around such topic remains confused, though. While some scholars advocate a strict

assessment of reliability of qualitative research, others defend a more relativistic position, from where the concern of consistency is meaningless, depending on the ontological perspective assumed (Armstrong, Gosling, Weinman & Marteau, 1997). In fact, some research methodologists question the usefulness of the intercoder agreement measurements for qualitative data analysis, given the fact that the whole process is interpretative in nature (Saldaña, 2013). Armstrong et al. (1997) believe that, irrespectively of being considered a methodological problem for the modernist standpoint or just a confirmation of diversity, for the post-modernist view, the consistency of the accounts of different researchers can, in fact, be assessed. Their study, in which six different experienced qualitative researchers analyzed data from a focus group, showed a degree of consensus in theme identification, although these themes were organized differently. The authors' results show that all qualitative analysis involves some level of interpretation and subjectivity that is inherent to the researcher. Within the interpretative paradigm, validity is based on convention, that is, it is based on the willingness the social actors show in finding acceptable an account of the world (Blaikie, 1991).

With this perspective in mind, we sought to assess whether the interpretations of different researchers about the data classification were consistent. To perform such verification, after we coded and categorized all the 146 incidents, they were read again and recoded and adjusted in a more meaningful way. Then, we focused on measuring the intercoder reliability or agreement, which is «[...] a measure of the extent to which independent judges make the same coding decisions in evaluating the characteristics of messages» (Lombard, Snyder-Duch & Bracken, 2002, p. 587). A reliability subsample of 17 incidents, involving 119 coding decisions (13%), was selected and coded independently by one of the supervisors, from the total sample 146 incidents, which involved 913 coding decisions, made by the primary researcher. The subsample size met the general textbook recommendations, which range from 10% to 20% of the total sample (Neuendorf, 2002). Seven variables were tested for interrater reliability, namely nature of incidents; type of decisions; level of information available; level of marketing competency; logic of decision making; marketing practices; and decision's effects. Coding instructions were given, including definitions of each category and classification criteria, as implemented in previous studies (e.g. Bitner, Booms & Mohr, 1994).

We first calculated the percentage of agreement for each variable, concluding that the two coders agreed upon 90.8% of all coding decisions, on average. However, this measure has important drawbacks, such as failing to account for chance agreement (Neuendorf, 2002). Consequently, we used the Cohen's Kappa to measure agreement, following recommendations in favour of this measure

among the several existent (Dewey, 1983). The Kappa value was above 0.82 for four variables and above 0.76 for three variables. We also took into account the criticism regarding this measure (Hayes & Krippendorff, 2007) and calculated the Krippendorff's alpha, as an alternative measure. The two measures offer similar results, though. The results are presented in Table 7.7., where we may observe that all variables have reliability scores above 0.70. Although there are no standards for these measures, the rule of thumb indicates that above 0.61 there is a substantial agreement, and above 0.81 there is an almost perfect agreement (Landis & Koch, 1977). For exploratory research, the criterion of 0.70 is often used (Lombard, Snyder-Duch & Bracken, 2002).

Table 7.7. Interrater agreement measures

Variables	Percent Agreement	Cohen's Kappa	Krippendorff's Alpha (nominal)	N Agreements	N Disagreements	N Cases	N Decisions (2 raters)
Type of decisions	88.2%	0.861	0.864	15	2	17	34
Nature of incidents	100%	1	1	17	0	17	34
Level of information available	88.2%	0.761	0.764	15	2	17	34
Level of marketing competency	94.1%	0.821	0.825	16	1	17	34
Logic of decision making	94.1%	0.876	0.879	16	1	17	34
Marketing practices	88.2%	0.767	0.771	15	2	17	34
Decision's effects	82.4%	0.763	0.767	14	3	17	34
						Total	238

Regarding triangulation of methods of analysis, as explained earlier, mix methods were applied. Although CIT is predominantly used for exploratory research aiming at understanding behaviours and generating theory, it may be also used for relationship testing, since both qualitative and quantitative data can be extracted (Münscher & Kühmann, 2012). Other CIT studies also used this mixed methods approach that allows further exploring the results and leading to multiple interpretations (Kaulio, 2003; Meuter et al., 2000; Chell & Pittaway, 1998). However, CIT is still a qualitative methodology and meant not to be generalizable (Meuter et al., 2000).

In order to be able to use CIT data quantitatively, the data were quantitized. Quantitizing refers to an approach in which one data type from a data collection is converted into another data type to support further analysis (Münscher & Kühlmann, 2012). Through this process, qualitative data is converted into numerical codes and statistically represented, in order to aid the interpretation of mixed method results and add greater legitimacy to the researcher's conclusions (Onwuegbuzie & Teddlie, 2003). As Onwuegbuzie (2003) points out, numbers and words co-exist in every research setting. The author argues that, in fact, «the only important difference between quantitative and qualitative data is that the former represent more *empirical precision*, whereas the latter represent more *descriptive precision*» {italics in the original} (p. 396). Onwuegbuzie (2003) considers that the frequency of emergent themes can be achieved by binarizing themes, that is, for each participant a score of "1" or "0" is given if his statement represents or not a given theme, allowing computing the effect size for a given observable content. In our study, themes such as the level of information available for a given decision (lower; higher), marketing competency (lower; higher), decision making rational (effectual; causal) and marketing practices (entrepreneurial; managerial) were binarized, allowing exploring several relationships between these variables.

In the next part of this thesis the main results of the data analysis are presented. Verbatim excerpts are used to explore meaning and illustrate findings in the qualitative study, whereas descriptive, bivariate and multivariate tests are used to explore relationships in the quantitative study. Statistical analysis uses IBM SPSS 20.

7.4. Section summary

The data collection comprised two phases. The first involved pilot in-depth interviews, which findings allowed making the subsequent phase of data collection more appropriate. The second phase consisted of interviews using CIT, which yielded rich contextualized data about the entrepreneurial marketing decision making process.

For the second phase of data collection several aspects were considered, namely: a) the problem definition and objectives of the CIT study; b) the study design; c) the sample definition and the sampling procedure; d) the data collection and interviewing procedures; and e) the data analysis procedures and interpretation. The research involved a total of 51 entrepreneurs, 42 of which

participated in the CIT study, selected using a purposeful sampling procedure. The number was considered sufficient, since the theoretical saturation occurred at the 26th CIT interview.

The CIT study allowed obtaining 146 usable incidents, corresponding to marketing decisions or events leading to a marketing decision. The content analysis resulted in identifying and coding each decision regarding: a) the functional type of the decision; b) the nature of the decision; c) the type of the associated marketing practice; d) the level of information available; e) the level of marketing competency; f) the decision logic; and g) the effects of the decision. A total of 913 coding decisions were made and reviewed throughout the process.

In order to assess the reliability of the content analysis, the intercoder agreement was measured and substantial agreement between two raters was found. The most relevant themes were quantitized in order to allow exploring several relationships between the variables in a second stage of data analysis.

IV.

FINDINGS

This part of the thesis presents the main findings of the empirical work, resulting from the data analysis procedures used. Firstly, we describe the results of the Critical Incident Technique interviews that allowed understanding the entrepreneurial marketing process and its underlying decision process, circumstances and outputs. Then, a section of the findings presentation is dedicated to the quantitative analysis of the results, allowing us further exploring the relationships between the elements qualitatively explored.

Research propositions are verified with results of the qualitative study and more specific hypotheses are drawn and tested in the quantitative part of the data analysis. The structure of the chapter is summarized in Figure IV.1.

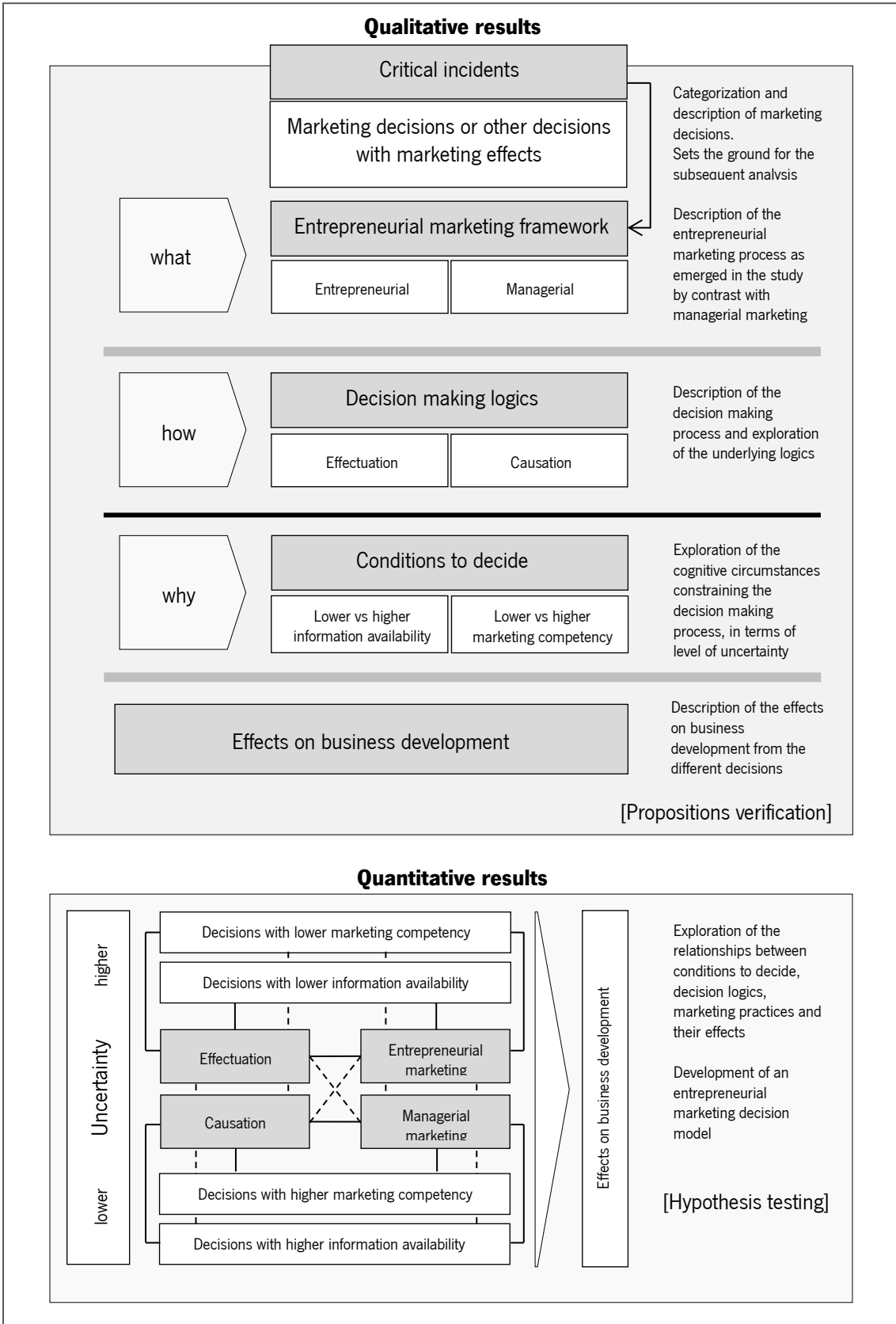
As for the qualitative results, we start by categorizing and describing the critical incidents, setting the ground for the remainder of the study. All incidents considered for analysis are either marketing related or resulted in marketing consequences. Then, the marketing practices implemented by participants are presented in the form of a framework that describes the entrepreneurial versus managerial marketing process.

While the entrepreneurial marketing process describes **what** participant entrepreneurs do, in terms of marketing implementation, the next sections of the results presentation show **how** the underlying decision process happens. The main assumption of this thesis, that entrepreneurial marketing is based on the effectual logic, is explored in this section.

The next step is understanding **why** entrepreneurs reason and act in several different ways. Results describe the entrepreneurial conditions that forge the decision making process and marketing practices, presenting evidence of the role played by uncertainty. This part of the study also describes how entrepreneurs decide under harsh circumstances, what references and criteria they use and the importance of marketing competency.

Finally, the impacts of the analyzed entrepreneurial marketing practices and their underlying decision process and conditions are presented. This section of the results describes what derived from the reported decisions, letting us understanding the effects of the entrepreneurial decision making process on business development. The measure of the impact on business development was left intentionally loose, in order to apprehend it from the entrepreneur's point of view.

The relationship between decision circumstances, logics and marketing practices and their consequent effects are further explored resorting to quantitative analysis, complementing the results of qualitative analysis. The quantitative results allowed us better understanding the effects of different decision making processes and practices under different circumstances.



8. Critical incidents and marketing decision making

As explained earlier, the focus of the current research is on entrepreneurial marketing practices, considering the underlying decision making processes and their effects. The main purpose of exploring the critical incidents that affected the new businesses' development was to find in those incidents marketing related decisions that entrepreneurs considered as having had important impacts. This section describes the incidents identified and the related decisions.

The incidents are first organized in two main dimensions. The first one concerns the type of incidents, described in terms of functional area to which entrepreneurs relate either marketing or other functional areas. The second dimension refers to the nature of the events, classified as spontaneous decisions, which can be either haphazard or emergent or planned; and as stimulated, that is, resulting from triggers, which can be either contingencies or interactions (Figure 8.1.). The related marketing practices, decision making processes, conditions to decide and their impacts are explored in the following sections.



Figure 8.1. Critical incidents

8.1. Categorization of critical incidents

As explained in the methodology section, although the focus of the research is understanding the entrepreneurial decision making process and its consequences in terms of marketing practices, interviewees were not directly asked either about their decisions or about marketing, since we sought to understand the relative importance of marketing decisions in the development of knowledge-intensive and science-based new ventures. Those incidents were, then, explored in terms of their impacts on business. The intent was that entrepreneurs could freely refer to all significant situations affecting the company's evolution, being the interpretation of what consists on a marketing decision and practice made in the data analysis stage by us.

Despite this detachment from the emphasis on marketing during the interview, we found that the majority (72.7%) of the reported incidents are marketing related (Table 8.1.). Within those, there is a strong focus on events related to new product development and introduction, and sales and commercial approaches (Table 8.2.). Critical incidents of these two types account for more than 62% of the specific marketing-related events. This is understandable since the start-up is often settled upon a new product idea and the first priority is to transfer it to the market and sell it.

Table 8.1. Categorization of the incidents by functional type

Categories	nr.	%
Marketing-related incidents	117	72.7
Other areas-related incidents	44	27.3
Total	161	100

Besides new product development and introduction and sales and commercial approach, the incidents were classified in three other categories, as described in Table 8.2., and explained in more detail in the sections ahead, namely: Promotion (17.1%), Marketing strategy and planning (12.0%) and Internationalization (8.5%).

Table 8.2. Categories of marketing-related incidents (MRI)

Categories	nr.	% MRI	% of Total	Examples
New product development and introduction	40	34.2	24.8	<ul style="list-style-type: none"> · R&D discovery · R&D partnership · First product launching · Add new product/services to company's portfolio · Changing basic technology · Proof of concept
Sales and commercial approach	33	28.2	20.5	<ul style="list-style-type: none"> · Commercial model · Distribution and channel choices · Commercial agreements/partnerships · Changes in commercial offers · Sales force team creation · Acquisition of a big/important (strategic) customer · First customer
Promotion	20	17.1	12.4	<ul style="list-style-type: none"> · Event sponsoring/participation · Brand Ambassadors · Web marketing · Advertising campaign
Marketing strategy and planning	14	12.0	8.7	<ul style="list-style-type: none"> · Product range/business areas (segments) · Targeting choices
Internationalization	10	8.5	6.2	<ul style="list-style-type: none"> · Exporting · Direct foreign investment
	117	100	72.7	

Regarding the other functional areas-related incidents, people and finance, which represent two important types of resources, account for 70.5% of the incidents within this dimension (Table 8.3.) The remaining nearly 30% of this category of incidents regard situations or decisions involving business strategy and operational issues.

Table 8.3. Categories of other areas-related incidents (OAI)

Categories	nr.	% OAI	% of Total	Examples
Human Resources	20	45.5	12.4	<ul style="list-style-type: none"> · Constitution of the team of founders · Changes in the team of founders · Production team reinforcement · Research team reinforcement · Training and education
Business strategy and operations	13	29.5	8.1	<ul style="list-style-type: none"> · Vision changed · Strategic equipment acquisition · Operational partnership failed · New strategic supplier · Production partner · Changing facilities · Technology change
Funding	11	25.0	6.8	<ul style="list-style-type: none"> · Entry of an investor · Public funding · Funding application failure · Winning awards in innovation contests (monetary)
	44	100	27.3	

From the 44 other areas-related incidents, we identified 29 that resulted in marketing repercussions. These incidents were further considered for the analysis of the entrepreneurial marketing decision making process in addition to the 117 directly marketing-related incidents. In fact, we observed in our sample that marketing decisions are often intertwined with other aspects of the firms, which is in accordance with entrepreneurial marketing literature suggestions. Carson and Gilmore (2000b), for instance, note that «An SME owner-manager is unlikely to take decisions on marketing issues in isolation from other aspects of the business. Whilst a decision may be “marketing related” it may also be taken as part of another aspect of the business» (p. 366-367). Thus, during the interview, whenever possible, we tried to explore the subsequent marketing decisions and implications when descriptions about other areas-related incidents were being made. An overview of the types of other areas-related incidents that led to effects connected to marketing decisions and actions is presented in Table 8.4.

Table 8.4. Other areas-related incidents and their marketing implications

Categories	Examples	Marketing implications and decisions
Human Resources	<ul style="list-style-type: none"> · Constitution of the team of founders · Changes in the team of founders · Production team reinforcement · Research team reinforcement · Enrolment in capacitation programs 	<ul style="list-style-type: none"> · The products/services offer are based on the team's competences and skills · Addition of managerial competences · Increased the quality of service · Changed product strategy – focus on selling technology · Opportunity to validate the product during the training process / acquisition of marketing competencies / forced to plan and analyse
Business strategy and operations	<ul style="list-style-type: none"> · Vision changed · Operational or commercial partnership failed · Technology change · Business model definition · Major strategic change · Business reorganization · Choosing or changing facilities · Strategic equipment acquisition · New strategic supplier 	<ul style="list-style-type: none"> · Redesign the whole offer's structure and marketing strategy · Need to develop a commercial function · Product had to be delayed · Changes in product strategy · Commercial strategy definition / pricing · Focus on new markets / offer new products · Clarification of product · Better brand image and prestige / networking / better public exposure · Allowed offering new products to different markets · Helped creating a brand identity and enhanced brand image
Funding	<ul style="list-style-type: none"> · Entry of an investor · Public funding (apply for/obtaining) · Funding application failure · Winning awards in innovation contests (monetary) 	<ul style="list-style-type: none"> · Allowed a new product development (NPD) / acquisition of marketing competencies / more time to think strategically / changes in strategy · Accelerated the NPD process · Forced to analyse data and plan · Forced to rethink the product range · Allowed longer NPD cycle / attracted media attention / marketing research – validation of the judges

Accordingly, the analysis of the marketing decision making process and its antecedents and consequences is based on a total 146 incidents with marketing implications, distributed over eight categories, as depicted in Table 8.5.

Table 8.5. Distribution of the categories of analyzed incidents with marketing implications

Categories	n	%
New product development and introduction	40	27.4
Sales and commercial approach	33	22.6
Promotion	20	13.7
Marketing strategy and planning	14	9.6
Human resources	11	7.5
Internationalization	10	6.8
Funding	10	6.8
Business strategy and operations	8	5.5
	146	100

The second structural dimension of incidents is their nature. This classification allows identifying whether these events can be considered decisions, in order to set the basis for the exploration of the entrepreneurial marketing decision making process and its related practices and conditions, which are detailed in the next sections. As stated earlier, we concluded that the incidents reported are either decisions in themselves, or triggers that lead to subsequent entrepreneurial decisions. Decisions are classified into these two categories: spontaneous and stimulated (Table 8.6.).

Our results reveal that while spontaneous decisions come directly from the entrepreneur or, sometimes, other members of the team's initiative, spontaneously and proactively, without any specific and immediately discernible stimulus and are directly identified by the interviewee; stimulated decisions are triggered by a critical event and explored as a subsequent reactive decision.

Table 8.6. Categorization of the incidents by nature

Categories	nr.	%
Spontaneous decisions	89	55.3
Stimulated	72	44.7
Total	161	100

Spontaneous decisions represent more than an half of the analyzed decisions of our sample (Table 8.7.). Two different types of spontaneous decisions can be distinguished: haphazard/emergent, which represent about 46% of this type, and planned decisions based on existing knowledge, allowing a certain degree of prediction and purposefulness (53.9%).

Table 8.7. Categories of spontaneous decisions (SpD)

Categories	nr.	% SpD	% of total	Examples
Haphazard/emergent	41	46.1	25.5	· Choice of a particular communication action based on personal preferences · Recruiting personnel according to a vision
Planned	48	53.9	29.8	· Decision about commercial strategy based on existing information about the issue / personal knowledge or experience
	89	100	55.3	

Results show that spontaneous haphazard/emergent decisions often result from internal and informal processes of idea generation, or from fortuitous, unsystematic observations that lead to new ideas and subsequent decisions. Therefore, it is not uncommon to identify in the interviewees' discourse expressions such as *I/we saw, though, had an idea*, as exemplified by the following transcripts:

«**We make brainstorming** exercises and, therefore, **we have several ideas** in the pipeline» (#15: Digital Technologies; B2B/B2C) {Emphasis added}.

«Several months ago, **I started to think** developing a new project. **I thought** I could make a product [description]. Now it is a commercial product and it is on the market» (#30: Digital Technologies; B2B/B2C) {Emphasis added}.

«**We saw** that children interact very well with tablets, and we started there... on what works well with children, and then **we sought** other things for that age group that could be translated for tablets» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

«We **had this idea**... We talked about the possibility, and **we asked ourselves** why not create our own [product name]? And it started like that...» (#31: Biotechnology; B2C/B2B) {Emphasis added}.

Spontaneous decisions may also result from an internal thinking process involving some degree of planning. This type of decisions is often rooted in the original business plan, developed normally during the pre-start-up phase of the company. These decisions have in common the fact that they are based on information, sometimes resulting from more structured analytical processes. The following transcripts illustrate some situations of this type:

«Since the **planning of the company**, we thought that the prescribers and influencers would be critical [...]. So, we stated in our business model that the main decision maker, the one that would help us achieving commercial success, would be the physician» (#7: Textiles; B2C) {Emphasis added}.

«This equipment was there [in the **business plan**] and what we did was to follow what we had **decided**» (#8: Geology; B2B/B2C) {Emphasis added}.

«Our strategy, from early 2011, changed based on some **benchmarking** that we did. We observed that some of our competitors at the European level were working with insurance companies, allowing putting the product in the market at a lower price and gaining scale» (#7: Textiles; B2C) {Emphasis added}.

In the case of decisions made to respond to a certain stimulus, we also distinguish two different categories: contingent, which are decisions that occurred in response to an identified, but contingent opportunity or challenge; and interaction responses, which are decisions that resulted from an interaction with others, generally involving suggestions made by qualified or experienced people (Table 8.8.).

Table 8.8. Categories of stimulated decisions (StD)

Categories	nr.	% StD	% of total	Examples
Contingent	33	45.8	20.5	· Technical trials too expensive, leading to a shift to a different application for the technology
Interaction response	39	54.2	24.2	· Choice of a particular communication action based on the suggestion of an investor · Internationalization opportunity offered by a customer
	72	100	44.7	

Stimulated decisions most probably would not be made if there had not been a contingency appealing to the entrepreneur’s alertness or an interaction awakening a possibility. The following transcripts present several examples of this type of decision triggers:

«He [development partner] **reached me** through a company that we both know. I went there, he presented me the idea, and **from there I started** to work on this project» (#30: Digital Technologies: B2B/B2C) {Emphasis added}.

«He [partner] **read an interview** about the organizer of the event and he sent to us saying “**we’ve got to be here**”» (#1: Textiles; B2C) {Emphasis added}.

«The opportunity to develop a completely different product arose from the **personal relationships** that the one of the business partners maintained. At that time, it was **almost accidental**. It was something that came to **define the future** of the company» (#5: Digital Technologies; B2B) {Emphasis added}.

Although these contingencies and interactions may be somehow accidental, sometimes they stimulate decisions later perceived as having had strategic impact on the way the company developed. For that reason, as suggested by the effectuation theory, we detected in our sample a fairly good openness to the new and unexpected, as the following transcript illustrates:

«We have to **be very open**... one thing that has been very important in my company is what **happens by chance** [...]. [Talking about two critical opportunities referred earlier] I would have never **planned** them, I would have never **thought about** them. This is common to every new technologies company; they don’t know where the market goes to...» (#30: Digital Technologies: B2B/B2C) {Emphasis added}.

It is interesting to note, however, that in face of events that call for unplanned decisions entrepreneurs often state that they «opted» (#19: Biotechnology; B2B) or «decided» (#20: Biotechnology; B2B; #21: Engineering; B2B/B2C), instead of referring that they were *obligated* to change direction or implement some unintended action. This indicates taking on responsibility for the course of action.

All 146 incidents, either marketing related or with marketing implications, described earlier could be classified as either spontaneous decisions or stimuli/triggers for subsequent exploration. For instance, when an interviewee reported the failure of an intended commercial partnership as critical, which was not a decision of the entrepreneur, rather a contingency, what was explored was the subsequent decision to establish his own commercial team and not looking for another partner, as an option. The next paragraphs detail the incidents, classified by type, in terms of the decisions they involved, and clarify this distinction.

8.2. New product development and introduction to the market

This category refers to incidents regarding research and development (R&D) related events, but also to decisions regarding product range and product/service launching. This is one of the most referred categories, accounting for about 25% of all considered incidents, showing that, for the participating knowledge-intensive and science-based new firms, new product development and market entry have an important impact on the way the company develops, as it would be expected.

The new product development and introduction to the market category includes incidents about: decisions on products/services initial portfolio, projects to develop new products, creation of partnerships to develop and introduce new products in the market, product or service idea validation or prototype testing, market the first product and strategic or technological changes in the company's offer. Table 8.9. shows how these categories are distributed by nature of decision. The stimulated category includes both the contingent and interaction response decision types for simplification purposes and to improve comparability with other categories.

Table 8.9. Sub-categories of New product development and introduction incidents by nature

Category	Sub-categories	Nature of decisions				%
		Haphazard/emergent	Planned	Stimulated	Total	
New product development and introduction (27.4% of total incidents)	Product/service range decisions	6	3	3	12	30.0
	Partnerships to develop or market new products	1	1	5	7	17.5
	NPD project	0	1	5	6	15.0
	Market of a new product	3	1	2	6	15.0
	Product/service validation	0	5	0	5	12.5
	Strategic or technological change in offer	0	1	3	4	10.0
	Total	10	12	18	40	100

Product or service range decisions, referring to the new company's offer portfolio, are the most frequently referred events, within this category, reported as having had a relevant impact in the way the company or entrepreneurial project has developed. These decisions include, for instance, adding products to the portfolio of a service-oriented company or, conversely, adding services to a product-based firm. The large majority of the studied companies began their activity with a very narrow offer, or even a single product or service, increasing the options to the market in a subsequent phase, normally to expand their chances of making sales and financially sustain the new entrepreneurial project, to later return to a more focused approach. This pattern is explored in more detail in the next section, describing entrepreneurial marketing activities. The product/service range decisions mainly refer to this second stage of portfolio development. Also included in product range decisions are the incorporation of the same type of products, but based on new technologies, and development of new business areas.

Most of these decisions are haphazard/emergent, i.e., they are implemented following the ideas and unplanned initiative of the entrepreneur or his/her team members. Although with less expression, the sample studied also presented product range decisions planned in advance. Alongside with spontaneous decisions are stimulated decisions, either by contingencies or by interactions. In fact, it is not unusual in our sample that suggestions for development and commercialization of new products come from outside contacts and R&D partners.

It is interesting to note that only one out of the five analyzed critical decisions regarding taking the first product to the market was planned. In fact, one may expect that at least the first product or service to be introduced in the market would be defined in advance with a certain level of structured planning. However, we observed that, in the situations studied, these decisions resulted either from ideas generated in a haphazard way, developed with minimum costs and tested in the market right away, without any preceding analytical process, or as a result of contingencies and interactions. A possible explanation for this is that, for the participating companies, the importance of launching the first product is not so much about obtaining interesting sales results as it is about learning with the first adopters, adjusting the product configuration, or showcasing the company's capabilities. For this purpose, a longer process of data analysis and planning might not be beneficial, and may even delay the process too much. In fact, as it will be explained ahead in more detail, products and services are often used as testing tools for the market needs. Therefore, when talking about the decision of marketing the first product, participants used words such as *understood*, *realized*, *assess*, as illustrated hereafter:

«We **understood** that it is much more difficult than it seems [launching a product]. That's when we **realized** that it is not by chance that companies generally start by providing services, for several years, and only later launch products» (#15: Digital Technologies; B2B/B2C) {Emphasis added}.

«[The first product launching] allowed us **assessing** the product acceptance and identifying the kind of other products that could be launched» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

We cannot exclude, obviously, that there are other decisions of launching the first product that may have been planned, but the point worthy of note is that participants did not consider them as critical as the ones referred and, thus, those were not accounted for.

8.3. Sales and commercial approach

This category refers to events related to decisions on ways to reach the market and actions to implement them with immediate gains or resulting in potential for the future. It includes the acquisition of customers that are considered very important for the new company; decisions about commercial approaches and channels to connect with the market; partnerships established under the same premise; actions to explore the market and identify prospects and spontaneous contacts from

the market resulting in subsequent decisions about whether or not to serve them. The distribution of these incidents is shown in Table 8.10.

Table 8.10. Sub-categories of Sales and commercial approach incidents by nature

Category	Sub-categories	Nature of decisions				%
		Haphazard/emergent	Planned	Stimulated	Total	
Sales and commercial approach (22.6% of total incidents)	Strategic or very important customer acquisition	1	4	7	12	36.4
	Commercial partnerships	1	3	3	7	21.2
	Commercial approaches and channel decisions	1	2	3	6	18.2
	Sales prospecting actions	2	2	1	5	14.2
	Spontaneous contacts from customers	0	0	3	3	9.1
	Total	5	11	18	33	100

This is the second most referred category. As in the previous one, knowledge intensive and science and technology-based start-ups find here several important events that not only serve short term financial needs but also set potential for future. In addition, the first commercial actions are opportunities to assess the market's acceptance for the offer.

Strategic or very important customers may have critical impact on the way start-ups evolve, either due to financial aspect of their purchases, or to their word-of-mouth potential and credibility effect. In the sample studied, reaching and acquiring this type of customers can result often from casual indications of others that can suggest the contact or even establish the link between them and the start-up, or other contingencies. For example, when talking about a very big project that the company won, following a personal contact, which boosted, not only the new venture's financial situation, but also its reputation and credibility, an entrepreneur asserted that:

«I like things when **they happen naturally**. This is one more thing that happened this way. Our R&D director **knew someone that was connected** to [company promoting the project] [...] and he said to me: 'look, maybe we should talk to him. Don't you want to set a meeting?' I agreed and when we arrived there we were astonished with the project, we had no idea what we were getting into. But, even competing

with global companies, we won the project [...]. **This was a casual thing**» (#26: Digital Technologies; B2B) {Emphasis added}.

However, four of these strategic acquisitions were also planned, showing that some entrepreneurs understand the relevance of this type of customers. In the sample studied, this strategic decisions were made either by entrepreneurs with marketing formal education/training, such as MBA's, or by entrepreneurs with previous experience in the same business, with competency marketing. One of the interviewed entrepreneurs reported that his company targeted specifically a very prominent customer to use as a future sales tool. He said:

«Given the importance of the client, it was a very important **reference**... every time we make a presentation, this client is **the case that we show**» (#5: Digital Technologies; B2B) {Emphasis added}.

Another interviewee highlights the importance of a high profile customer acquisition by saying:

«From this point on, nobody would be able to question us and our capabilities» (#4: Digital Technologies; B2B).

Regarding the commercial approach and channel choices, this includes deciding whether to internalize a sales team or to outsource the sales function and further changes to those decisions, so as to adjust to market dynamics. This category also includes contact with intermediaries, channels choice and changes in such decisions.

Another sub-category relates to the establishment of commercial partnerships. That includes partnering with incumbent firms in order to benefit from their commercial structure, deciding to represent an existing brand, taking advantage from their commercial know-how and partnering with complementary services to facilitate access to the market. It also includes incidents that forced rethinking the commercial approach, such as partnerships that failed to accomplish the objectives underlying their establishment.

Included in this category are also market prospection actions, which include using unconventional ways to identify prospects, such as job offer platforms, events in which prospects can be easily identified and even tested for fitness with the purpose and vision of the new company, and applying a particular prospecting methodology .

Spontaneous contacts from customers happened in the sample studied, after the company had made some awareness generating actions, by word-of-mouth or when the researcher behind the company was the intended target of the contact.

8.4. Promotion

This category refers to events that are related to brand communication actions. The in-existent awareness that characterizes the starting point of new ventures imposes a huge barrier to overcome. Communicating frequently and in a consistent manner with customers, demands resources, which small companies cannot afford. Several participants recognized this as a big challenge and, therefore, niche communications and low cost strategies tend to be preferred. Table 8.11. presents the distribution of incidents within this category.

Table 8.11. Sub-categories of Promotion incidents by nature

Category	Sub-categories	Nature of decisions				%
		Haphazard/ emergent	Planned	Stimu- lated	Total	
Promotion (13.7% of total incidents)	Event	3	2	7	12	60.0
	Internet	2	1	0	3	15.0
	Awards	1	0	1	2	10.0
	Mass media	0	1	0	1	5.0
	Others	2	0	0	2	10.0
	Total	8	4	8	20	100

Given the fact that a start-up has a huge lack of brand awareness, it was interesting to note that marketing communication incidents, that is, impacting decisions that resulted in actions having the specific effect of passing across the value proposition message, are only the third most referred category. There can be several explanations for this. Firstly, confirming previous literature, entrepreneurial marketing tends to privilege the direct relationships and interactive marketing (Zontanos & Anderson, 2004; Stokes, 2000a; Chaston, 1997a), which can be achieved through sales

contacts, considered in the previous topic. Secondly, as it will be explained in more detail in Section 9, regarding the proposed Entrepreneurial marketing framework, product and service are, themselves, important communication tools. This means that the first two categories of incidents encompass several marketing communication effects.

The second interesting observation is that there is a great disparity within the sub-categories. In fact, participation in events receives an overwhelming focus. Again, it cannot be concluded that other communication actions are not made, only that the referred ones had enough impact to be identified as critical. Events can be of very different sorts and the participation in them is also diverse. Events signalled by participants are either of a more professional nature, such as conferences and trade fairs or recreational, namely festivals. In some cases, studied start-ups use the affordable loss principle towards these participations, not investing money directly, but sponsoring the events with services. In other cases, the event is promoted by the very company, which raises the risk of losses in the case results are not satisfactory. These more investment demanding actions are related to planned decisions, while the majority of decisions regarding events requiring only a minimal participation cost result either from emergent initiatives or from suggestions or invitations of others, triggering an opportunity that otherwise would not be considered. When investment needed is low, the interviewed entrepreneurs do not usually make a very detailed assessment regarding the potential opportunity.

Internet related actions considered relevant in the way the business developed refer to the company website or online communication campaigns, which are often considered attractive due to their wide reach and low cost.

Awards are considered in the marketing communication category, since some entrepreneurs highlighted the awareness generation and credibility effect that they brought. However the decision to apply for these awards was not planned, that is, it did not target that goal and this effect was only subsequently identified. The results were very good but were not expected. Another effect the awards offer is the possibility to validate the idea with experts, which constitute a creative way to implement market research.

Mass media marketing communication was indicated by just one entrepreneur. The action was planned and decided according to the managerial perspective. During the interview exploration

some hints pointed to the fact that entrepreneur holding a management degree may have contributed to that particular choice.

8.5. Marketing planning and strategy

This category refers to events that are related to incidents that involved shifting the focus of the new venture, either in terms of its market or product application. Are also included here incidents regarding planning (Table 8.12.)

Table 8.12. Sub-categories of Marketing planning and strategy incidents by nature

Category	Sub-categories	Nature of decisions				%
		Haphazard/ emergent	Planned	Stimu- lated	Total	
Marketing planning and strategy (9.6% of total incidents)	Product/market strategy	3	3	6	12	84.6
	Planning	0	2	0	2	9.4
	Total	3	5	6	14	100

Changes in product/market strategy in our sample are both spontaneous and stimulated. Spontaneous decisions that affect the market strategy occur, for instance, when entrepreneurs decide changing the target market initially defined or redirecting for an area with which they feel closer in terms of personal preferences or information availability. This type of decisions starts to be more planned in a subsequent phase of the firm's development. In our sample, we identified that, in some cases, when the firm starts to enter a more stable phase, entrepreneurs may strategically decide to abandon a particular product or segment and focus on more profitable ones. Strategic marketing changes may be stimulated by some event, such as a failed approach to a particular market.

An interesting result obtained from the studied sample is that strategic choices about what, in managerial marketing, would be called segmentation-targeting-positioning, come later in the process of establishing the business activity and not at the beginning. That is, start-ups often start with a fairly rough idea of what they can offer and what the market is willing to accept and, through a more or less

experimental adaptation, they come to find their best fitting. That is when entrepreneurs, armed with instrumental information and experience, make truly strategic decisions. These changes in the decision process are discussed in more detail in the next section, dedicated to the description of entrepreneurial marketing activities of participating companies.

Concerning incidents related to marketing planning, both of them represent the completion of a formal business plan, including strategic marketing choices and marketing activities, although with two very distinct effects. In one case, the plan is considered of utmost importance and is the guide of all company's current decisions and activities, including marketing, having set the strategic path. In the other case, since the plan was not followed, it sets a milestone for the decision of not planning anymore.

8.6. Internationalization

Internationalization incidents refer to situations of selling abroad. It is interesting to note that internationalization related incidents represent only a very small part of the incidents reported, since this is often regarded as a process in which the type of companies comprising the sample usually engage early (Andersson & Wictor, 2003; Crick & Jones, 2000). It may be observed that only 6.8% of the incidents pertain to this category (Table 8.13.).

Table 8.13. Category Internationalization incidents by nature

Category	Nature of decisions				%
	Haphazard/ emergent	Planned	Stimu- lated	Total	
Internationalization (6.8% of total incidents)	2	3	5	10	100
Total	2	3	5	10	100

One possible explanation for the low prevalence of internationalization-related incidents may be the fact that some highly knowledge-intensive ventures rather adopt a geographically focused strategy in order to prevent knowledge diffusion and loss of control (Baum, Schwens & Kabst, 2011). Another explanation found in the sample studied is that these firms are still acquiring domestic

experience, testing marketing strategies and fine tuning the offer, before tackling the bigger market. This experimental approach is indicated by one of the interviewed entrepreneurs, who stated that:

«From inception we knew that Portugal would be a **test market** [...]. Since the beginning, we knew that the product had two or three aspects that are important: first, it has added value, it is innovative and it is a product that travels well and, therefore, we immediately knew that only through international markets we would achieve success. However, we wanted to test the models, such as **communication models** and **commercial models**, to do **trials at the product level**, to **test the information** associated to the product, we also wanted to **validate** it with the (influencers). We wanted to be prepared to be able to present this product accurately in foreign markets» (#7: Textiles; B2C). {Emphasis added}

Another possible explanation might be related to the fact that, for some studied companies, internationalization is such a natural process that selling to foreign customers is no different from selling to domestic customers; therefore, the internationalization moment might not even be seen as a critical incident. In fact, during the pilot interviews, we were able to identify that perspective in some cases. For instance, when asked about how he decided to internationalize, an entrepreneur responded by saying:

«We never decided that because we never thought about our company in any other way. The company's vocation is global. We could never make it work on a national basis. If we had that idea of "let's see how the domestic market works and then we go out", we would fail» (#02: Biotechnology; B2B).

Similarly to some other decisions regarding selling domestically, only a small part of the internationalization decisions are planned. Instead, they occur either due to an emergent decision with no detailed and analytical process involved or strategic objectives in mind, or they result from some stimuli, either contingencies or interactions. In this regard, an interviewee describes his decision of introducing his company's services in France as casual but very effective. He reports that:

«I knew a person that was going to France to work in an area that had nothing to do with [the company's services] [...]. I talked to him, and showed him our product; I prepared him a presentation, the portfolio and asked him to **try to find a market for it in there**. His work opportunity eventually went wrong and he decided to be totally dedicated to our company and now he is our director there [...]. It was France, because this person was going to France, otherwise it could be any other market» (#34: Digital Technologies; B2B) {Emphasis added}.

The following transcript also exemplifies the importance of contingency and interactions to business development. When talking about the invitation that the venture received to integrate the capital of a new international company created by a regular customer, one CEO claims that:

«I don't consider an important development at the marketing level because it was basically pure luck. This has much more to do with relationships than with our ability to promote a presence in foreign markets (#16: Digital Technologies; B2B).

A planned decision of internationalization may also be linked, in practice, to a fairly unstructured implementation process. The three planned internationalization decisions reported in the study refer to a previous definition of an intention to internationalize, set in the company's plan, that was further achieved thanks to the entrepreneur's informal network or professional partners, always having the intention of minimizing losses in case of the process failure.

As indicated previously, some incidents related to different functional areas are also considered in this analysis due to their strong implications for marketing. The following topics describe these incidents.

8.7. Human resources

Human capital of new companies has been proved to have an important impact on business development and success (Unger, Rauch, Frese & Rosenbusch, 2011; Peña, 2002). As presented earlier, participants indicated 20 incidents within this category. After considering their direct marketing implications, 11 of these incidents are analyzed. They are divided almost equally between decisions to attend training programs that included a marketing component and decisions regarding the team constitution and further changes, as presented in Table 8.14.

Table 8.14. Sub-categories of Human resources incidents by nature

Category	Sub-categories	Nature of decisions				%
		Haphazard/ emergent	Planned	Stimu- lated	Total	
Human resources (7.5% of total incidents)	Training	1	0	5	6	54.5
	Team	3	2	0	5	45.5
	Total	4	2	5	11	100

Regarding training programs, all incidents reported consisted of short capacitation programs, included in entrepreneurship programs. The most relevant implications to marketing are related to being able to acquire information on the markets and competition, to develop a basic plan, but also to make early concept tests and refine the business idea. Another important benefit that some participants profited from these programs is the possibility of getting access to mentors who can provide support in several areas, including marketing. Other less expected implication is being able to find prospects among participants.

It is worth noting that most of these decisions were influenced by others that suggested these programs to entrepreneurs, thus activating their willing to acquire capabilities outside their technical expertise and even to nurture the idea of creating a business. As one interviewee recounts:

«Since I started as a research fellow, I wanted to do investigation, I liked to do investigation, I didn't have in mind to create a company. That happened because my supervisor at the time encouraged us to participate [in the program] to have other kind of experience, to have another vision...» (#29: Engineering; B2B).

Other participants in these programs had already a previous willingness to acquire managerial capacities; thus, when the right opportunity arose, it was a made decision, as an interviewed entrepreneur confirms:

«We already knew [program name], we have been volunteers in their actions, and this edition was designed for the life sciences, so it was a logic step [to attend the program]» (#41: Digital Technologies; B2B).

Having the right team, with the right combination of capacities and features, or being able to reinforce it allowing strengthening certain areas, is also indicated as having a critical impact. This result is consistent with literature showing the importance for new firms of the founders' knowledge, competence and skills (e.g. Colombo & Grilli, 2010, 2005; Chandler & Jansen, 1992). Particularly, being able to put together a cohesive team, aligned with the same vision and values, and being able to acquire particular capabilities through people, also helps conveying an important message to the market.

8.8. Funding

This category refers to events that are related to being able or not to attract funding for the new business, either through public programs, venture capital and business angels, or through monetary prizes (Table 8.15.).

Table 8.15. Sub-categories of Funding incidents by nature

Category	Nature of decisions				%
	Haphazard/emergent	Planned	Stimulated	Total	
Funding (6.8% of total incidents)	3	4	3	10	100
Total	3	4	3	10	100

Several important marketing implications of these incidents can be derived, which justified their inclusion in the analysis. First of all, especially for science-based companies, some products would not come into existence if there was no funding to develop them. Although we identified, in some cases, a clear preference for self-funding, particularly by launching mainstream products or services that generate regular revenues, in other cases businesses could not take off without a considerable amount of funding from external sources. This is the case of businesses that needed to develop prototypes or needed expensive productive resources. Although funding is not always needed for that purpose, as suggests the low incidence of this category of incidents, in some cases it was an essential condition of the new product development process. Other implications for the marketing decision process are also the ability to internalize marketing competency brought by investors, namely business angels. This result is aligned with previous suggestions that investors act not only as potential successes' selectors but also as coaches, incorporating knowledge in the firm (Baum & Silverman, 2004). Additionally, there is previous evidence that venture capital funding has positive impacts on new firms that go beyond finance. Generally, investors also motivate the professionalization of the firm and, in some cases, this involves reinforcing the marketing area (Hellmann & Puri, 2002).

Participating entrepreneurs' decisions to apply for public funding and attract investors were, in this study, aligned with a more planned approach, since it was necessary to better structure the idea

and the consequences were fairly anticipated. The process was usually longer than when deciding to apply for an award with a monetary prize, for which sometimes the real effects were only acknowledged after winning it.

Marketing consequences of obtaining funding are relevant, as are also the consequences of not being able to obtain it. In one of the situations collected, the entrepreneur faced the contingency of having to rethink the whole business idea, including the offers portfolio, as a result of a failed application to funding. This corroborates the need for flexibility of new firms to be able to adapt to critical situations. This was one of the few cases when the entrepreneur categorized the incident as very negative. She felt very disheartened and the subsequent actions to compensate for that incident lead to decisions that the entrepreneur considered to have made the company lose some of its identity.

8.9. Business strategy and operations

This category refers to events that are related to changes in the initially envisioned business model, but also to decisions regarding physical resources, such as changing facilities and acquiring new equipment. It also includes tight partnerships representing a strategic shift in business (Table 8.16.).

Table 8.16. Sub-categories of Business strategy and operations incidents by nature

Category	Sub-categories	Nature of decisions				%
		Haphazard/ emergent	Planned	Stimu- lated	Total	
Business strategy and operations (5.5% of total incidents)	Business model	0	1	2	3	37.5
	Physical resources	1	2	0	3	37.5
	Strategic partnerships	0	0	2	2	25.0
	Total	1	3	4	8	100

Concerning the definition and changes in the business model, in the sample studied, two incidents resulted from either a contingency or an interaction and one other was planned. The contingency that changed the whole pre-conception of the business that participated in our research was a partnership that did not result positively. Whilst partnerships are important resources for start-ups to add value to the chain without the risk and costs associated with high initial investments to vertically integrate more steps (Larson, 1991), they also present risks in themselves. Not only entrepreneurs can develop an over-trust bias, which means committing in partnerships more than an objective assessment of the situation would suggest (Ye, Fitzsimmons & Douglas, 2008), but also be left in the lurch in case of these partnerships fail. This was the situation that forced one of the studied companies to rethink the whole strategy and also the operational structure. This included having to internalize both production and commercial functions, demanding a great deal of marketing competency that was not initially considered. The entrepreneur reported that consequence of the failed partnership as follows:

«That strategy [with the partner] would relieve from us from the responsibility of the commercial activity. We would be just a services provider, considering that the commercial function is the most complicated for us, and I think, for every company [...]. But as the negotiation failed, we had to set out to produce [the main product] and sell it» (#10: Engineering; B2B).

Also at a very early stage, an interaction with a team of innovation specialists made another studied company change its whole commercial model. The meeting between the company and that team was completely fortuitous, but it was determinant for the future development of the business. They crossed paths in a business centre and the experts started to work with the new venture just for the sake of willing to help. However, they created strong empathy and decided to continue working together, which resulted in a profound strategic change. In this case, the personal affection played an interesting role, showing that, concerning start-ups, emotions also run the business. One of the interviewed entrepreneurs stated that:

«In that case, there was a chemistry from the beginning [...] this resulted in wanting to work together and develop the business» (#22: Business Services; B2B).

Concerning the incidents relating to physical resources, they refer to facilities and equipment. Changing facilities can impact new ventures for different reasons. Choosing a business centre, for instance, is referred as having benefits at the awareness level and changing for improved facilities is important for the company's image. Equipment acquisition may also open new markets. In some

cases, whether or not to target a particular segment is not as much a matter of assessing its attractiveness as it is of assessing the affordability of the tools to develop segment-specific solutions. For this reason, being able to acquire particular equipment may help opening a whole new market perspective.

8.10. Section summary

In this section, we present a description of the critical incidents obtained through the CIT study. After identifying which critical incidents represented marketing decisions or events leading to a marketing decision, they were categorized according to their functional type and the nature of the decision involved.

As for the functional type, the usable critical incidents were distributed by the following categories: a) New product development and introduction; b) Sales and commercial approach; c) Promotion; d) Marketing strategy and planning; e) Human resources; f) Internationalization; g) Funding; and i) Business strategy and operations. The first two categories are the most expressive, representing 50% of the total decisions.

Regarding the nature of the decisions, they were classified in two categories. The first refers to spontaneous decisions, meaning that they result directly from the entrepreneur's or other members of the team's initiative, spontaneously and proactively, without any discernible stimulus. Two different types of spontaneous decisions can be distinguished: haphazard/emergent and planned. The second category is stimulated decisions, which are triggered by an external event. Those triggers may be some type of contingency or an interaction.

Throughout this section, events pinpointed by entrepreneurs as having impacted the way their businesses evolved were described and related to the nature of the associated decisions. Results offer insights and set the basis to explore the entrepreneurial marketing decision making process, how it unfolds and why it is shaped differently from the managerial marketing decision process. Before such exploration, the entrepreneurial marketing process, as it emerged in our study, is described over the next section.

9. Entrepreneurial marketing framework (what)

Marketing practices, relating to the 146 analyzed decisions, were explored in order to identify characteristics allowing categorizing them as entrepreneurial or managerial. This analysis is grounded on previous literature on entrepreneurial marketing (e.g.: Jones, Suoranta & Rowley, 2013; Mort, Weerawardena & Liesch, 2012; O'Dwyer, Gilmore & Carson, 2009; Hills, Hultman & Miles, 2008; Gruber, 2004; Zontanos & Anderson, 2004; Morris, Schindehutte & LaForge, 2002; Stokes, 2000a, among others). Other discovered features, not described previously, but showing coherence with the entrepreneurial marketing descriptions, are also proposed.

Research Proposition 1 establishes that entrepreneurial marketing follows a process that differs from managerial marketing, although some managerial marketing practices can also be implemented by entrepreneurs. The present section explores this proposition and proposes an entrepreneurial marketing framework.

In order to develop such a framework, the marketing practices performed by the interviewed entrepreneurs were systematized and compared with reference textbooks, such as the ones of Kotler and Armstrong (2010), Kotler et al. (2009) and Kotler et al. (2008). This approach was also used in previous entrepreneurial marketing studies (e.g. Hills, Hultman & Miles, 2008; Stokes, 2000b).

The entrepreneurial marketing framework that emerged from our study takes on the following form: product development – product-market fit – market expansion – refocus. Results suggest that this process may be followed by managerial marketing practices, which can also be concomitant, if circumstances allow it. The process is not sequential, on the contrary, it is very dynamic and requires several iterations until both the offer and the market reach a more mature state. The entrepreneurial marketing framework as emerged from our study and a comparative managerial marketing framework based on a reference textbook are represented in Figure 9.1.

The entrepreneurial marketing framework is detailed throughout the section. Comparisons with managerial marketing practices are made whenever appropriate to clarify the distinctions. Consistencies between marketing practices and their underlying decision making logics, referring to effectuation theory, are also identified in order to explore the research proposition 2, which establishes

that marketing practices implemented by entrepreneurs are influenced by their decision making logics.

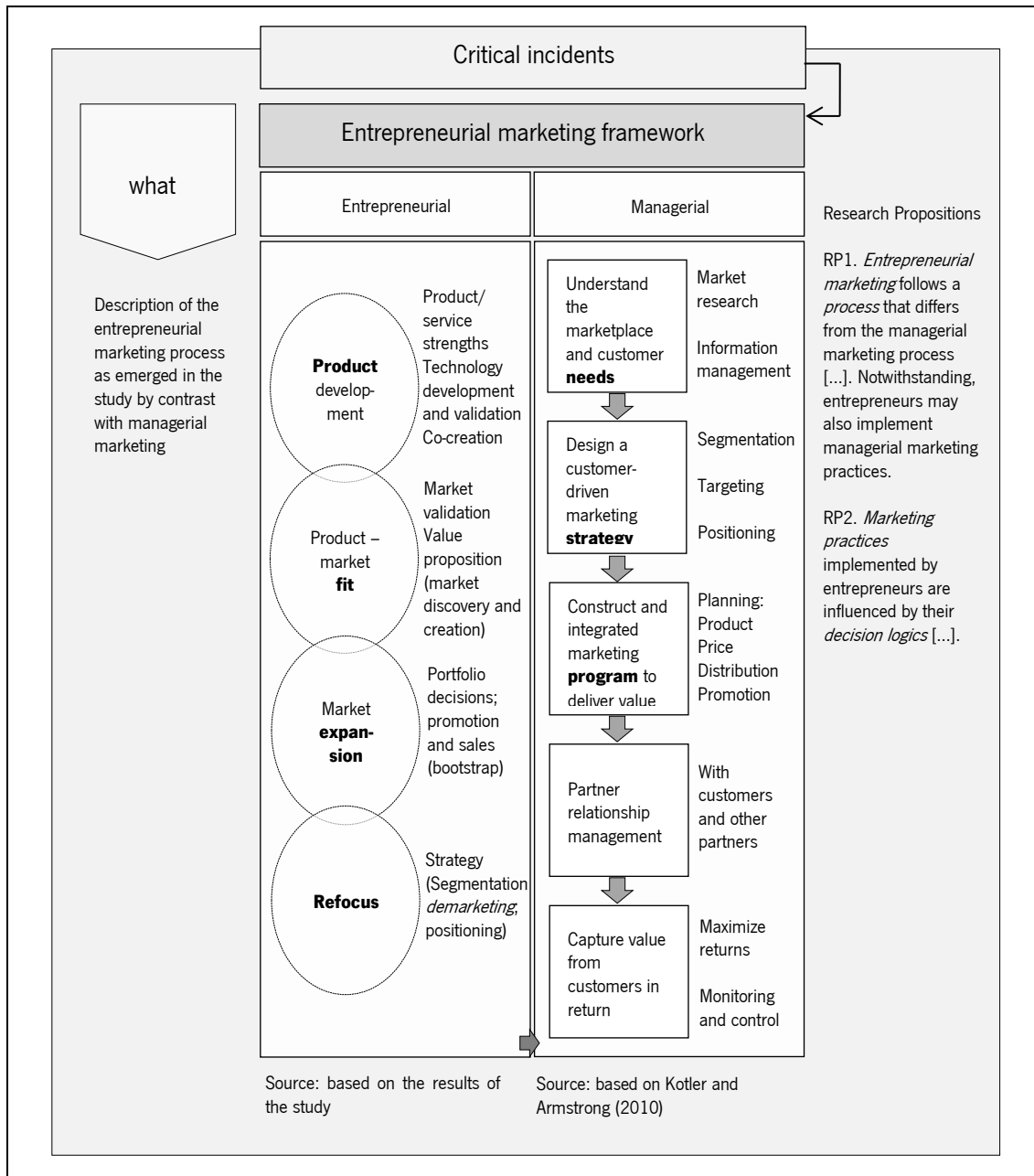


Figure 9.1. Entrepreneurial vs. managerial marketing framework exploration

9.1. Product development versus needs satisfaction

The results of the study show that the marketing process of new ventures often begins previously to the creation of the company, when a product or service is invented or envisioned. In none of the cases studied, the idea for the new product or service, which gave rise to the new company, was rooted in market research to find unmet needs. On the contrary, ideas arose from different sources, such as: internal idea generation; as a result of a R&D discovery; informal observation of the world; informal conversations with different people; and even personal needs felt by the entrepreneurs, which is consistent with the idea of user entrepreneurship (Shah & Tripsas, 2007). Several interviewees' transcripts convey such ideation process:

«We weren't looking for needs; we were **looking for ideas...**» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

«This was an idea that we already had for many years, since the time we were students and we **felt the need** for a solution like that» (#15: Digital Technologies; B2B/B2C) {Emphasis added}.

«The idea started two years before creating the company, with a **research project**» (#9: Textiles: B2C) {Emphasis added}.

«I'll eventually finish my **master thesis**, and the result will be a **marketable product**» (#32: Digital Technologies; B2B/B2C) {Emphasis added}.

«I talk to lots of people. In the process things come up and **there are many influences**. Like people saying to me "have you ever considered doing this or that?" That's how many of our ideas are born» (#18: Textiles; B2C/B2B) {Emphasis added}.

Thus, while the managerial marketing process starts with the focus on discovering and understanding the market needs and behaviour (Kotler & Armstrong, 2010), entrepreneurial marketing in our sample is originally sustained on execution capabilities to develop a solution for a not yet completely known market. The ignition point for the marketing process is the product strengths, laid on know-how or technology, as opposed to market needs.

In particular the science-based start-ups participating in the study were highly focused on research and their marketing process generally followed a technology-push instead of a need-pull approach (Zmud, 1984; Freeman, 1979). We noticed that available funds are usually channelled to developing, prototyping and patenting new products and only subsequently the products are tested in

the market. If accepted, they are made available; if not, they are kept inside and maybe used for academic purposes. Within this frame of mind, the main criterion to decide to launch a new product is being able to produce it, which requires assessing the needed capabilities, equipment and funding. We found that science-based companies, in particular, often have plenty of these resources, resulting from public funding for research projects. However, only a few entrepreneurs denoted a concern about another criterion that must be observed, which is being able to sell the products with a profit. This is important, since new products, particularly the ones with high levels of innovation, may be expensive to produce and markets could be too small to explore economies of scale. Additionally, the value that the customer ascribes to the product is difficult to anticipate. Sometimes, when resources for research are available and companies have investigation in their genesis, they may be stuck in the process of product development without being able to make the next step of bringing it to the market. The following transcript illustrates this focus on technology:

«We focus heavily on research [...]. We work intensively on new product development and new ideas generation. We have several ongoing projects, based on public funding. The product is developed [...], and we made a prototype within those projects [...]. But we reached a point where we have a prototype, and now what? How to put it into the market? [...]. If I can produce and sell it with profit, I release the product. If not, it remains at the research level only. It generates some scientific papers but it stays there [...].» (#9; Textiles, B2C).

Results of our study suggest that when the start-up has resources available, either in terms of people, know-how, technology and financial, allowing focusing on product development, this situation may, in fact, hinder the successful transition of the product to the market, as there is less incentive to anticipate market responsiveness. On the contrary, when the new firm lacks resources, including specific know-how to convert technology into products, it may allow adjusting to the market sooner, as partnerships are sought to fill in the blanks. These partnerships often involve prospects in the process of product development, in a logic of co-production (Etgar, 2008). Therefore, a new product may be designed with a future customer to specifically meet his/her needs and then explored in a broader market with some adaptations in the process but tending to standardization.

In that sense, the first customer is very important since he/she is often a R&D partner. Partnering with prospects offers new ventures important inputs to conduct product development in alignment with market specifications and requisites. The resulting know-how is, then, internalized and later capitalized in larger markets. The following transcripts illustrate such an idea:

«It was a huge **learning process**... the product was developed **with the customer**, allowing it to **evolve** a great deal. This was the **biggest impact** of our decision (of producing in partnership with a prospect)» (#5: Digital Technologies; B2B) {Emphasis added}.

«I have a new area of **products and services** [...] that resulted from a project that was proposed to me by a surgeon [...]. We **developed it together**, he gave me **inputs**, including physical resources, and know-how... so that **I know now very well what a surgeon's needs** are in this area» (#30: Digital Technologies: B2B/B2C) {Emphasis added}.

«**We work closely** with the physicians at the hospital where we tested the solution throughout the investigation process and they give us **feedback**. We have an agreement with the same hospital for developing other solutions according to their needs that will be made available for the whole market in the future» (#10: Engineering; B2B) {Emphasis added}.

At the starting point, even before confirming the relevance of the need to be addressed, entrepreneurs in our sample are focused on making the technical validation of the business offer. This research may begin before the company is created and the service or product is well defined. There are several ways to validate the idea, such as the contact with privileged informants and technical experts. Results show that, sometimes, external validation helped the promoters' idea making sense, as expressed by one of the interviewees, quoted below:

«We had good feedback from who was on the other side [experts]. They recognized that what we did had value and we could meet real needs [...]. That alerted us to the possibility that our idea could **make sense** and that what we liked so much to do could turn into a professional work in the future. At that point we had that validation, which motivated us more to create a business, since each of us already had that will» (#22: Business Services; B2B) {Emphasis added}.

According to our findings, both proof of concept and technical validation, particularly if they can be done directly with prospects, offer several advantages. Firstly, the new company gets to verify in practice its assumptions in terms of both market requisites for its products and operational feasibility. Secondly, it converts a prospect into an actual customer, which contributes to acquiring credibility that supports future market approaches. Thirdly, it can help accessing industry information otherwise difficult or even impossible to obtain. This is particularly relevant for very innovative products or business areas, not yet studied, for which there are no references and when confidentiality is important. And, finally, these tests can be undertaken with lower costs and shared risks with prospects/partners in case of product failure, which is consistent with the effectuation principles of focusing on partnerships and affordable loss (Dew et al., 2009b; Sarasvathy & Dew,

2008; Sarasvathy, 2001). Lack of resources, which is one of the characteristics of start-up companies (Hills, Hultman & Miles, 2008; Gruber, 2004; Gilmore, Carson & Grant, 2001), can, thus, be bypassed, while also creating bridges to the market. The following excerpt illustrates this idea:

«Each test of our equipment has a very high cost and this [partnership with prospect client] is a way to overcome our lack of resources» (#23: Digital Technologies; B2B)

Product tests made with prospects can be implemented through partnerships established upon the promise of advantageous conditions in product acquisition in the future. Customers become R&D partners in these circumstances, as a part of the co-production process mentioned above. In this sense, the R&D activity and the market research activity become tangled, allowing the product development and market development to happen simultaneously. Depending on the business and product type, this can be done in a more hands on approach manner, involving industrial testing with customers, for instance, or can be as informal as being able to establish sporadic contacts with prospects just to ask for opinions about the business idea or product, as conveyed by the following quote:

«The product is still being developed. At this moment we are in the process of customer development, of searching and talking with people. Next month I am going to make a kind of a tour to speak to all the [prospects type] that I can [...]. This works well, because as we talk to people our idea changes [...]. At the end of the tour, I expect to return here and say: 'hey, guys, we need to make it all new'» (#13: Digital Technologies; B2B).

Cooperating with customers to develop a product has also some costs. Among them is the fact that the product may be too closely adapted to one single customer, involving ulterior needs for standardization, as one interviewee recognized:

«Sometimes, when we are creating a product with someone, it sticks too much to the specificities of that customer. We have to know to say no to some things and think more in terms of what is general. Maybe we went a bit further and now we have to recede in some features to obtain a more stable and adaptable product to several types of customers» (#5: Digital Technologies; B2B).

Even taking alteration costs into consideration, the learning process associated to collaborating with prospects or customers was considered very positive by several interviewees. Moreover, subsequent adaptations to the product to fit the needs of other customers are regarded by some entrepreneurs as important to enable the product to evolve towards its optimal form. Each new customer that wants new product features and adjustments contributes with relevant inputs. At the

end of a certain time, after compiling all the updates, the company obtains a fairly generic product that is pretty adaptable to all the needs of the same kind of customers.

In that sense, what the new companies' offer comes to be results, in part, from whom they cooperate with and who are their first customers. The participating companies' process of deciding the offer configuration relies, to a great extent, on this type of more pragmatic and immediate criteria instead of on extensive market analysis. At the same time, as it was mentioned before, decisions are made based on the new venture's capabilities. Often the technical capabilities of the initial team determine the products to be developed, and, consequently, the type of customers and development partners. This is consistent with the effectuation principle that holds that entrepreneurs begin with a given set of means, namely *who they are*, *what they know*, and *whom they know*, which shape what the business will be in the future as opposed to future goals' definition (Sarasvathy & Dew; 2005; Sarasvathy, 2001), as portrayed below:

«We intuitively know what we do well and what we don't know how to do. If someone asks me to do something that I don't know how to do, I assess if I can learn it and, if not, I reject the job» (#15: Digital Technologies; B2B/B2C).

Another important capability influencing the offer to be first made available to the market is marketing proficiency. In some cases, product development decisions are made based on what entrepreneurs perceive as being the most easily transferable for market offer. We detected several examples of product decisions based, not on what would be the better expected return, not even on what would be the preference of the entrepreneur, but on what is seen as less difficult to commercialize. This is common, for instance, among the informatics companies analyzed. They typically start by developing software for other business, generally on demand and tailored. Later, some companies decide to develop products, such as branded internet projects or mobile applications to sell either to the business or the consumer markets. It was possible to note a preference for such products, which allow a bigger creative freedom, but the difficulty involved in transferring these products to the market is also acknowledged, as the following excerpt shows:

«We understood that it [launching a product] is much more difficult than it seems. That's when we realized that it isn't by chance that software companies generally start by providing services, for some years, and only later launch products» (#15: Digital Technologies; B2B/B2C).

Cooperation with prospects and other partners in the initial process of product development is considered critical by several interviewees, as it may help mitigating the risks of starting the marketing process with the product as opposed to the market. However, it does not entirely validate the fitness of a given idea to a wider market. Additionally, due to knowledge protection issues, some products or services may be developed almost completely inside the company and only after be ready to undergo validation. This issue is addressed in the next section.

9.2. Product-market fit versus market research

Most participating entrepreneurs expressed that their first priority, especially in the early life of the new venture or whenever an innovative product or service is being developed, is to validate their ideas and broader market acceptance of the internally devised offer. The managerial marketing approach resorts to market research techniques to obtain important data to support product development decisions. However, managerial marketing research may be disarticulated from the way entrepreneurial firms operate in face of high levels of uncertainty. In fact, as early as more than 35 years ago, the role of marketing research in lowering the new products' failure rate has already been questioned by Crawford (1977), who puts forward several explanations. One is that new product decision makers may not really understand the role of marketing research due to inexistent marketing background. Another one is that it is virtually impossible to predict how the market will react to a new product, as the change in attitudes and behaviours is very difficult to anticipate. The author considers that market research is effective in assessing the consumer's perceptions about existing products or campaigns, for example, but it fails when it comes to the development of truly new products.

Results of our study also confirm this scepticism about the relevance of market research, at least in the form as it is usually presented in textbooks (e.g. McDaniel & Gates, 2013; Malhotra, Birks & Wills, 2013). The reasons expressed by the participants are aligned with the above mentioned. Innovative firms that propose solutions to a new or still under-developed market find very difficult to assess *ex-ante* how it will respond to a new proposal. Even when entrepreneurs admitted that they do not have the competences to conduct a market research, and, due to that, they understand the need of hiring someone with the required skills, they doubted about its usefulness. Therefore, under those circumstances, entrepreneurs tend to rely on their subjective opinion, as the following transcript illustrates:

«In these very specific areas, where the product doesn't exist yet, it is difficult to hire someone and ask for a market study... it doesn't work. I think that market research studies are very valid, but for more mature areas. When you work on innovation, you don't have anything mature [...] you are investing hard, but you don't know if it's going to work. We have the will, we have the... I don't want to call it intuition, but we have the perception that the market needs it, only it can take more or less time...» (#28: Engineering; B2B).

If undertaking internally developed market research is considered difficult, trying to find previously executed studies for an innovative area is considered almost impossible, due to its high cost or lack of relevance and topicality. The following excerpt conveys these ideas:

«Market studies don't always exist and when they do, they're very expensive, they're not as good as the ones that exist for the billion euro markets, and they get outdated fast in dynamic markets [...]. Also the time wasted in analyzing those studies can lead to defocusing, and I believe in focus» (#26: Digital Technologies; B2B).

Companies in our sample, nonetheless, do research in order to base marketing decisions, only in the way allowed by their contextual uncertainty circumstances, defined by the level of information available and processing capacity (Simon, 1991, 1956). One of the most immediate searches is for equivalent offers. The search for competitors not only can provide a comparison basis to make more informed decisions, but also serves as a platform for observational learning (Bandura, 1977), creating shortcuts to infer conclusions about the market, which is more difficult to assess. For instance, the need for the offer being proposed may be deducted from the recognition that the extant solutions are flawed or the value for the new product may have other proposals' price as a reference, as expressed by the following transcripts:

«We realized that [solutions available] were a completely **wrong** way to do things. We developed our solution based on this study that we've made about the existing solutions» (#36: Digital Technologies; B2B). {Emphasis added}

«What we researched was what is available in terms of existing solutions [...]. **How much the market values** this kind of solutions, how this product is paid... this type of things we needed to know... I needed to know how much I will charge for the product...» (#41: Digital Technologies; B2B) {Emphasis added}

This preliminary and more easily accessed information feeds the heuristic reasoning of the entrepreneur, giving him/her hints for his/her decision process, as suggested by the cognitive approach to entrepreneurship (Holcomb et al., 2009; Busenitz & Barney, 1997). Some interviewees admit that they relied on very simple data to decide creating the business, as transcriptions evince:

«We didn't do any research at that time [to assess the opportunity]. We didn't go to every [prospect] asking about their interest. However, we noted that, in the last years, **more and more** [prospects] participated in the [sector event]» (#21: Engineering; B2B/B2C). {Emphasis added}

«The process and the research itself were very intuitive. We tried to understand if there are other people doing what we do. And, if there are other researchers doing this, **why don't they create companies?** (#20: Biotechnology; B2B) {Emphasis added}

In fact, the question asked by the above cited interviewee is central, as this kind of information must be critically viewed. Literature on the theme has shown that heuristics also involve cognitive and behavioural biases (Ye, Fitzsimmons & Douglas, 2008; Baron, 1998; Busenitz & Barney, 1997). It is common in our sample entrepreneurs considering the lack of equivalent competition as a sign of an unexplored opportunity. However, it can also mean that the market is not receptive. However, understanding this before testing the market acceptance is very difficult. That is why we found in our study several examples of actions aiming at sensing the market responsiveness to the offer being proposed.

Obtaining market information is one of the most important entrepreneurial tasks, as it helps lowering uncertainty and, consequently, making more accurate decisions. Due to the rapid change dynamics of new markets, it is not possible to completely plan the right strategy and the final product at the outset (Morris, Schindehutte & LaForge, 2002; Stokes, 2000a). Even so, results of our research indicate that it is possible to accelerate the development of the new company when more relevant information is available. The proof of concept and market tests of products and services are used to obtain such information.

In our sample, we observed that this research was not limited to a well-defined point in time. Although being more relevant at the early stage of the business, before the product is completely developed, this is an ongoing process that seizes any opportunity of being implemented. In that sense, it is possible to detect this testing intention in a sales episode or a communication action. In fact, there is substantial evidence in our study of an interweaving of marketing activities, particularly in the early life of the new venture, with the boundaries of R&D, market research and also the commercial and promotional actions blurring together. For some entrepreneurs, the product and market test may be regarded as an integral part of the commercial process and as an opportunity to get the message across, as the following transcript illustrates:

«As for **commercialization**, which is the most complicated part, we are expecting to do it in several phases. The first phase will be previous to commercialization in itself. We intend to put the prototype in several [prospects] within the national territory, to **test** it and obtain user **feedback**. Besides, it is a way to **showcase** the product, as people, including tourists, will have contact with it» (#21: Engineering; B2B/B2C) {Emphasis added}.

Within this frame of mind, several different situations are considered good opportunities to prove the concept or the product, to learn with the feedback and to evolve the product or the marketing strategy. Trade fairs and sales meetings, either relating the product in question or others, are commonly referred, as illustrated by the examples below:

«Participating in a trade fair is R&D» (#31: Biotechnology; B2C/B2B).

«This is a much closed industry, and it is very difficult to understand how it works [...]. At the end of our presentation [in a trade fair] we made contacts and we got a much deeper knowledge on how things happen in the industry» (#22: Business Services; B2B).

«There has been a good responsiveness, even internationally [...]. When the sales people of the company [partner] visit customers, they speak about this new product and they are amazed!» (#29: Engineering; B2B).

One of the interviewed entrepreneurs explains how he adjusted the offer to meet the particularities of the customers discovered during sales meetings. Although he tried to research the market in advance, he admitted that sales meetings are the best way to understand customers and their needs:

«When I'm in a sales meeting I am doing market research [...]. I'll present the customer a proposal according to what I learn his needs are» (#40: Business Services; B2B).

Another entrepreneur expressed how he was capable of understanding customers and prospects' preferences without asking them directly, through both personal interaction with them in promotional events and the interpretation of sales data. He explained that:

«The [promotional event] allows us doing that... to make statistics. We know what the best-seller product is, we know what are the things that we can always repeat because they're always going to sell... [...] The collection if somehow formed with this inputs and [events] feedback, in a sense. We define new collections as we receive this feedback» (#1: Textiles; B2C).

This 'opportunistic' approach allows important advantages. Besides the fact of being able to obtain needed information at a very low cost, the interaction with customers or prospects in contexts not designed specifically to make market research may lead to a more real understanding of the customers' behaviours and needs. That is, in these situations, the market is not asked directly what its preferences are, these are observed. Personal interactions, informal conversations, and observations are also considered helpful to understand the customer's value creation process with and without the product being offered, which gives important information to adjust the value proposition. In the process, new companies get to know more about their own needs, as well. This is consistent with a more co-creative approach to understanding customer's needs, in which both the company and customers engage in learning, as opposed to a more traditional approach of hearing the voice of the customer (Jaworski & Kohli, 2006).

Because marketing actions are not always distinct from each other, the opposite may also happen. That is, during the process of validating the idea directly with prospects and influencers, contacts can be made, which may result in sales, as one interviewee describes:

«We made a validation with the entire spectrum of people of interest, from the entrepreneurs, to venture capitalists, business angels, universities... [...]. We defined our business model and validated it with these entities. We made alterations, naturally, until we said: 'ok, let's start it'. Resulting from these contacts, we started receiving service requests, which validated even more our idea» (#22: Business Services; B2B).

As the previous excerpt also suggests, idea or product validation is made not only through experts and prospects, but also through other partners holding deeper knowledge about the market. These can be industrial partners, commercial partners or other stakeholders related to the intended market, such as industry or trade associations or social institutions knowledgeable of the needs being targeted. The entrepreneur quoted below admitted that he learnt a great deal about the market through a partner association that works with the special needs that his target-market has:

«It was a work always developed with them. They taught us and showed us the customers' needs and, with that information, we identified several projects that we could develop [...]. We didn't have any knowledge about their problems; we started learning about their problems with them [partners]» (#9: Textiles: B2C).

As described above, in general, the studied companies did not use formal market research to inform marketing decisions. Instead, they coped with the uncertain circumstances surrounding the innovative business by finding creative ways to acquire information, when possible taking advantage of events with different purposes. The only more formal research situation that we identified was the

controlled execution of clinical trials for products with health implications. However, these tests were made, not with the explicit purpose of understanding the consumer needs, but as a way of acquiring data to support marketing claims and prevent future legal trouble, since:

«The communication materials and point of sale support material are informed by the rules of the regulatory entity for health applications» (#7: Textiles; B2C).

During the process of validation, the value proposition of the new product or service starts to gain shape. Although the main focus of this value proposition is on the advantages of the offer over the known alternatives, some market assumptions start to be drawn, especially concerning the relevance of the need to be addressed. However, the validation needs to be extended to a larger market in order to ensure that the information gathered is converted into a more or less sturdy product. Results show that market validation encompasses: a) being able to verify the existence of the need which is to be addressed; b) understanding how the market would like this need to be solved (technical specifications), which can result in having to redesign the offer; c) inferring the market potential through the identification of criteria for defining the market's possible size; and d) the discovery of new needs, which can also be addressed with the existing competencies.

Although the real market validation can only be made when the product or service is actually ready to be market tested, in most cases, several adjustments must be introduced in some aspects of the offer in consequence of such tests. For that, some studied companies deliberately chose neither to develop the product too much nor to invest in a single way to take it to the market, in order to leave room for changes after the market acceptance was tested. In fact, the themes of tactical flexibility and co-creative approach are often present in previous literature on entrepreneurial marketing (e.g. Hills et al., 2010; Hills, Hultman & Miles, 2008) and effectuation (e.g. Read & Sarasvathy, 2012; Sarasvathy, 2001).

Among the strategies that the interviewed entrepreneurs used to test the market's responsiveness of the products' features is free experimentation, both with friends and more distant prospects. Making the product available free of cost to the prospect consumer not only contributes to lowering the adoption barriers that new products face due to lack of trust, but also allows gathering information about the user's actual value creation process. We found several examples of this tactic to obtain information, such the ones depicted below:

«We have several friends who engage in sportive activities and we also gave one of the products to a former football trainer, and we asked them to test the product. [...] If everyone says no to the product, it doesn't mean that I'll give up the product, but I start to think on what could be wrong» (#18: Textiles; B2C/B2B).

«We made a set of services available for free to doctors that already worked with us. It helped us attuning our system and validating the whole process» (#10: Engineering; B2B).

Another strategy used by companies in our sample is to make the product or service available to a limited market to test for acceptance and to make adjustments before investing on scaling up the project. This trial-and-error process may last a long period of time, as several iterations are needed during the learning cycle, as previous literature shows (Loch, Solt & Bailey, 2008). The adjustment process is considered important not only to gather information to improve the product or service, but also to acquire knowledge that allows understanding the market and learning how to deal with it within a particular business setting. Therefore, the process of testing the market is also an experiential learning opportunity that interviewees recognize as being very useful. The following excerpts present some examples of these test market actions undertaken by participants in the study to lower uncertainty and acquire marketing knowledge. In the case of one business already created for nearly two years, which had finished products that were being sold at a controlled rate, the entrepreneur states that:

«I don't consider that the product entered the market yet. Everything around the product is still changing, from the brand name, the image, the production site, the selling points... this journey has been a market test. This is one of the secrets, testing the market... and doing everything, not only a questionnaire. In doing this market test we included every business areas, from understanding how to clean a plant, to negotiating with partners...» (#31: Biotechnology; B2C/B2B).

One of the participant companies was in the process of adjusting its commercial strategy. The interviewed entrepreneur shared that he was able to understand the market decision routine during the product testing. He says:

«For the commercial part, we follow very closely the information that physicians who collaborate with us give. We need to know what interests them and how to reach them. In this industry, the doctors are who make all the decisions. There may be a hospital manager, but he always asks for the physician's opinion» (#10: Engineering; B2B).

Another entrepreneur explained that, although his company's products are global, he decided to start with the Portuguese market before entering foreign and broader ones, so as to be able to test the market acceptance and the commercial approach fitness before investing in a certain course of action. Even within the domestic market, the release of the product or service may be restricted to some market spaces, in order to be able to control as many variables as possible and to learn with the results of such a test, as the following excerpt exemplifies:

«The [institution where the entrepreneur is a researcher] will be our first customer and an experimentation laboratory. All small changes that may be made to the solution will be first tested here in order for us to understand whether they are useful» (#41: Digital Technologies; B2B).

Thus, we could observe that new ventures market research differ largely from traditional market research in several aspects, such as:

a) Objectives: being the main one to validate the idea and test the market responsiveness to the value proposition;

b) Tools and processes: instead of using conventional data acquisition techniques, such as surveys or interviews, entrepreneurs use informal conversations, direct observation and real tests involving product or service usage;

c) Sources of information: besides the target market itself, other sources of privileged information about the market are used, such as influencers, experts, development partners or distribution channels. This helps gathering an important amount of quality information, since these are privileged connoisseurs of the markets' needs and buying behaviour, while allowing maintaining the market research budget low. It is a very efficient way of obtaining marketing intelligence, since it narrows the touch points. One single source has a lot more information than each member of the market in an isolated form. Additionally, the type of marketing information that the company needs at this stage sometimes is not held by the prospects or they are not aware regarding the information needed, such as the adequacy of the technical solution and effective channels to reach the market, for instance.

As they were found in our study, market research activities, which are seen as relevant enough to be referred as critical for company development, have implicit a logic of cost minimization instead of return maximization (Sarasvathy & Dew, 2008; Sarasvathy, 2001). Although one particular

offer may promise a great potential, in a context of uncertainty, entrepreneurs in our sample showed a cautious behaviour and tended to privilege more safe options, which allow testing the market and the firm's capabilities.

There seems to be a certain hierarchy of intents, being the first one to make the product-market fitting validation and only then to set return goals. For achieving this, investment is controlled, as entrepreneurs are aware of the risks that the new venture faces. As information and knowledge grow, retrieved from experience by testing products and collecting reactions, return goals start to be defined and resources are allocated to attain those goals. Therefore, in a context of uncertainty, it is the affordable loss principle, instead of the expected return one, that underlies the market research process. The next excerpts translate these ideas:

«Before going forward to a big plant, for which we needed to **invest a lot**, we decided **to scale up gradually** to understand the market, to have a market research study. Up to this point, this [the restricted business activity] has been a market study and it is a **market research study with the real people**. [...] This allowed adjusting the offer and the product range to the market. Everything changed. Now we know exactly which products are better accepted [...]. Now we know the product and we know the market» (#31: Biotechnology; B2C/B2B) {Emphasis added}.

«We also had in mind more advanced applications than this one, but as we never had developed a mobile app, it would be important to first **begin with a test product** [...] When we are developing, we are **investing a lot** of time and, therefore, we are consuming money. So we thought, 'let's begin with the simplest application'. We went to the idea portfolio and picked the one that we thought that could sell better and that would be the fastest to develop» (#15: Digital Technologies; B2B/B2C) {Emphasis added}.

In sum, the tools used for market validation are creative and low cost, such as giving away products for being tested by friends and family or offering the product for free to prospects in exchange of information to make it more fit to their needs, and also grasping market information when talking with influencers and other stakeholders. The use of a creative and low sophisticated tactics perspective to solve marketing problems is consistent with previous findings on entrepreneurial marketing (Morris, Schindehutte & LaForge, 2002).

Frequently, the process of market validation is long, occurs in several phases of the business development and is very iterative and interactive. For instance, the company may include the customer in the process of product development, and even after the product is finished the offer can be continuously tested with other prospects, in terms of product range and new features. That is, in

the early life of the business, the offer is continuously tested against the market needs, wishes and wants. Hence, market research is an informal activity that calls for customers' involvement in a dialog and that occurs in different phases with different objectives, which confirms previous suggestions (Hills, Hultman & Miles, 2008; Jaworski & Kohli, 2006). Table 9.1. summarizes the identified entrepreneurial market validation activities, along different phases of the product development.

Table 9.1. Product/market validation actions of participating companies

Phases	Market research activities	Advantages and disadvantages
R&D – the objective is to define the functionalities or the main specifications. The product or service is flexible and remains open to accommodate future developments.	<p>Partnerships with customers to develop a tailor made product adapted to the customer's specific needs – the customer participate as the mold to develop a template. The partner obtains the product in advantageous conditions or for free, the start-up gains know-how.</p> <p>Partnerships with other groups of interest that know better the needs to be addressed and can collaborate in the product characteristics' definition.</p> <p>Use the sales visits to observe the customers processes and try to identify where value could be added by the offer.</p>	<p>Low learning costs.</p> <p>Product or service well fitted to the market needs.</p> <p>The product may be too much restricted to one particular customer's specificities and result in future costs of generalization.</p> <p>Long development curve, encompassing several iterations, sometimes during years.</p>
<p>Early tests – usage tests to prove the concept or to test the claims (benefits proposed). The criterion for choosing the actions to implement is effectiveness. Entrepreneurs use what they believe will give them the information they need at an affordable cost.</p>	<p>Giveaways to friends and family, asking for feedback.</p> <p>Only if official certification is demanded, the tests would follow a protocol; otherwise, they are casuistic and based on convenience.</p>	<p>Low testing costs, immediate results.</p> <p>The feedback may be somewhat distorted by the biased view of family and friends.</p>
<p>After market entry - the objective is to get information about market behaviour and complementary needs. Entrepreneurs leverage contingencies, seizing unusual opportunities for research.</p>	<p>Test markets – focus on niches</p> <p>Use all market interaction opportunities to acquire more information (sales encounters, promotion action, such as participating in events).</p>	<p>Low cost.</p> <p>Information about the customer's value creation process.</p> <p>Observation, less interference with the researched 'object'.</p> <p>May not represent the larger market.</p>

Besides the above mentioned objective of validating the product/service features and market assumptions, market research of new ventures has also another important aim, which is to gather information to establish prices. Interviewees in our sample consider pricing of new products and services very difficult, especially if it involves several dynamic variables and when the customer cannot perceive the costs underlying the final result. This is common in technological areas, when the technology is not mainstream yet, raising the cost of the final product. The task of price definition for the first products often follows also an effectual logic, based on experimentation and establishing the path for a learning process, based, not on existing information and capacities, but on acquired ones in the course of one's own experience. This was considered, by several participants in the study, as one of the most difficult tasks start-ups face. The following transcript presents the process of pricing described by one interviewee:

«This is the most **difficult** thing... You have to understand the **market value**, because... **it's not easy**... it is **trial and error**. You shoot a number and the customer says: 'You are crazy!' You have to always shoot high [...]. If the customer doesn't accept, you make him a discount for being the first customer... for his beautiful eyes... whatever the reason is, and start lowering until he says: 'Ok, I'll buy it'. This is when you reach the market threshold [...]. For **innovative products**, there is **no other way**; you may make a million market research studies...» (#28: Engineering; B2B) {Emphasis added}.

Thus, as the excerpt suggests, there is a concern in adjusting the price to the market value. However, unlike what the managerial process would prescribe, there is not an extensive market research to find the optimal price. Price is negotiated with the actual customers and, just the same as the product features, it is very much determined according to what the first customers are willing to pay. Besides the market value, the costs and comparables are also used as references for pricing. When the prediction of costs is possible, this is one important base to set the grounds for pricing, as the following transcript illustrates:

«First we calculate the costs. That is, how does it cost to have a company running? Then we put our margin [...] but we are still learning and now we are doing better in that job» (#32: Digital Technologies; B2B/B2C).

However, for high value-added products, for which the market value has to be ascertained, other measures have to be used, as one of the participants explained:

«When it is a project, you estimate man-hour needs, and then is just doing the math and that's it. For products? Oh, it is much more complicated... [...]. It depends on the value for the customer; it's not linear. In our case, we try to make an analysis of the return on investment [...]. In how much time will the customer pay the investment?» (#28: Engineering; B2B).

And even when competition is used as a reference, it is possible to observe that there is an influence of subjective measures for the right price, as the following transcript indicates:

«I do benchmarking. I have friends in big companies and I ask them [...] and then I adjust to what I think the fair price is» (#37: Business Services; B2B).

The flexibility and adaptability in making pricing decisions, as in other entrepreneurial marketing decisions, also involve hazards. The following excerpt gives an example of an entrepreneur who tried to work under the budget considered acceptable by the customer. As he wanted to make the best job possible in order to set his quality standard to the market, he suffered losses:

«What I did was to set a value and then worked under that budget. In my case I lost money, because I wanted that to be very good» (#30: Digital Technologies: B2B/B2C).

These losses with first sales, however, are not necessarily avoidable and they can even be considered investments. As it will be shown in the following section, overcoming the resistance of the market to a new product or service can be very difficult, in many cases. Generally, the market doubts the capability of the new firm and its unproven solutions. Under these circumstances, being able to acquire a customer represents much more than a sales achievement; it can be an important argument in the communication strategy that opens doors to start expanding.

9.3. Market expansion versus market segmentation

As we described, among participating companies, the starting point for the marketing process is typically a new product or service development, strongly based on distinctive competencies of the founding team or technologies. For some studied companies, the initial market was as small as one single customer. Before investing on growth, companies in our sample were focused on testing both their solutions and their market assumptions. Adjustments were, then, made in product's functionalities and prices.

The next step is to expand beyond the first customers and the first products. Two different pathways were found in this process. One is to proactively seek new applications and markets for the existing offers, improved by experience, capabilities and know-how. The other is to reactively leverage contingencies (Sarasvathy & Dew, 2005; Sarasvathy, 2001), such as incorporating new projects proposed by partners or attending spontaneous or stimulated demands from market. Instead of starting with the larger market and targeting new segments, companies in our study grew organically from the initial offer, with a predominant inside-out perspective but also responding to market requests. This is consistent with the bottom-up approach proposed by Stokes (2000a, 2000b). Contrary to managerial marketing that recommends assessing indicators, such as the substantiality of a given segment, to ensure profitability (e.g. Kotler et al., 2009), entrepreneurs in our study tend to choose targets based on criteria such as the potential to explore existing capabilities and resources and convenience and possibility of lowering costs and risks. Several interviewees' transcripts reflect such ideas, as the following do:

«Within our competency range, we have to identify **what we can do**. Of course we could expand **outside our competences**, but this doesn't come without a **cost**. Going to areas that we don't know entails a **bigger risk**. So, within our competences, we tried to find what could be translated into value to the market» (#28: Engineering; B2B) {Emphasis added}.

«We turn to the food area where it is **much cheaper to do trials** [...]. It is the **same technology**, but from the regulatory point of view the second product is **easier to take to the market** because it is not in the health area» (#19: Biotechnology; B2B) {Emphasis added}

Although it may seem that the described expansion decisions are disconnected from the market, in the sense that they are mainly technology-pushed, it was possible to observe in our sample that there was an implicit knowledge about what would be meeting real market needs. This informal marketing intelligence is predominantly built upon scattered information that the entrepreneur manages to make sense of, by connecting the dots (Baron, 2006), as ahead described in Section 11 dedicated to explain the conditions to make entrepreneurial marketing decisions. In the process of expanding the business outside the original market, hints from the market allow devising routes to explore and monetize the company means. Hence, although these decisions may not be as rooted in expressed market needs and wants as if the development of new solutions was preceded by a market analysis, they are not completely detached from the market ground, as the following statements illustrate:

«Our market evaluation is very much based on what customers ask us. Over the years we managed to identify market needs» (#28: Engineering; B2B).

«Nothing of this is like: today I wake up, it is a beautiful sun and I say: 'I am going to make a new product'... no, it is a continuous process in which we take into account what the market says, what you feel from the market, and your experience and sensibility» (#28: Engineering; B2B).

Within this decision style, the entrepreneur is able to find a fairly good balance between what new companies *can do* and what the market *needs* to be done. Even if this middle ground would not maximize returns, it helps controlling for the risks, until either the company affordable loss limit raises or more structured and detailed information from market helps lowering uncertainty.

On the other hand, expansion decisions may be directly based on requests from the market. The next topic addresses in more detail the product and services range decisions in line with these ideas.

9.3.1. Portfolio expansion decisions

Although there is a greater prevalence of the technology-push approach, it was also possible to identify, in our sample, decisions of new product development resulting from market requests. These stimuli can lead to developing new areas never before considered if, in face of these opportunities, entrepreneurs decide that these requests fit the vision and capabilities of the new firm, which is consistent with the effectual decision making principle of leveraging contingencies (Sarasvathy & Dew, 2005; Sarasvathy, 2001). These opportunities arise in several forms. Sometimes, when selling a type of products or services, customers may ask whether the company can offer other related solutions. This is an interesting way to expand the business, as one of the most difficult barriers to overcome, which is the gain of market's trust, is surpassed. While developing the idea that originally gave substance to the project is a process very much inside-out oriented and considered proactive by entrepreneurs, this outside-in approach, based on expressed needs of the market, is considered reactive, as expressed in the following transcript:

«The client asked: "And don't sell that?", and I said: "no", but then I thought: "Indeed, why doesn't my company, that has the competences, do that?" It is the market that asks me, I have to adapt [...]. I just have to guarantee that I have legitimacy to act in other areas [...]. This is a very reactive strategy, but I am proactive in others» (#37: Business Services; B2B).

One proactive way to detect expansion opportunities anchored in existing and spoken market needs is to encourage market requests. For instance, one of the interviewed entrepreneurs described how the idea for a new product emerged, illustrating this 'ask the market' approach. The company wanted to expand the business but still focusing on its core competences. Thus, the entrepreneurs decided to do a direct marketing action, approaching some prospects, not to offer their products, but their competences. The entrepreneurs described the mailing:

«“We are here, we have these competences. If you have any need that we can solve, we are here”. There was one (prospect business) that replied by saying: “My friends, we have a problem here, come here and try to solve it”. It was from here that a new solution was born [...] developed in partnership with that client, customized to his needs. From there we started to knock other [same business area] doors offering the same solution» (#28: Engineering; B2B).

Ideas for new products can come from prospects but also from partners, and even from other more unusual ways, such as the following:

«I was on the street with my equipment, which draws a lot of attention [...] I was there and people approached asking me what I was doing. I showed them samples of my work and people wanted to buy them, right there. That is, it wasn't my intention to create this product but people seem to be interested in buying it. That's how I detected that it could be a business opportunity» (#30: Digital Technologies: B2B/B2C).

Most of the times, the expansion decision process is neither very analytical, nor it involves a broader market validation. Especially when it does not require a high effort in terms of needed resources, the criteria are subjective and often personal. The preference is for experimentation when there is not much at risk, as portrayed below:

«When more investment is needed, there is a more detailed analysis, and market analysis. When they are cool ideas and experiences, if they are good, they go directly to the production pipeline» (#36: Digital Technologies; B2B).

Another important criterion used to define and change products and services portfolio is the practical need of having to incorporate different sources of income. While in some cases it was observed that companies start selling even before they are officially established as a firm, in other cases the development stage takes longer than anticipated and delays the market entry, which creates some financial stress. Typically, among the companies studied, it was possible to identify four ways to sustain the young company during this period: a) through seed or venture capital; b) through public

funds or monetary prizes; c) resorting to personal investment, both money and, more frequently, work hours; and d) resorting to provision of not initially intended services that can be offered to the market right way, such as specialized consultancy and other business services based on the team's competencies. Although these services or products may not represent the main intent of the young company, or even be innovative, they are used as a self-funding tool that allows lowering the risk of the business. This is specifically relevant for research-based companies that choose to generate internal funds to be applied in research of more complex products. This is considered by some interviewees a financial bootstrapping strategy, which can be defined as the «use of methods for meeting the need for resources without relying on long-term external finance from debt holders and/or new owners» (Harrison, Mason & Girling, 2004, p. 235-236). Bootstrapping is the most common way to finance activities that occur in the uncertainty context, as Alvarez and Barney (2005) note, allowing greater freedom for creating opportunities, instead of pursuing identified ones. It is also consistent with the affordable loss principle of effectuation. Several interviewees' transcriptions reflect that idea, such as the following:

«We had to incorporate other products to **sustain the company**... and why? Because, up until this point, we didn't have our **products ready** to enter the market, yet» (#29: Engineering; B2B) {Emphasis added}.

«At this moment, **we did not anticipate** that it would be what we would do in the next four years, but this opportunity was seen as a means to **ensure funding** for the other projects that we were working on» (#5: Digital Technologies; B2B) {Emphasis added}.

«Our objective is to be a product company, where we believe the creation of value is, but we wanted the company to be **self-sustained** and these services are a **way to fund the product development**» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

As one interviewee notes, when talking about the incorporation of not initially intended offers:

«I had to save the company, after all, the company was created and I had to earn money somehow» (#3: Biotechnology; B2B/B2C).

This preference for lowering the risk through self-funding has also disadvantages. Without the financial leverage, the new firm's growth is slower, as one of the interviewees recognized:

«The services that we have always provided were intended mainly to sustain the company and lower the risk. We diversified the offer and lowered the risk of presenting a single technological product and managed to survive, but we did not attain an exponential growth, as typically happens in a technological spin-off» (#21: Engineering; B2B/B2C).

Even though, within a logic of efficiency, start-ups may be able to identify aside products or services that can create synergies. For instance, a company may develop a basic or a less innovative service that allows having a revenue flow but also helps reaching the market for future penetration of more complex offers, such as selling training or consultancy to companies that are interesting prospects for solutions perceived as having more risk, as the next transcript exemplifies:

«Training services allow us financially sustaining the company on a daily basis, [...] but not all projects interest us [...] this is also a way to make new projects scouting [...] it is part of our commercial strategy» (#22: Business Services; B2B).

This is an example of a more strategic decision that benefits from the entrepreneurs having marketing competency, however.

Both proactive and reactive growth opportunities depend on new ventures' ability to create paths to reach the market. Therefore, market expansion is established upon the communication and sales channels that they can provide.

9.3.2. Bridges to the market through communication and sales

When the company is new and has little or no brand recognition, mass communication strategies or even direct communication with prospects are seen by the participant entrepreneurs as having very low effectiveness. One of the pinpointed reasons was related to the lack of legitimacy and trustworthiness that these firms face for being new. Legitimacy can be defined as: «a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions» (Suchman, 1995, p. 574).

As relationships with customers, or other stakeholders, for that matter, are still being created, companies lack ties that would make their marketing communication more effective. One explanation for the higher failure chance of younger companies indicated by Stinchcombe (1965) is, precisely, the absence of stable links with customers, supporters and other groups of interest, which contributes to their liability of newness. In our study, we confirmed that this is a real hindrance for the new firm's marketing effectiveness. At early stages, new ventures are unknown for most of the prospects, and for that are regarded with distrust when they approach the market, especially if the products or services are highly innovative. Under such circumstances, entrepreneurs tend to turn to their networks taking

advantage of the personal trust they can have. Subsequently, products or services might be referred by the very customers, in a snow ball process. As one of the interviewees explains:

«At the beginning we have no credit in the market and people have to trust you. Today we can show our portfolio and show that we are capable of what we claim, which helps ensuring to the customer that what we have is reliable» (#21: Engineering; B2B/B2C).

As the company gains broader recognition and credibility, both through brand awareness and given proofs such as portfolio and awards, the more traditional communication starts to be seen as adequate. Until then, several other actions are experimented in order to reach the market. The actions that we detected from the interviews can be classified in four main categories: references in the media; the use of the products or services as a proof of capability, which we called *productisement*; communication through people and influencers; and internet and other low cost tools. These topics are described in more detail hereafter.

9.3.2.1. References in the media

Marketing press relations is one of the tools included in the marketing communications program and recommended by managerial marketing (Kotler et al., 2009). Due to its low cost and broad diffusion, it is also used by some of the participant companies as a means to get the message across, although its benefits are not consensually acclaimed. It is relatively easy to capture the media attention when products or services are differentiated and innovative, sometimes responding to important needs with interesting value propositions. However, as it was used by the participants, it was rarely planned and managed to maximize impact. Although being a low cost tool, getting references in the media is, sometimes, seen as demanding of resources, such as time and money to travel, as it happens in the case of participation in television shows. When the team is small and has to do everything in the company, such activities can be considered a problem and the potential of these communication actions not completely seized. It was also indicated that it is necessary to ensure response capacity to deal with potential requests following this type of communication actions. That is, in the initial stages of development, sometimes companies avoid to create high expectations in the market, given the fact that almost everything in the company, including the offer, is in the process of settling down. These ideas are illustrated in the follow transcript:

«We have already declined invitations to participate in some TV shows, because without the store opened and before the site is completely functional, turns out to be a presence that brings no great benefits and sometimes demands some effort... It is important to ask: 'What for? Who sees it? Are we reaching who really cares or are we just appearing?' [...]. For us, with a small team it turns out to be a considerable cost» (#9: Textiles: B2C).

The fact that, sometimes, this type of communication actions is not regarded as very profitable may also be related with not having realistic goals against which to measure results, within a logic of experimentation. Additionally, for some less innovative products that target mass markets, these actions may not always have an immediate impact on sales, especially when undertaken neither with a clear intentionality nor being grounded on marketing capabilities, as one interviewee testifies:

«We spent almost no money [in product promotion]. [...] We were able to present the product in three different TV channels, again, through our efforts and personal contacts... we're also featured in some magazines. But when we checked the impact it had on sales, we realized that it was almost null. We learned that it is extremely difficult and expensive to make advertising that effectively helps leveraging product sales [...]» (#6: Digital Technologies; B2B/B2C).

Nevertheless, there is evidence in our sample of the positive effect of media exposure on attracting prospects, as the following excerpt shows:

«Recently we had a meeting with [a reputable Portuguese business group] and it was them who contacted us after seeing our article in the magazine» (#36: Digital Technologies; B2B).

The benefits of references in the media are more consensual among our sample when the effect on recognition and credibility is to be assessed. Although results on sales may not be immediate, featuring in the media helps generating brand awareness and build reputation, making future direct contacts easier. This is consistent with the idea that the ability to gain cognitive legitimation, which refers to the dissemination of knowledge about the new firm, is important to overcome the liability of newness (Aldrich & Fiol, 1994). This legitimation is considered important to build brand trust that can be monetized later through other communication approaches.

Another way to create brand trust is being able to prove the value that is being proposed to the market. For this, concrete evidence is demanded. In order to risk buying a new product or, even more hardly, a service, the customer wants to see whether the new venture is, in fact, capable of delivering the promise. In that sense, the product or service of the firm is its most important communication tool, as we demonstrate in the next topic. What is even better in terms of marketing effectiveness is the

ability to offer to the prospect customer previous cases of product/service adoption. Therefore, making the first sales may have a bigger impact than just a financial one.

9.3.2.2. Productisement

The product or service of the new company has a relevant communication and selling power, as it speaks for itself. A good product or service is considered by some interviewees as an important pre-requisite to reach the market and it is a way in itself to communicate with the market. We called this blend of offer (product) and communication (advertisement) *productisement*, which is considered a very helpful tool by the participant companies in several ways, such as: a) to give firm's credibility, as the product is a showcase for its competencies, reducing the liability of newness by building market trust and legitimacy; b) to generate positive references from satisfied customers; c) to backup other communication actions, supporting their claims; d) to attract fans that help spreading the word; e) to generate buzz and media interest; and f) to build brand awareness that helps selling the main offer as well as other company's less exciting products and services.

In fact, generally, interviewees mention that a consistent and compelling product or service, based on indisputable quality, is the first thing they focus on to give credibility to the communication actions they establish with the market. Being able to build trust in an early stage of firm's development is very important, as previous literature shows. In fact, «It is at this time that the venture will have least credibility with the target customers and, if sufficient credibility is not established, the venture will be still-born» (Ali & Birley, 1998, p. 755).

The opinion that a good product or a well-executed service not only meets the customers' expectations, but also generates references that leverage future sales is very common among the interviewees. The opposite is also considered, that is, in the process of gaining market trust, a poorly executed service or product can cause major damages. In a sense, it is somehow as if the young companies must endure a probationary period, during which they need to prove worthiness. The following excerpts illustrate these opinions:

«I believe that we should always make a good work. We can't do many things, but we should do well what we can do. A **lousy job can ruin everything**. Ten well-done jobs are not as important as a poorly-done one. **I always give 100%** to everything that I do. That allows me **gaining trust** from those that recommend my work. [...] If I do a shoddy work, I'm letting down not only my customers, but also the

person who recommended me. [...] I put extreme care into my work because it is **my only marketing tool** [...]. It's easy to create an image to convey through **advertising**, you just have to pay someone to do it and it sells... and it works! But it can be **easily demolished**, whereas if you create an image based on the **quality** of your daily good work, it's much **less easy to destroy it**» (#14: Engineering; B2C/B2B) {Emphasis added}.

«There's no use in having a good commercial team without a quality service. I can spend lots of money with **selling people**; but if I don't have a **good service** to **support their promises**, they're going to receive a lot of complaints...» (#2: Biotechnology; B2B) {Emphasis added}.

The product as a communication tool is sometimes considered even more important than any other promotional efforts. An entrepreneur, talking about his decision not to actively promote the services but letting the quality and honesty of services talking for themselves, asserted that:

«We haven't had the time to see if this is the best bet, but I believe it is. In times of crisis, I believe that the business of the future will have to be based on trust» (#15: Digital Technologies; B2B/B2C).

Another interviewed CEO presented the relative importance of the product and communication actions – in his words, equalled to marketing in terms of designation – as it follows:

«I think that before marketing, there is the **real work**. I say 'real work' because marketing shows just one side... for those who **know well the product, marketing is not important**. [...] A prospect will want to analyze the product in detail, and for that marketing is not as important, the person's experience with the product is what matters [...]. The product is the most important marketing tool» (#26: Digital Technologies; B2B) {Emphasis added}.

However, it is necessary that the value proposition embedded in the product or service is strong enough to be a laud argument. Product differentiation is key for it to be able to be noticed, as the following interviewee transcript describes:

«We have to have an underlying idea, a concept, and to think a bit outside the box, otherwise it [the product] won't be able to **stand out**. If you have a **normal product**, despite all the **marketing efforts**, it **won't go**. The image and marketing helps a lot, but if the idea is just normal, it is difficult to put it in the market. It is just one more» (#18: Textiles; B2C/B2B) {Emphasis added}.

Due to lack of market credibility, interviewed entrepreneurs in general believe that their competences can be better conveyed through their very application to real solutions. They revealed that they feel almost obligated to present factual examples of what can be achieved with their allegedly distinctive know-how or differentiated product, in order to overcome the market's scepticism.

This issue was previously highlighted by Aldrich and Fiol (1994), who interrogate: «With no external evidence, why should potential trusting parties “trust” an entrepreneur's claims that a relationship “will work out”, given that an entrepreneur may be no more than an ill-fated fool?» (p. 650)

In the case of the businesses that combine products and services, in our sample typically those that develop software applications, a product is often used as a display of the company's abilities, attracting in this way customers for other services. Therefore, the profitability of a product may not only be assessed by its direct return on investment, but also by its ability to be an effective communication tool. Also, a good showcase product helps gaining credibility that contributes to enlarging the range of communication opportunities, such as invitations to participate in events with fairly good visibility. One of the interviewed CEOs reported that his company, mainly focused on software services, launched a product without being devised any clear business model or having any monetizing intention in the short run. Being available for free, it helped the product disseminating and generating awareness for the whole company. He tells that:

«The main reason for creating this **product** was to **promote** ourselves. [...] It had a very good impact... so that... we are still trying to understand how to take the most of it [...]. We have no idea of how to monetize the project yet, but the main reason to create it was to promote our brand anyway...» (#32: Digital Technologies; B2B/B2C) {Emphasis added}.

Similarly to this one, other participating companies also focused, at some point of their development, in creating a portfolio, considered important to certify competency and leverage trust. Products showcasing the firms' capacities can be developed so as to promote the company while, having monetization potential at one fell swoop, or they can have the exclusive intention of growing the portfolio. This is considered a sales investment, as it is referred as having an important effect in terms of acquiring new customers. This justifies why, during a period when a participating company found itself for the first time since inception without sales orders, the CEO decided not to launch a sales promotion action, but rather to work on the products' portfolio that was made available online. In fact, when asked if the company did any action to reach the market and promote service requests, the interviewee responded by saying that they had no plan B, therefore:

«We've come to occupy this free time to make portfolio, which has already results, and we are now with a big prospect that came from this portfolio that we made during that time» (#34: Digital Technologies; B2B).

Portfolio can, obviously, also be created with the actual sold or used products and services. However, to convince the customer or user that will inaugurate the portfolio to believe in the company without before given proofs are available is difficult. That is why some of the studied companies resort to creative ways to acquire experience to display as credit. For instance, one interviewee recounts how the founders team of his specialized consultancy company decided to participate in a program offering their competencies and services free of charge to gain experience and credibility:

«This participation served as a way to gain experience, as we didn't have anything to present to our customers to validate our capacities, besides our own background... Our type of business is very much based on what we have done before, and we didn't have that past experience. Although we had positive feedback from the market, we had to have something to show what we were capable of» (#22: Business Services; B2B).

As mentioned before, providing products or services for free not only allows obtaining experience and creating a company background, but also provides important market information to test market assumptions and adjust the offer.

The product as a guarantee for the company's capacities, conveying reliance to other customers, can be paired with important or reputable clients that can work as leverages or trust boosters, as well. Several interviewees described the positive impacts of being able to acquire a very important customer in the early life of the company. This importance may be related to the financial outcomes, but it is the communicational potential and the reputation that they represent that is consistently highlighted. The recognition of the huge role that these strategic customers may play in the process of building market trust and acceptance leads entrepreneurs to be willing making short-term sacrifices in order to deserve their support, as the following transcripts illustrate:

«[The client] was extremely important. First, he was financially interesting; allowing us developing other projects, but he also gave us **credibility** in the market... We **went up several levels** in one go... we were awarded several **prizes** for this project implementation globally [...]. But it demanded a **great effort** from us... many sleepless nights...» (#26: Digital Technologies; B2B) {Emphasis added}.

«We managed to have this **important contact** through a mutual friend, and we realized that we needed to project a good image and give him a quick response. So, we decided to offer a lower price than we'd wanted to propose, in order to gain the client... but **we gave everything** of ourselves... that is, during those days we worked... like 20 hours a day... we wanted to really impress the customer [...]. This was a very important customer, but at this point we have to do that with almost every customer. We have to create a portfolio, so...» (#32: Digital Technologies; B2B/B2C) {Emphasis added}.

This need for presenting tangible proofs of competency, ideally assured by high profile customers, is extensible to foreign markets, as conveyed by the following quote:

«In an international trade fair, one thing that they [visitors] always asked was: “where is it implemented here [foreign country]?” We explained that it is implemented in Portugal, but they wanted to know: “No, no... here, where is it implemented here?” This is the same problem in every market. Here in Portugal, we also had that problem at the beginning. Once that barrier is overcome, I am convinced that it will be a rapid process» (#28: Engineering; B2B).

Therefore, acquiring the first customer or, even more beneficially, a big or prominent customer, was found to be critical for new firms, as it helps leveraging future sales. Impressing the first customers may result in a twofold benefit. On the one hand, the customer is rewarded for believing in the young company's unproven products or services, and he/she will more probably repurchase. On the other hand, and consequently, he/she can offer positive references, confirming the importance of word-of-mouth-marketing communication as an effective entrepreneurial marketing strategy (Stokes & Lomax, 2002).

In fact, it is commonly mentioned by participants in our study that one relevant part of their new customers are indicated by existing ones or, alternatively, by someone who knows well the competencies of the team, such as friends or mutual suppliers or partners, for instance. In that sense, the acquisition of an important customer can be considered a marketing communication action, as it is often suggested to be a good investment resulting on future market conversion, as portrayed below:

«At the beginning, sometimes we have to pay to work. It is important to work in a case that will be a reference for future clients. If the work is good, the first customer will lead to other clients» (#40: Business Services; B2B).

«The result of our work is very important, being fast, having quality, these are all important things that generate references» (#32: Digital Technologies; B2B/B2C).

Knowing, then, that there is a trust barrier to overcome, entrepreneurs in our study tend to devise ways to push the existing experience to convert prospects, whenever it is possible by inviting them to observe first-hand their products at work. In the case of some products or services, such as web design, it is easier, as the access to the final product is observable. In the case of industrial products and systems, however, entrepreneurs may also ask their customers to receive new prospects in their facilities. One of the CEOs that stated he promotes these visits says that:

«In the beginning, this was very necessary, because we were unknown. This was almost mandatory, because they [prospects] had doubts. They didn't know us from anywhere, we didn't have references... today this is less and less necessary [...]. Now they need less to validate on the ground our capabilities» (#28: Engineering; B2B').

This can be done due to the proximity that is often created with customers. However, this practice is not always possible, depending on the industry and level of confidentiality. These results confirm the importance of the 'people' P in entrepreneurial marketing (Kolabi et al., 2011; Martin, 2009; Zontanos & Anderson, 2004). Social capital has been proved to be one of the most important assets of the entrepreneur. This includes being able to win customers' loyalty to ensure that they are prepared to repeat the purchases and recommend the firm, which has a positive impact on the new venture success (Hormiga, Batista-Canino & Sánchez-Medina, 2011). The next section expands this idea by showing the role of people and influencers in the new firm's marketing process.

9.3.2.3. People and influencers

People are a pervasive component of marketing of the studied new firms. The term people is used here to represent every person that affects or is affected by the marketing of the new venture, other than the main targets, which are the prospects and customers.

People, especially the founding team, not only play a crucial role in designing and implementing the unique selling proposition, but they also translate their personal characteristics to the firm as a whole, and contribute to the imprint that the company leaves in the market. In other words, people in the new company, with their personalities, talents and flaws, help creating the firm's positioning. This has a particularly strong effect in new ventures, as initially everything, from products to processes, from relationships to behaviours, is being created and adjusted.

The influence of personal preferences and backgrounds on decisions is very noticeable in the studied new ventures. Previous studies had already confirmed the influence of entrepreneur's personal values, vision, experience and general knowledge on the way marketing is implemented and firms develop (e.g. Ling, Zhao & Baron, 2007; Hultman, 1999) and the effectuation theory emphasizes the importance of *who I am* as one of the means that support the creation of future effects (Dew et al., 2008a). It was noticeable in our sample that when the companies started evolving in a dynamic way, they gained the shape of the circumstances and contingencies and also the profiles

of the people that decide and make the dynamics flow every day. For instance, one CEO described how his company's playful attitude was formalized in the company's website, through an image that emerged pretty much randomly from a joke of one member of the team. He tells the story:

«As a joke, one of our colleagues brought some glasses he bought in the street. One of my partners, that takes photos as a hobby, started taking pictures of us wearing the glasses and we came up with the idea of putting them online [in the company's website] [...]. It turned out creating an image of something like: "look at those goofy..." and that had a very positive effect...that is... those [customers] who didn't see it as a funny thing from a very serious business... a valid way of being, stopped contacting us. And that's all right! Before, we had little boring works, and now we haven't these anymore. We started having more requests for more creative things. These are also serious works but much more fun to do...» (#16: Digital Technologies; B2B).

Another new venture uses the fact that its team includes a very specialized and important expertise to draw a line between it and the competition for the equivalent level of resources and capabilities. The CEO underlines that:

«Not a lot of micro-companies have a creative director, someone that has the job of thinking the experience, the creative part of the product... we use that as a part of our differentiating message, relatively to the other companies» (#6: Digital Technologies; B2B/B2C).

In fact, we were able observe that the whole marketing of the company is influenced by and influences people that are somehow linked to it. In a sense, people are an important input of the new venture's marketing activities, but they also result from them, meaning that entrepreneurial marketing activities have an interesting effect on attracting collaborators and partners.

People, as a marketing input, are referred by some interviewees of our study as having a paramount importance on the commercial success of a new venture. People are determinant for the configuration of the product and for the relationship to be established with the market. For that reason, the configuration of the team and its evolution can have major impacts of the way the new venture's offer is created and evolves. The configuration of the starting team is designed taking into account the *apport* that each member can add, as portrayed in the following transcript:

«It was evident for me that we needed a doctor, and that's why Dr. [name] is on the team. It was necessary a physician that would give us some credibility, because we had solutions closely related with [medical specialty]. So it was convenient and I made that effort and he became our partner. Also, there is a business woman that also could help with her experience and expertise in terms of work models and so

forth. Additionally, we needed someone linked to creativity and innovation. A start-up like ours is a continuous creative process...» (#18: Textiles; B2C/B2B).

Therefore, the right people, the right team will determine the quality of the product. In fact, there is an interweaving between the offer of the company and its creators. That is why recruitment is considered a critical moment in the life of the firms, as the following transcript shows:

«Another important thing is the recruitment process [...] All people are here through references. Here the CV is not important, but rather what they know doing [...] and the culture and lifestyle [...]. If we hadn't this amazingly relaxed environment our ideas wouldn't be as good and our products wouldn't be as great, I'm pretty sure of that» (#36: Digital Technologies; B2B).

In one case, the fact that the team members were not well aligned caused to waste too much time and delayed the business development cycle, as expressed by the CEO:

«The team did not work. Lots of time lost in solving team problems. The team was too big and everybody had equal shares although they had different motivations. That created several problems and delayed the speeding up of the company» (#9: Textiles; B2C).

Another important influence worthy to mention was detected in our study, which is of people who, neither being direct collaborators of the company nor customers, believed in the company's offer and helped conveying the message to the market. This is the case of influencers as catalysers. They are normally nodes of a big network that potentiate the power of dissemination. In our study, two types were mentioned: prescribers and brand ambassadors. Communication through this type of influencers is considered efficient and effective by interviewees. On the one hand, it allows multiplying the power of a marketing message by the number of relationships that the spokesperson has, reducing drastically the effort of the company. On the other hand, it conveys credibility, reducing the liability of newness. Instead of being asked to believe in an unknown brand, prospects are reached through their opinion leaders, in whom they trust. The following transcript presents an example of the acknowledgement of the importance of this type of communication.

«Since the beginning of the company, we thought that the prescribers and influencers would be critical [...]. So, we defined in our business model that the main decision makers, the ones that would help us in our success, would be the medical doctors, because the user trusts their opinion» (#7: Textiles; B2C).

Being able to deliver a strong and genuine message through influences is related to the previous discussed topic about having a differentiated and compelling product or service, with the

potential of attracting real admiration and belief from them. Influencers are great leverages to new companies, but they are also difficult to convince, either because they are very demanding or because they often are solicited to support all sorts of proposals and, due to that, are highly selective. Yet again, the product needs to have a strong communication power and even brand evangelism capacity, in the sense that it has to be able to convert influencers in brand advocates. It is important that the new product has an appealing value proposition. With not much to offer as compensation for referrals, the new firms rely on the engaging capacity of what they have, which is their offer. The following excerpt illustrates the decision process for choosing a brand ambassador by one of the studied companies. In this case, the fact that there was empathy between the new venture's team and he weighed more than his objective capacity to reach a vast public:

«[...] but we do not focus only on ambassadors with great exposure [...] there is the case of [name] that we liked him, although he hasn't many fans. And it was also important his willing of being an ambassador, that is, the passion he showed for the brand » (#1: Textiles; B2C).

From the perspective of people as being an output of entrepreneurial marketing actions, they can also be assessed in terms of their effectiveness in attracting the best candidates from the recruitment market. This is very relevant because, just as it is difficult for new firms to build enough credibility to attract new customers, it is equally hard to convince partners and people to join the team. As Aldrich and Fiol (1994) note, entrepreneurs «must interact with extremely sceptical customers, creditors, suppliers, and other resource holders, who are afraid of being taken for fools» (p. 650).

Some interviewed entrepreneurs pointed out that, before any given proofs, they felt a general disbelief that they would be able to beat the odds and make the new venture succeed. This lack of trust extends to the potential candidates to join the company. For the prospect candidates, working in a new venture is perceived as presenting higher risks, particularly of losing the job and not being paid, than in established, well-known companies. In addition, they tend to consider the good reputation and extensive brand awareness of the employer as an extra-benefit that adds to the remuneration, which are perks that the new company cannot offer.

Thus, the impact of marketing actions is not only assessed by their ability to reach the customer's market. Marketing of new companies is also highly focused on the recruitment market. In fact, the same activity may produce positive effects on both markets altogether, as the following transcript evinces:

«It [communication action] didn't have a great impact for customers, since we hadn't great visibility at the event, because we were a supplier, not a traditional sponsor. However, it had a huge impact at the human resources marketing level, if we can call it marketing... That is, it facilitated tremendously the recruitment in the next years of people with the profile that we needed [...]. We created our team largely with people that were volunteers at the event. Considering the size of the company at that time, this was a very important event» (#12: Digital Technologies; B2B).

As noted before, entrepreneurial marketing based on people is not only very effective, but also efficient, particularly the communication actions through influencers. In fact, the use of creative low-cost and low sophisticated marketing tactics by the participating entrepreneurs is in line with previous findings in entrepreneurial marketing literature (Gruber, 2004; Morris, Schindehutte & LaForge, 2002). Low cost communication tools, particularly using the internet, are focused in the next section.

9.3.2.4. Internet and other low cost tools

In our sample, the internet was considered to be a very important communication tool, particularly at the institutional level. The creation of a website or the launching of a new version of it, were even referred as being critical events. Moreover, the website seems to represent a pre-condition for further communication actions to be launched. Being a platform for establishing the company information basis, the company website is perceived as helping consolidating other promotion actions, since it allows the prospects to access detailed information that publically corroborates the promises being made. One of the interviewees admitted that every communication efforts were being delayed until the website was ready. In his own words:

«It [the website launching] is not a very relevant milestone in itself, but it helped unlocking a number of situations. In several occasions before, we decided to postpone an initiative [communication] because we felt we needed the website to support it. So, from now on we don't have any more excuses [...] it was a *sine qua non* condition to go forward with other things» (#20: Biotechnology; B2B).

Taking this backup support functionality into account, in terms of contents, all the information that helps showcasing the value proposition and granting trust is privileged in the website. The analysis of the studied companies' websites revealed that proving the value promised may consist of: a) displaying the portfolio, when it exists and is showable, b) describing the capabilities of the team, especially when the members have scientific background and credible and recognized work, such as publications, even when not directly related to the products to be offered; c) listing the prizes awarded

for the company's idea or products or funding granted; d) highlighting high profile customers; e) presenting case studies and/or video demonstrations; f) listing partnerships; g) exhibiting affiliations with reputable organizations or institutions; h) revealing involvement in R&D projects. These are all pieces of information that help building confidence on the market and add value to the products and services that are, usually, also displayed on the website. In fact, the new firms' capabilities amplification power of the website had been already cited during the pilot interviewing phase of the research. One of the participants said:

«We have to portray the idea that the company is strong... If the website gives the idea that we are a company of '500 people' it conveys an image of a certain strength. Whoever contacts us usually likes it, because they like proven solutions. They like companies that are in the market for a long time, because supposedly only who has the best solution survives in the market and will probably continue to exist. So, we have to create an image that we are a bit more 'muscular' than we actually are and present us a little 'taller' than we really are» (#01: Engineering; B2B).

At the product level and as a distribution channel, the internet is also privileged. This option is seen by several participants as the most appropriate, since sometimes the new company targets niches and customers are scattered, making it difficult and expensive to reach the market, for example, through sales personnel. Therefore, there is a cost efficiency logic associated with the use of the internet channel. The following transcript illustrates that aim:

«It would be more expensive to approach the market in other ways, such as having sales people going to the [prospects]. So, we approach the market via internet. We created newsletters and we sent them to contacts we compiled and we also invest on online advertising [...]» (#21: Engineering; B2B/B2C).

The website and electronic communications are also considered very important to the rapid internationalization process, as they create bridges to distant customers, otherwise hardly achievable at an affordable cost. The following transcript illustrates these advantages:

«The product website was extremely important to give it global visibility. The company was global from the beginning. Our second project was in Turkey due to the website... the customer came to us through the website [...]. The website is very important to generate first contacts and to follow up [...]. For existing customers, the e-mail newsletters are also very important [...] because they go to every part of the world. For an international business, the internet medium is very important and it is highly affordable» (#26: Digital Technologies; B2B).

Besides the more conventional uses of internet to promote new businesses, such as the ones indicated, namely: developing an institutional website, opening an online store, establishing e-mail communications and e-newsletters and advertising online, we were able to identify other creative low cost actions upon this medium. Mainly out of necessity, some companies have to discover effective and low cost ways to face difficult times and internet is an easily accessible resource. Typically, these resourceful ideas are applied after a starting period when everything seems to go well.

In fact, we found a pattern shared by some companies, particularly among those operating in the business-to-business market: they are able to start with a small but regular flow of customers allowing full use of the productive capacity, but at some point they are no longer able to maintain that constancy. This apparently auspicious initial situation may be explained, on the one hand, with the fact that the response capacity of the company starts small, and, on the other hand, typically, in early stages companies benefit from their personal and direct contacts and pre-commitments achieved during the validation phase, and also from the unexpected visibility achieved through media or awards that create a pull effect. This may be potentiated by references and recommendations of the very customers. However, as the firm grows in capacity and the more accessible or innovation receptive market is served, companies may experience a retraction in demand. Sometimes they find themselves confronted, for the first time, with the lack of projects to work on and no plan B to implement, as the following transcript illustrates:

«We have never made much... we always received work requests... but maybe it's time to start doing something more...» (#24: Biotechnology; B2B).

As the requests from the initial markets start to fade, this momentum must be maintained with more pro-active initiatives. Companies may turn to what seems to be the easiest, most immediate and cheapest solutions they can find. For instance, one common action reported by three of the participating companies, consists of applying for, what are intended to be, job offers online. Especially in more creative areas, there are several international job markets online, usually used by freelancers to publicize their competences and companies to find short-term service providers. These platforms, however, allow start-ups identifying specifically the prospects that have the need that they can solve. The following transcript describes how entrepreneurs had this idea and the results obtained:

«It was an accident, I think. It was out of desperation... one day he [the business partner] came to me and said that he started applying for jobs internationally... something made sense, that day [...] this was

something that didn't ever cross our minds... and we've got great results! I made about half a dozen applications, and from those we had two with immediate responses... from people saying 'next week I want that...'. And we went from needing to beg our domestic clients to pay their debts to foreign clients that pay in advance... these two clients are still those that give us the enthusiasm [...]. These are very big and important clients that emerged from chance» (#11: Business Services; B2B).

These actions are very cost-effective, not only because they require very little resources to be implemented, but also because they target the prospects with higher probability of being interested in what the company has to offer. Moreover, the firm has the advantage of being able to tailor the proposal to the specific characteristics of the prospect, which can be known in advance. This allows having higher rates of prospect conversion than the regular database marketing actions, due to the fact that the specific and differentiated solutions offered do not target large segments. One interviewee describes how he prepares himself for approaching the prospect in a one-to-one basis:

«Before contacting him, I research him... And then, I mention a project that he is developing... or something like... I see a piece of news about a particular company [prospect], being about an expansion action, or being about a less than positive moment... and I create the communication totally focused on his interests and needs, identifying where I can help him. This isn't standard mail. And also, I always direct the communication to a specific person, normally the more interested person in what I have to propose» (#40: Business Services; B2B).

However, some products, especially if they target larger and more homogeneous markets, may benefit from a greater exposure provided by mass communications, which most times are hardly accessible to small starting up firms. A way to lower the costs of communicating through more resource demanding media is through partnerships, as we found in our sample. When, after experimenting to launch a product by their own means, the results were unsatisfying, for one of the interviewed entrepreneurs the following decision was not adding money to access more expensive media but, instead, to create partnerships that allowed complementing the needed resources while also sharing the risks. He asserts that:

«We realized that it is very difficult to make a sales champion... [...]. I believe that my product is good, but it needs marketing. We aren't doing that all alone, we're going to team up with a partner with marketing strengths» (#15: Digital Technologies; B2B/B2C).

As it was mentioned before, sometimes companies cope with their liability of newness by targeting first prospects that entrepreneurs know personally. That helps translating the credibility of the person of the entrepreneur or his/her team to the product or service being offered. Thus, as it

would be expected, one way of reaching the market is through networking and use of social capital, which is a fairly studied topic within entrepreneurship (for some reviews see Gedajlovic, Honig, Moore, Payne & Wright, 2013; Slotte-Kock & Coviello, 2010; Hoang & Antoncic, 2003; O'Donnell et al., 2001).

For instance, it was referred during the interviews that one of the positive outcomes of being enrolled in training programs such as MBA is its networking potential, as the following transcript illustrates:

«I had the full notion that the investment of my MBA could be quickly returned. It wasn't intentional, I didn't enrol in an MBA with this in mind, but intuitively I knew that this would happen. Let's just think for a minute. I am going to spend 15 or 20 thousand euros in something but I will reach places that I wouldn't otherwise. In each MBA there are about 80 participants... two years later I had my MBA paid with only the businesses I made through the contacts created there» (#37: Business Services; B2B).

Another way of establishing bridges with the market at an affordable cost often referred by participants is through events. In our study, these events encompass very diverse situations, such technical exhibitions, cultural or entertainment happenings, conferences, and trade fairs. What is worthy to note is that these market binding activities rarely serve one purpose only. Most times, events are opportunities to undertake market and product validation, as already described, to reinforce the network and to find important partners that amplify the business potential, as the transcripts bellow illustrate:

«It was there [event the company sponsored] that we accidentally knew our current photographer. She is key to our brand; she brought us incredible quality...» (#1: Textiles; B2C).

«We were invited to participate in the harvests fair and it was among onions and potatoes that we met the person that would change everything...» (#31: Biotechnology; B2C/B2B).

Regarding events marketing, it was possible to observe that the recurrent presence of the effectuation affordable loss principle is also present. The option is generally not to invest much in few activities, but to invest less in several different alternatives to assess effectiveness with low cost, even when this intent implies other costs. That situation is exemplified by one of the interviewed entrepreneurs, who, before investing in a presence as an exhibitor in an international trade fair, in Brazil, invested less on a trip to visit the fair in order to personally assess the potential advantages of making a future larger investment, as he tells:

«We were there to understand the size of the fair... whether it was worthy investing there, how the market is ...» (#28: Engineering; B2B').

Most actions described are also included in the managerial marketing textbooks. However, the predominance of this kind of actions over others also prescribed, such as advertising and sales promotion, for instance, was evident in our sample. Furthermore, the logics underlying these decisions are also different. It was possible to observe several evidences of the use of the affordable loss, leverage contingencies and partnerships (Sarasvathy & Dew, 2008; Read & Sarasvathy, 2005; Sarasvathy, 2001) in the actions described. The experimental approach and the absence of planning and, sometimes, even a clear intentionality and a lack of sense of what the outcomes could be, are also distinctive in most communication approaches used. The main benefits of these actions are related to the cost and the adequacy to small and specific targets. We also detected a strong focus on acquiring credibility to gain legitimacy, understood here as «an opportunity-enhancing characteristic that results from customers perceiving firms as competent, effective and worthy» (Nagy & Lohrke, 2010, p. 192). The summary of these actions are presented in Table 9.2.

Table 9.2. Summary of tactics used by participants to reach the market

Tools	Benefits	Difficulties
Media references Novelty attracts media attention	Large diffusion at low cost Create brand awareness and foster trust in prospects	May require some availability of time to respond to media requests Rarely have an immediate effect on sales
<i>Productisement</i> Product or service and first customers are communication tools	Creates trust on market Products are guarantees for the new company competencies Specially high profile customers help creating portfolio and endorse product and company legitimacy Generates positive references	Depends on being able to first showcase the product and on converting first customers Takes long diffusing the message Necessary to invest on product development to avoid failing
People and influencers Using influencers as channels adds effectiveness and efficiency to the communicating efforts	Influencers have credibility that new ventures' lack and the power to diffuse the message at low cost Entrepreneurial marketing communication actions are also used to attract collaborators People helps defining positioning	Influencers' support is frequently sought for several other new product launchers Necessary to be able to present a very appealing value proposition that generates genuine willingness to support
Internet and other low cost tools Inexpensive ways to experiment what really works for a specific product/market pair.	The company website is a staple. It is an inexpensive way to make the information about the company and products/services broadly available. Other low cost actions allow experimenting effectiveness and minimizing risks and serve purposes other than communicating or selling	Actions are contingent and sometimes their whole potential is not explored

After starting focused on a few, or even a single, product/market pairs, the entrepreneurial marketing process of the studied companies typically knows an expansion phase, geared, most of the times, by contingency leveraging, affordable loss and partnership building principles. The growth is somewhat haphazard as new companies, especially the more innovative ones, are still learning what really works in the market. The next phase of the entrepreneurial firm involves a new perspective, which may even mean having to cut down some previously incorporated products or business areas. The next section details this transition.

9.4. Refocus versus expansion

It was possible to observe in our sample that, at some point of the new venture development, entrepreneurs may profit from portfolio expansion and markets diversification, taking advantage from opportunities that arise. Some entrepreneurs see such diversification as a way to monetize their acquired skills. Expansion, however, also encompasses several inefficiencies resulting from the growing complexity and lack of focus. Therefore, we could also detect that, after some time growing in a fuzzy way, some companies made a strategic change of path, refocusing on fewer offers with higher intentionality and with the objective of maximizing returns. According to participant entrepreneurs, this change of course can only be made when the concern about the financial sustainability of the company no longer exists. Additionally, we observed this change in the way decisions are made and also on the marketing approach only after entrepreneurs have acquired a fair amount of knowledge about the business and the markets.

We were able to see those changes in some more mature participating companies. For instance, after about ten years from the inception of the company, the predominant logic of decision making of one of the interviewed entrepreneurs has changed. Instead of being receptive and welcoming all new opportunities, the CEO started to privilege specific targets to focus on. The interviewee presented a pretty good explanation for this change, as reproduced below:

«It must be us on **control** of the path of the things and not things controlling our path. This means sticking to a line and accomplishing it [...]. Start-ups don't do that or hardly do that [...]. It is like that **out of maturity** and **being able to afford** that luxury... because there were some moments when we needed to **grab everything**. [...] at the end of the month it was necessary to be able to pay the bills and pay everyone, so, what showed up was perfect. Now we can afford that luxury, so we say... 'no, we follow that line', and 'I'm **not interested** in the rest'» (#26: Digital Technologies; B2B) {Emphasis added}.

Another entrepreneur confirms that, also in the case of his company, they started by leveraging ever contingency from which they could benefit. However, he concluded that this process can be painful, inefficient, and result in diluting competencies and loss of competitiveness. First the company opened, as much as the contingencies allowed, the reach of its activities, but then the entrepreneur decided to focus, as he describes in the following transcript:

«When we start we have no idea what it is to be an entrepreneur or what it is to have a company. So we were banging our heads for three years... 'I go here, I go there, I make this, I make that'...That's when I realized that I did everything but I didn't do anything right. So I stopped and said: 'like this it doesn't go...

our profitability is very low, there isn't a growth consistency, there isn't a long term plan or a medium term plan... there isn't any plan at all. We are just responding to fire calls and what's left at the end is profit...' but that's a bad idea...» (#27: Digital Technologies; B2B).

Thus, after a period when knowledge is low, both about the market and the very business processes, when there is a considerable amount of pressure to start the business and to put it to function, and when marketing decisions, namely regarding the product/market scope, are pretty much driven by these circumstances, some of the interviewed entrepreneurs indicated that they started deciding in a more purposive way. At this point, marketing decisions start to include targeting and positioning options, as actions begin to reflect a strategy and, in some cases, planning starts to be made.

Such process follows a contrary pattern to what is commonly recommended in marketing textbooks. First, instead of having a broad view of the potential market, segmenting it and targeting the intended segments, participating companies start with small niches or just a few customers, expanding subsequently in several directions as opportunities arise. Then, they tend to refocus on the most attractive segments, selectively eliminating the others, in a process of *demarketing* (Kotler & Levy, 1971), instead of developing strategies for growth and diversification, as it is typically recommended (Ansoff, 1957). At this point, principles of causal rationality (Sarasvathy & Dew, 2005; Sarasvathy, 2001) gain more prominence. For instance, when deciding what segments to focus on, entrepreneurs may use the expected return principle, and may base decisions on existing knowledge and competitive analysis, as the following transcripts suggest:

«I looked at our products and tried to see which one had **biggest potential**. 90% of our effort will **go to that product** [...]. We don't do pretty much anything besides that, we reject everything that is *ad hoc* jobs, unless it is a very **interesting proposal**» (#26: Digital Technologies; B2B) {Emphasis added}.

«When I started the company, I had this idea 'let's grab everything! We are good at everything!'. But now I decided to focus in [specific area] because I have **information from market** saying to me that there is a real need and that **we are the best here**» (#40: Business Services; B2B) {Emphasis added}

Starting the business eager to seize any market opportunity that emerges, without making a more detailed profitability analysis, may be explained with the low business experience and marketing knowledge of some entrepreneurs. In fact, some evidence seems to point towards that direction, as it will be described ahead. However, what is interesting to note is that it is possible that, even when decision makers are well-equipped with marketing training, they go through a dispersal phase, only

that doing it purposively. The following quote, from a marketing proficient entrepreneur, who also believes in the benefits of planning, adds evidence to such a suggestion:

«In the beginning we had a more **broadband strategy** to cross the valley [referring to the death valley]... back then we had to use all the floats available to start creating dynamics and rhythm, contacts to generate business...but **then we funnelled down**. This strategy was **defined from the outset** in the business plan» (#42: Business Services; B2B) {Emphasis added}.

As mentioned before, for the studied companies it is considered a very difficult, if not an impossible task, to define the market positioning from inception. This results from a sort of identity quest that new companies endure during their early life. In a sense, companies start pointing to several directions and experimenting several markets and different solutions; and this is a noisy and unstable process that later fades naturally, allowing envisioning an emergent positioning. Results of the study suggest that this positioning is much more freely attributed by the market than it is controlled by the company.

The indications that firms offer to the market to feed the spontaneous positioning are pretty much related to the features of the product and the characteristics of the most prominent customers. One of the interviewees shared his vision on the reason why it is so hard to define the brand positioning in the early life of the firm:

«In the beginning a start-up doesn't have comfort to do that [consolidate the company positioning] because it is still **trying to find what is its differentiation** and without that it can't define its positioning... we are good in **several things**, but where are we really, really good? Sometimes we are even afraid to say that we are good in something because... we are good in other things. But there is a moment when **the market is going to say** where we are good and it **doesn't have to fit what we think**. We have to adapt to the market» (#26: Digital Technologies; B2B) {Emphasis added}.

Hence, after a sort of discovering period, companies may reach a marketing stabilization platform from where it is possible to start using different tools, including those that would demand heavier investment, since the uncertainty is lower in general terms. The emphasis is now placed on capitalizing the acquired potential, as reflected by the following excerpt:

«There is already a public recognition of our work, big customers, certifications, now it is important to capitalize that. As known is the brand, the higher is the product value. We are now in this phase, in terms of marketing, it is the point of brand valuation. And how do we generate that awareness? By winning top customers [...] and advertising» (#27: Digital Technologies; B2B).

Results of the study indicate that there is a more unstable state of the company, during which there is a quest for the most fitting course of development. In a more mature state, companies can devise their way more clearly and invest on known marketing strategies. Our findings suggest that these states, however, are not as much time-dependent as the lifecycle model implies (e.g. Kazanjian, 1988), as they are information-dependent. Throughout their path, experimentation, trial-and-error and improvisation, which are important forms of entrepreneurial learning (Miner, Bassof & Moorman, 2001) play a more important role than planning, as they are more suitable for the entrepreneurs' intents and circumstances. Planning is still attributed several benefits when the circumstances allow, although it is typically short-term focused. This theme is further explored in the next topic.

9.4.1. Short-term planning

Previous research has shown that planning, and marketing planning in particular, yields several benefits for businesses, especially the larger firms (McDonald, 2011; Dibb, Farhangmehr & Simkin, 2001). Our results show, however, that planning is typically not considered relevant by most participant start-ups, due to the highly turbulent, fast changing context and related lack of information, preventing the certainty and predictability needed to plan. This is consistent with previous studies showing that when uncertainty is perceived to be high, entrepreneurs are less likely to develop business plans (Matthews & Scott, 1995). Under those conditions, any plan that might be produced is, most likely, instantaneously obsolete. Much more appreciated are the capacities of being flexible and adaptable, because the very survival of the business is dependent on them. On the contrary, following a plan too closely is perceived to be risky, as some contingent opportunities may be missed if they do not fit the planned course. When talking about planning, some interviewees left transpire a certain discomfort, as if it was not an activity that fits naturally their flow of requirements. The following transcripts illustrate these ideas:

«Our business plan, as every business plan, was **outdated** after three months [...] we were aware of that after three months, but maybe it was outdated the next day it was done... We initially thought about other things, but we saw instantaneously that it would not be like that and **we corrected**» (#22: Business Services; B2B) {Emphasis added}.

«Planning **doesn't make sense** in a company like this, especially in our current world, when things **change so fast**. When we created the company, we had a business plan. But the business plan is **not a**

useful tool in the way it is made, because it gets **outdated** very fast. Within a month that information **no longer makes sense**. If we try to implement the business plan, **we can die from it**. We have to be careful about planning, because sometimes **it's a limitation**» (#30: Digital Technologies: B2B/B2C) {Emphasis added}

Underlying the planning activity is the assumption of being able to control, at least, the most important variables that converge to an intended goal. However, there is an apparent consensus in our sample about the fact that most situations that end by moulding the new venture are contingent and hardly predictable and controllable. Moreover, some entrepreneurs seem to face this uncertain context with normality, suggesting that they do not feel the absence of planning as something negative. Thus, being flexible to adapt to contingencies, being open to uncontrollable happenings, being focused on the short run and being practical when making decisions, privileging speed over perfection, are common themes in the interviewees' speech, as depicted bellow:

«You **can't control everything**. There are many things that I wasn't looking for... they **just happened**. If I wanted to plan and make things happen how they happened, maybe I couldn't... Of course this involves a lot of work and considerable thought, but we are very practical... our best ideas come from informal conversations... **things flow**. There isn't such thing as: "I am here, I want to get there, so I have to do that"...no, things flow, we just try to control some things» (#31: Biotechnology; B2C/B2B) {Emphasis added}.

«We came to realize that we planned and we planned and nothing went as planned [...]. We have to have **flexibility to adapt** [...] and we have to be very **practical**, not thinking on what is going to be in a 10 year period... we have to **think 'now'**». (#38: Biotechnology; B2B) {Emphasis added}.

When the plan is made, it is supported in information available at a certain moment. However, the most relevant information sometimes can only be obtained in direct contact with the market. Therefore, it is also not unusual that start-ups begin with a plan but soon leave it because new information suggests other strategies, including deciding which markets to approach. The following excerpt exemplifies that situation:

«When I created [the company] I planned to target small and medium sized companies. But, when talking to the bigger ones, I noticed that they are more receptive than the small ones» (#39: Business Services; B2B).

On the other hand, companies that never engaged in formal planning activities during their early lives do not necessarily sail without a compass. Due to their small size, it is possible for start-ups

to rely on the vision and intended direction of the entrepreneurs, as literature also suggests (Beverland & Lockshin, 2004; Hultman, 1999). References such as what is the type of clients the company aspires to serve, the brand values, which often match the founders' values, and the self-assessment of competencies are used to define a trail. Interviewees find however very useful to leave enough room within the envisioned trajectory allowing making needed diversions to take maximum advantage of unexpected situations. These ideas are reflected in the transcripts below:

«A real written plan, this company have none. However, we know what our **direction** is, we know the **brand values**, we know what **kind of customers** we want, we know in what **we are good**, and this is in our heads and **lead our decisions** [...] There is planning, but only in the **short run**. Obviously we have commercial objectives [...] but it is much more **iterative** and intuitive than planned» (#36: Digital Technologies; B2B) {Emphasis added}.

«I think that the **path** is possible to define... I think it is possible to define a **direction** and being **constantly opened** and predisposed to **change direction** inside that path» (#37: Business Services; B2B) {Emphasis added}.

The importance of having real and measurable objectives, at least in the short run, suggests that entrepreneurs understand the importance of keeping track of some marketing results in order to preserve the survival of the new business. Other than that may be considered an extra-benefit, as expressed in the following quote:

«We have no expectations, this is a test and we don't know how it's going to go. We don't know if we are going to sell a million or a thousand [...]. We do know how much we have to sell to have a viable business... and everyone knows the number that we have to reach each month to keep the business going. We know more or less where we want to reach, but it is impossible to predict the future» (#36: Digital Technologies; B2B).

Planning not only is not considered very relevant by interviewees in our sample, but also, in some cases, it is even considered dangerous, as it may restraint the freedom to act within an under-construction context. As suggested by the effectuation theory, there are several evidence in our sample that entrepreneurs, generally, believe that the future is created, resulting from an amalgam of experimentation, contingencies and interactions (Sarasvathy, 2001). The need for planning is not felt as the plan is devised on the go to take maximum advantage of an unknown future. Nonetheless, several participating companies had an initial business plan and several others have short-term indications for the daily activities. Additionally, we could identify several cases of companies that

developed a business plan, including a marketing plan, with the purpose of fundraising only, as the following transcripts show:

«In a first phase it was very **experimental**, without any written plans... we had market targets and we explored them. [...] The **planning happened** when we started looking for **venture capital** to fund the product development» (#26: Digital Technologies; B2B) {Emphasis added}.

«If we didn't have to make the business plan for the **purpose of raising money**, honestly I think **we never would do it**, because it is a hassle! We would intuitively reach the same conclusions but we would not write it in such a detailed manner [laughing]...» (#19: Biotechnology; B2B) {Emphasis added}

Thus, we can observe a chasm between the generally perceived benefits of planning for the real practice of the companies and the demands of the funding businesses or institutions. Contrary to what happens regarding other managerial marketing practices, we did not find many divergent opinions regarding planning in our sample. The exception is one only entrepreneur who shared that his company invests a lot on planning and on processes organization, considering that these allow grasping great advantages. He used an interesting analogy to describe the absence of planning and presented some benefits of doing it, as quoted below:

«This is like when we buy an appliance, we start pushing the buttons before reading the instructions manual and we never use the full potential, because we don't know what it is capable of» (#42: Business Services; B2B).

«Planning allow **anticipating problems** and enhancing the chance of **choosing the best option** to solve something, it helps to **monitor and understand the execution** and confront sensibilities. That is, it is not in the daily management that each one gives their opinion, it is in the planning and then everybody assumes the decisions made. It is a converging tool» (#42: Business Services; B2B) {Emphasis added}.

Although the mentioned benefits of planning are irrefutable, some of them, such as *choosing the best option*, not always can be possible due to the uncertain conditions previously mentioned. The results of the study show that, when done, the plan has to be open and flexible, short-term focused and small, reflecting only the most critical aspects that should be considered. We also observed that some interviewees found planning more useful in the pre-launching phase or in the early life of the business just with the purpose of organizing and reflecting upon the initial ideas. Literature also offers empirical evidence that engaging in pre-venture business planning increases the likelihood of firm persistence (Liao & Gartner, 2006). Participation in entrepreneurial training programs often allows doing such an exercise.

It was expectable that in more advanced phases of development companies would give more credit to planning, as the conditions start to stabilize to a level where some predictions are easier. However, planning was not identified as either being a critical event *per se*, or a worthy to mention consequence of one, in later stages of development. Future research should further explore this topic, as the explanations are not clear. The most obvious reason might be related to the fact that entrepreneurs acquire a management style, grown on uncertainty and lack of planning, that they transport during the time they run the business. Additionally, literature suggests that different assumptions about the entrepreneurial action may lead to diverging behaviours. Alvarez and Barney (2005) propose two different perspectives: the discovery theory and the creation theory. If the creation perspective is assumed, that is, instead of discovering opportunities, entrepreneurs create them, planning too early can represent a waste of resources or even be misleading and harmful.

9.5. Section summary, research propositions verification and hypotheses

This section focused on the marketing practices implemented by participant entrepreneurs, describing the entrepreneurial marketing process as it emerged from the study. In general terms, we observed that, although entrepreneurs apply several marketing activities that could be classified as managerial, due to their adequacy to the mainstream prescriptions, the overall process of marketing implementation follows a different pattern from the traditional marketing framework, which is consistent with some previous research (e.g. Morrish, Miles & Deacon, 2010; Stokes, 2002a, 2000b).

Contrarily to the managerial marketing framework, which starts by understanding the marketplace and the customer needs (Kotler & Armstrong, 2010), the entrepreneurial marketing process that emerged from our results often begins with the product or service development, for which a target market is still unclear, if existent at all. Instead of doing a previous market research, entrepreneurs typically release an unfinished offer, maintaining a rough status until it meets the market, which may be as small as one single client, with whom the new firm develops a learning process. At this point, entrepreneurs do not look for the most interesting market, but rather for the most interested market. Adjustments, then, begin to be made within a co-creation logic. The client helps redefining the product as much as the entrepreneur helps the client understanding his/her own need. The product or service starts acquiring more value as relational benefits add on. Then, new customers for the product are sought and the market starts to expand, contrarily to what happens

within the managerial marketing framework, where it is advisable to know the whole market first, apply segmentation strategies and only then target the most attractive segments. Expansion also happens through the amplification of the company's portfolio of offers, included to take advantage of some unexpected events. As the complexity grows and the first offers become more mature, young companies start refocusing and decision makers thinking in a more strategic way and implementing some managerial marketing practices. The summary of the differences between entrepreneurial and managerial marketing is presented in Table 9.3.

Table 9.3. Summary of the differences between entrepreneurial and managerial marketing

Process	Entrepreneurial marketing	Managerial marketing
Product development vs. market needs	<p>Start with spontaneous internal ideas; competencies or technology; identification of own needs; personal preferences.</p> <p>Start with existing means.</p>	<p>Start with identification of market needs and then setting goals and planning the offer.</p> <p>Objective: to be profitable in itself (maximize returns)</p>
Product-market fit vs. market research	<p>The priority is to validate the assumptions. Both prospects and experts are suitable sources of information.</p> <p>Products, services and business models are left intentionally unfinished to accommodate changes based on feedback (co-creation)</p> <p>Heuristics can be used to confirm assumptions such as 'if there is low competition, it must be a good opportunity'</p> <p>Partnerships are made to test the product</p>	<p>Market is researched in order to discover needs, understand the buying behaviour and define the offer features.</p> <p>Information is used to support the strategy definition process and marketing mix decisions.</p> <p>(exploit previous knowledge)</p>

Table 9.3. (Continued)

Process	Entrepreneurial marketing	Managerial marketing
Market expansion vs. market segmentation	Start with a small market and expand as market solicits and contingency opportunities arise (leverage contingencies) Objective: to diversify the sources of income; to fund other activities (bootstrapping) (affordable loss – lower the risks) Expansion is not planned and creates complexity and inefficiencies, seen as necessary ‘evils’ for booting the business	Know the whole market, segmentation, targeting and positioning (exploit previous knowledge)
Refocus vs. expansion	Some offers and business areas are purposively and selectively reduced or eliminated based on information gathered with experience (<i>demarketing</i>) Causal principles such as competitive analysis and goals definition start to apply	New segments for the existing solutions, new solutions for the existing customers and new solutions for new markets allow company to grow.

As it would be expected, the majority of the decisions analyzed (91 decisions, representing 62.3%) are associated with entrepreneurial marketing practices. However, it was also possible to identify 55 decisions (37.7%) resulting in practices consistent with managerial marketing. Therefore, results provide evidence **confirming the first research proposition** (*cf.* 5.2. Marketing practices and decision making logics, p. 82), which established that entrepreneurial marketing follows a process that differs from the managerial marketing process, but some managerial marketing practices are also incorporated. Results show that entrepreneurial and managerial marketing have different focuses and involve different decision patterns. Thus, the following hypothesis (H) is suggested:

H1. Entrepreneurial marketing is associated with types of decisions that differ from those associated to managerial marketing.

Results presented in this section also provide fairly strong indications of the consistency between entrepreneurial marketing activities and the effectual reasoning. Conversely, the data suggest that managerial marketing actions lay on a causal rationality, which **adds evidence to the second research proposition**, holding that marketing practices implemented by entrepreneurs are influenced

by their decision logics (*cf.* 5.2. Marketing practices and decision making logics, p. 82). Therefore, we hypothesize that:

H2. Marketing practices are associated with decision making logics.

H2a. Entrepreneurial marketing practices tend to be used under an effectual decision making logic.

H2b. Managerial marketing practices tend to be used under a causal decision making logic.

The association between marketing practices and decision logics is tested in the quantitative analysis section of the results presentation. Before that, we intend to deepen the understanding about the decision processes underlying the presented marketing practices. How do entrepreneurs explain their decisions? How does the decision process unfold? How do the principles of effectuation and causation apply in practice when making marketing decisions? How do these logics interact with each other? These are some of the questions that we seek to answer in the next section.

10. The decision process (how)

In this section we explore the rationale underlying marketing decisions of the participant entrepreneurs. The analysis of the decision making process follows the framework provided by effectuation theory (e.g. Perry, Chandler & Markova, 2012; Chandler et al., 2011; Sarasvathy & Dew, 2008; 2005; Read & Sarasvathy 2005; Sarasvathy, 2001). Whenever we identified that decisions layed on the affordable loss, leverage contingencies or explore partnerships principles or that the entrepreneur followed a non-predictive control logic and started with a given set of means with a creative and experimental attitude, they were classified as effectual. On the opposite direction, when it was possible to recognize a stronger focus on maximizing the expected returns, on exploiting previous knowledge and on competitive analysis, as well as on a prediction approach and on setting goals as the starting point for a marketing decision process, the decisions were classified as causal. This section describes the decision process of the interviewed entrepreneurs according to such a distinction.

We also explore the decision making process in terms of its dynamics over time. The influence of conditions to decide on how marketing decisions are made, which are addressed in more detail in the next section, is explored as well. Such exploration contributes to add evidence to verify the third research proposition, which suggests that uncertainty constrains the marketing decision process and that under higher levels of uncertainty entrepreneurs tend to apply effectual principles, whereas under lower levels of uncertainty causal principles may be applied. We further propose that decision logics may change as uncertainty levels change.

The relationship between logics, marketing practices and conditions to decide are tested in the section dedicated to the quantitative analysis of the data. This section qualitatively explores the propositions, being its primary aim to deepen the understanding about the marketing decision process of the entrepreneurs. The structure of data exploration is represented in Figure 10.1.

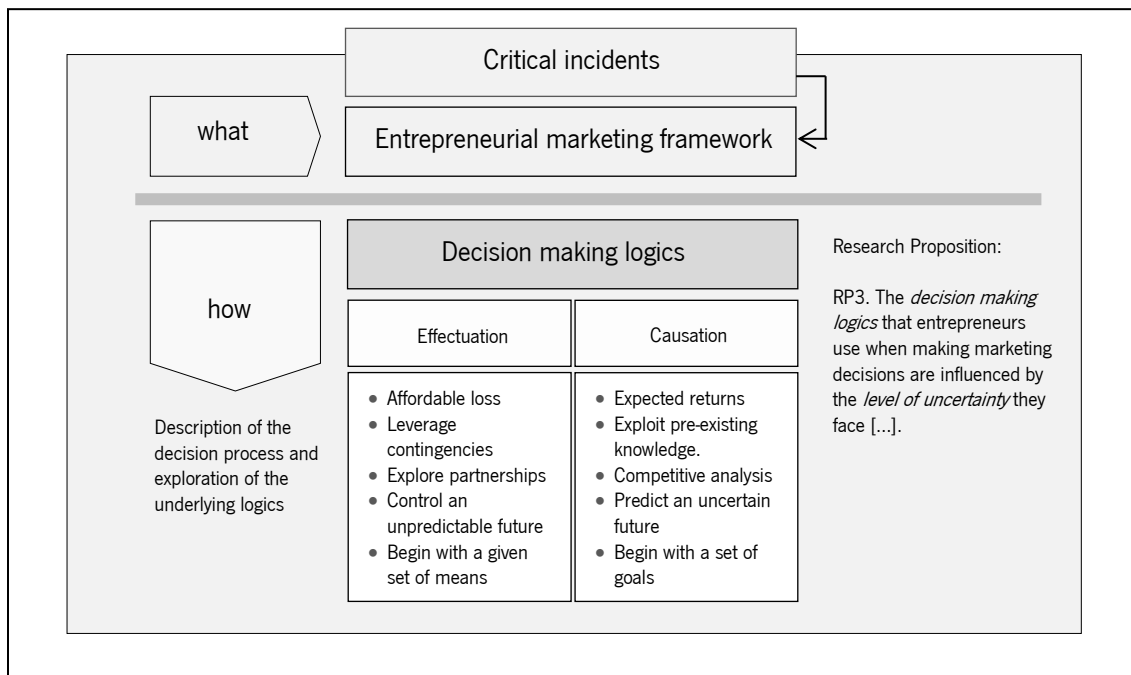


Figure 10.1. Decision making process exploration

10.1. Effectual marketing decision making process

Although we observed the expected presence of the effectual perspective underlying the decision making process, we also found a simultaneous use of the causal logic when making different decisions. In fact, most interviewed entrepreneurs reported a mix of situations in which each one of the logics is identifiable. This result shows that the same entrepreneurs may use different logics under different circumstances.

Concerning effectual decisions, results confirm that they are generally associated to situations of higher uncertainty, as proposed by effectuation theory. This relationship is further explored in the section dedicated to quantitative analysis of the results. In such circumstances, since predictions are very difficult, several options may be experimented and decision criteria must be loose to allow accommodating changes and new information as it arrives later in the process of taking new ideas to the market. The following transcript reflects this idea:

«Right now, we keep open a big part of the strategy because it is not 100% defined how the brand communication will be. We must follow what clients are; the clients are also going to define the brand. We

might think that we have a 'blue' brand but customers all want 'green'. We have to adapt and offer to customers what they want» (#1: Textiles; B2C).

Under high levels of uncertainty, the effectuation principles seem to be considered by the entrepreneurs in our sample more appropriate for the decision making process. The next topics describe the use of different effectual principles and logic by interviewed entrepreneurs when making marketing decisions.

10.1.1. Invest little, experiment a lot

The results of our study allow identifying several decision making situations indicative of the entrepreneur's intention to minimize the impact of a wrong decision by using the *affordable loss principle*. Instead of seeking to maximize returns by investing what it might be needed to implement the most promising strategy, some entrepreneurs showed a preference for making decisions that allow experimenting their ideas without risking losing too much. The following excerpt illustrates such reasoning. The cited entrepreneur decided to postpone the intention of entering an expectably more profitable industry, and enter the market with a product targeting a different industry, for which product trials were much cheaper:

«We had an idea of how much it [the clinical trial] would cost but, one of the first setbacks we had [...] was to conclude that the cost will be much higher than what we anticipated. Therefore, we opted, not for this as our first product, but for changing to another product of our pipeline [...]» (#19: Biotechnology; B2B).

The affordable loss principle is also recognizable in the internationalization process. Ideally, companies should chose products and markets to internationalize, within a strategic orientation, which should take into account the market's attractiveness and potential, and also the firm's resource base, distinctive competences and its position in relation to competitors (De Burca, Fletcher & Brown, 2004). Instead, interviewed entrepreneurs reported that they made choices intended to lower the risks, as the first moves are experimental and results can only be afterwards assed. One of the interviewed CEOs indicated that costs such as tariff barriers, transportation, certification issues, and other commercial costs, including those related to putting the product into the market and acquiring customers, were the main criteria when deciding the foreign target markets. Thus, instead of being based on the market potential, internationalization decisions often follow a logic of minimizing the risk as transcripts bellow illustrate:

«Why did we choose that product to internationalize? Because, from all that we have it is the one that is easier to internationalize, with lower costs [...]. In a first stage is simpler and less risky» (#28: Engineering; B2B).

«When we first entered that market we made no investment, it was only some brochures and DVD's. We established our office there only when the sales growth justified it [...]. Our costs were paid with our revenues» (#34: Digital Technologies; B2B).

We also observed in our sample that the perception of risk and the propensity to use the affordable loss principle was higher in the imminence of a financial loss. For instance, when deciding whether or not to respond positively to a proposal of a partner to develop a new product, one entrepreneur assed the needed resource commitment in terms of both financial and men-hours. He concluded that the risk was low since the project demanded only labour hours, as his quote shows:

«When it is a decision involving only workforce, which was the case, it is an easy decision to make. We didn't have to make such a large investment, there wasn't a great risk» (#17: Digital Technologies; B2B).

Thus, within an effectual logic, interviewed decision-makers showed higher disposition to experiment when only labour investment was involved. When the decision involved financial investment, the decision usually included more causal characteristics, such as analysis. However, we found simpler analytical processes much based on experiential knowledge, distant from the traditional logic of acquiring and processing accurate information and generating conclusions as objective as possible. Such a 'light' causal decision making process is described ahead.

Decisions made within in a logic that allow lowering the costs are also perceived as a way of lowering the business risks and, consequently, raising the investment attractiveness. So this is considered a rule of thumb, as one of the interviewees puts it:

«Of course that if we can contract [the production] outside the company we will not assume the risk of doing it internally. Maybe this is one of the unwritten rules of start-ups, that is, if we can minimize costs and risks for investors, let's do it! Of course it [the product] turns out to be more expensive, but we pay to have lower investments» (#19: Biotechnology; B2B).

The cost minimizing strategy has advantages, being the most important the flexibility to test business assumptions and several marketing options before investing more heavily in a certain course of action. The experimental approach allows building information in context of high uncertainty, but this learning process also has a major drawback. It leads to longer take-off cycles that can hinder the

start-up ability to acquire a strong competitive position early on. The following transcript reflects such idea:

«It's hard... the growth is slow... on the one side, it is advisable to make that decision because you can lower the risk and if it goes well, it's great if it doesn't it's not that serious. Our approach aimed at lowering the risk but it's a slow growth and it's difficult... we have to work a lot, give our best and wait patiently that the market will give us credit» (#21: Engineering; B2B/B2C).

One way of sharing risks and speed up the launching process is through investors and other partnerships. So, while affordable loss may delay the speeding of the company, partnerships accelerate it while still lowering the risks. However, results indicate that investors and other partners, such as commercial channels, need to be addressed not just as a way to slice investment but also as sources of information that will contribute to lower uncertainty allowing making more substantiated decisions. If the level of information availability is not used as a compass, it may be possible that having financial resources available will produce poorest results than not having them at all. In fact, we observed in our data that the few decisions indicated as having had bad results, including important financial losses, are related to the entry of investors who, under uncertain conditions, influenced decisions to follow one single direction, which was later proven to be wrong. In that sense, not having financial resources available may be preferable under uncertainty, given the fact that entrepreneurs will be more prone to use the affordable loss principle to control for the possible damages in case of wrong decisions.

Therefore, under high levels of uncertainty, having resources available is not very relevant, because entrepreneurs do not know how to apply them. In the words of one interviewee, when asked about what he would do differently if he had more available resources:

«I think that what we did was enough, because we didn't know what was going to work [...]. We have to make a lot of tests, we made several different actions and we tried to make a test first to see if it pays back... "was it interesting? How much did it cost relatively to other action...?" [...]. We had to make choices and when you have to make choices, we have to be more discerning» (#7: Textiles; B2C).

10.1.2. Be flexible, seize contingencies and create the future

Also salient in our study is the recurrent opinion that new companies must remain flexible and adaptable in order to adopt the shape of the settling market. In fact, it was evident that most

entrepreneurs privilege an open perspective that allows responding to surprises and shortages in a much like zigzag pattern (Baum, 2003). Most interviewed entrepreneurs shared the opinion that decision process must assume a plasticity that allows developing business within uncertain environments, as illustrated on the transcripts below:

«We opened the company with the intention of providing one type of services, but we very quickly understood that we can't sell that here in Portugal. There was a moment when we decided: "well, we can't sell this right now, let's do things that we can sell more easily"» (#32: Digital Technologies; B2B/B2C).

«There are no magic formulas in business; we just have to be very flexible to deal with uncertainty» (#4: Digital Technologies; B2B).

«This, in theory, is my concept. In practice I have to survive and within the current context I have to adapt to the market and I have to dance the market's music. Currently I am dancing the music I can, not the one I want... the one I can dance with my customers [...]. We are a product of chance and circumstances» (#37: Business Services; B2B).

«The way we make decisions is adapted to the markets, to the products and to the teams that are developing. And then it is necessary to be able to risk. There are some things that are not minimally accomplished...in fact, the majority is not. What is important, from my point of view, is to be minimally aware that it is like that, period [...]» (#26: Digital Technologies; B2B).

In such a context, instead of devising a marketing strategy in advance, entrepreneurs in our study showed a preference for taking advantage of emerging opportunities, as pieces of a puzzle that not every time has a recognizable final form in the early life of the start-up. Under circumstances of high uncertainty, entrepreneurs cannot exploit previous knowledge to make decisions, and the most appropriate rational is to *leverage contingencies*. Instead of defining objectives for a given action, entrepreneurs spontaneously implement marketing actions, as opportunities arrive and they assess results afterwards. The following transcripts illustrate such reasoning:

«In a sense, it's somewhat typical of our strategy, that is, we normally accept challenges even without knowing for sure where the profitability will come from. The advantages of that kind of actions are not immediately assessed. In this case [a particular marketing action] we invested in terms of effort and work, even without any guarantee that the investment would be paid» (#12: Digital Technologies; B2B).

«We were all university staff. We were a fairly unknown company, very small, but with a technological capacity above average. So, every challenge that somehow allowed us to show that capacity and gain visibility, we grabbed it, without thinking too much» (#12: Digital Technologies; B2B).

We confirmed that, as proposed by effectuation theory, some marketing decisions are fairly emergent and dependent on what happens in the process of establishing the new business. Particularly in the case of science and technology based firms, with strong technical capabilities and based on platform technologies, potential applications and markets can be abundant and, therefore, new ideas and opportunities are appraised in the moment they arrive. The creative pattern of developing the products / markets strategy is not compatible with planning in advance, as the following transcripts describe:

«The process is extremely **emergent**. I am **averse to planning**. I use to say that I have the heart near my mouth in everything, in personal relationships I'm also like that. I'm a passionate man. In a start-up, if you're not like this you won't be able to do anything. **If I start to plan I'll change everything later**. What I planned at the beginning, I already changed it completely. At the end of six months we were already inverting all our process. What I imagined and putted on a paper a year and a half ago **changed completely**. Today, one of the ideas became a spin out, the other has a completely different technology, I'm now thinking in [different application] and for the future maybe in [another different application]. I give you an example: I was talking with a person that told me that fruit rots too fast. I talked to our investigator and we reached a solution... This is our thinking process» (#18: Textiles; B2C/B2B) {Emphasis added}.

This idea of emergence and taking advantage of unexpected events is, in fact, common in our sample, especially among entrepreneurs without formal marketing training, and when deciding in context of low information availability. Under such conditions, interviewed entrepreneurs show openness to accommodate unforeseen situations, considering them positive, which represents one of the characteristics of the effectual mindset. The following excerpt conveys such attitude:

«I would say that almost everything is casual [...]. There are several situations when we try to force things to be in a certain way, but most of the times, it doesn't work [...] and sometimes things end by happening in ways we didn't expect and when they happen, it's great!» (#29: Engineering; B2B).

«Up to this point, almost everything came to us. We've been doing things easy, without any rush and things have come to us. Almost every contact that we made with the market came to us. It is preferable that an interested person comes to you than ten other people that you have to look for» (#31: Biotechnology; B2C/B2B).

The following excerpt illustrates one of the reasons why some opportunities cannot be planned, as they result from casual situations, including interactions with different people:

«Everything that happens ends up being a little casually... conversations with clients, in which we maybe manifest some dissatisfaction with something, conversations with people that we think have more

experience than us, and these people may have seen in our dissatisfaction an opportunity to help» (#11: Business Services; B2B).

Although contingencies, by definition, happen without any planned intention, they can also be provoked to a certain extent, in the sense that conditions can be established for them to take place. The most important condition detected in our sample is the entrepreneurs' openness and willingness to establish new contacts and participate in new experiences. Most of the times, this happens without immediate awareness of its possible impacts. Again, our results confirm effectuation suggestion that there is a natural proclivity for trying new things, which may result on opening new possibilities for business development. One of the interviewed entrepreneurs explained how he gained a high profile customer while working in something else in collaboration with another supplier of the same customer. He remembers:

«They had a problem [with that big customer] and I offered my help, without even thinking that I could come to work with their customer in the future» (#34: Digital Technologies; B2B).

The idea that there is something deliberate in chance is also portrayed in several statements extracted from the interviews. For instance, when talking about the moment they found the most appropriate and special place to implement the imagined business concept that would convey the intended message to the customers, one entrepreneur said: «Was it luck? Well, maybe... but you must seek luck» (#31: Biotechnology; B2C/B2B). Another entrepreneur explained that it was a critical incident to casually meet his current business associate, who had the right complementary skills needed to materialize the product idea. He considered that:

«It wasn't totally by chance. I already had a will to launch something that would help the investigators, and he also had that desire. The chance was we met at the right time» (#41: Digital Technologies; B2B).

In a sense, these ideas give indications of the entrepreneurs' tendency to rely on a logic of *non-predictive control* instead of on a logic of prediction (Read & Sarasvathy, 2005). In fact, we found evidence in our sample of the acknowledgement that under uncertainty, it is impossible to predict the future, and therefore, adaptation to contingencies and the ability to leverage them are keys to creatively design the future, as illustrated in the following quote:

«In the beginning of this year [2012] it was impossible to define what would be happening now, it was impossible... everything depends on the market response [...], the same way that in 2010 we couldn't predict that 2011 would be such a bad year due to circumstances that we can't control... We are navigating a sea without a compass and **we take advantage of the winds that arise. It is**

impossible to control everything. What we do see is that the current is taking us to somewhere and **we are taking advantage of the current**, but we don't know if the current is going to change and in what direction. However, if the currents change we probably would have the capability to react to that change» (#11: Business Services; B2B) {Emphasis added}.

This difficulty in anticipating how change will happen also explains why some interviewees admitted to feel uneasy to define goals for the business. Instead of devising objective aims that would allow to measure more accurately the marketing performance and effectiveness, some entrepreneurs rather established subjective and personal intents such as the one illustrated in the following quote:

«When we started the company we didn't have a goal, that is, we had a single objective that was to create a great place to work and stop to put up with stupid people» (#16: Digital Technologies; B2B).

Facing the difficulty or even the impossibility to make predictions, entrepreneurs in our sample often resorted to heuristics, that is, shortcuts to make decisions when exhaustive information acquisition and analysis were not possible to implement (Busenitz & Barney, 1997). It is worthy to mention that, although these strategies can help to make the decisions more efficient in complex and uncertain contexts, they can also lead to errors that affect the ability to make effective decisions (Baron, 1998). When deciding based on cues, entrepreneurs may disregard important information and make wrong conclusions, as illustrated in the following quotes:

«We didn't make a market research in order to see if there is in fact a need... **we thought that interest could exist, since there were so few companies** at international level [offering competing products] and decided, almost, to risk and go forward. We went forward, but **things didn't work so well** because the prices are high and the [Portuguese] market can't afford them. But the interest is there and will continue to be» (#29: Engineering; B2B) {Emphasis added}.

«I received an e-mail announcing the congress [seen as a marketing communication opportunity]. It was sponsored by [reputed publishing group] which **I thought gave credibility to the event**. Therefore, at that time I presented the suggestion to the rest of the team and asked them what they thought about it and at the time we decided for it; however, the **return was not that obvious...**» (#20: Biotechnology; B2B) {Emphasis added}.

When talking about the decision to focus on the international market, particularly the North America market, an entrepreneur from a company that makes mobile applications explained why he did not engaged in analytical thinking:

«I know that in the USA there are people with more money than here, the companies get a faster return on investment because they have a bigger market... it is obvious... I don't want to know how many iPhones there are in the USA, before sending an e-mail to a prospect, I don't care. That is, we do what makes sense» (#36: Digital Technologies; B2B).

10.1.3. Unite and rule

Besides using *affordable loss* as decision criterion and focusing on *leveraging of contingencies* we also identified a preference for *developing partnerships* rather than depending on competitive analysis in several decisions analysed. Partnerships were found at different marketing levels such as product development, commercialization and promotion and also supply. The most common advantages attributed to these partnerships were the ability to lower the risks, to acquire complementary competences, to amplify the value offered to the market and to accelerate the take-off process.

At the product development level, partnerships are indicated as being a very important resource. Actually, partnerships allow to access several other necessary resources, thus lowering the investment needs, as the following quote evinces:

«[...] Technology was in the lab stage, and we made a scale up for the industrial level. We made this with the partners that we had, which is an advantage, because we didn't have to create from scratch this [technology name] development unit. Otherwise I would have to buy [equipment name], and several other things that already existed in the industrial unit of the partner. So, it was **simpler** to do and we have there a place to **industrialize the process**, to **experiment** and even to **produce**» (#18: Textiles; B2C/B2B) {Emphasis added}.

Product development partners may serve a twofold purpose, if they already have commercialization structures. In fact, establishing bridges to the market is often considered one of the major barriers that start-ups need to address. In fact, our results indicate that research and development partners are sometimes selected with this second objective in mind, as evinced bellow:

«Currently our strategy involves having several projects in partnership. The objective is to establish a network to develop new products [...]. The connection to the market is also made through the partners that already work with the target market» (#35: Geology; B2B).

Such sharing of roles needs to be well defined and articulated properly when establishing partnerships, though. On the one hand, start-ups have plenty of technological knowledge but lack commercial experience and other resources. On the other hand, incumbent partners may detain commercial structures but not technical expertise to align these resources with the novelty brought by start-ups' product ideas. The following quote illustrates that ambiguity:

«From their [partner] side, they would prefer that we were to sell the product, because they say it is more within our area, more related with investigation, more technology... but we think the opposite, we say that they have more experience, they have access to channels... So I think it will be done by both sides, each doing what they know, and then we will see...» (#29: Engineering; B2B).

The potential friction caused by not well-defined roles and responsibilities in partnerships can cause them to fail. When it happens, at an early stage of product development and commercialization it may lead to project delay or even abandonment. This situation was reported by one of the interviewees, as follows:

«This project had ups and downs. We tried to establish partnerships for accessing capabilities that we lacked, namely for commercialization [...]. We later decided to abandon the partnership that we had [...] because we saw that things weren't going fast enough. We think that this was the best decision. That partnership was never well formalized, and maybe because of that we didn't feel that there was a strong willing from both parts...» (#21: Engineering; B2B/B2C).

At the promotion level, we confirmed also a strong focus on partnerships and personal relationships as a marketing communication tool, but this is done naturally, as an extension of what entrepreneur is and whom he knows, as the quote below evince:

«We never invested too much in marketing, we invested in personal relationships but without that intention of creating a network ... I can't express it very well because is something that is not explicit, it is implicit» (#16: Digital Technologies; B2B).

Regarding the supply chain, establishing partnerships with suppliers is referred as an important strategic decision, which benefits may even surpass the potential cost disadvantages resulting from not implementing an extensive procurement process. When talking about the decision to give preference to local suppliers, one interviewee explained that the relationships created were more valuable than the cost savings that they could get if opting for other suppliers:

«We can't just look to the money side of it. There are ties that can be created and the networking that can benefit us in other ways. There [the community where the business is implemented] is essential to make

friends, because there is always return from them. This is not being opportunistic, it is to know how to be» (#38: Biotechnology; B2B).

In general, there is a consensual opinion among interviewees that partnerships add value to the new business. In fact, lack of partnerships can make market entry more difficult and can hinder the success in the critical phase of lifting off, as expressed by the following transcript:

«One thing that I think I failed in my company was to start all alone, without any kind of partnership. I later understood that I needed partnerships and I established several to offer more interesting things that I wouldn't be able to offer in isolation» (#30: Digital Technologies: B2B/B2C).

As mentioned before we also found several marketing decisions that can be classified as following a causal approach, although maintaining some dashes of flexibility and distance from complex analytical thinking. The next section explores the characteristics of such decision making logic.

10.1.4. 'Light' causal marketing decision making

Causal decision making is based on the assumption that predictability is possible and, then, means can be organized in the most efficient way in the present time, to attain future goals (Read & Sarasvathy, 2005; Sarasvathy, 2003; 2001). Such a perspective requires a fairly stable context and sufficient information to draw tendencies with a reasonable probability of correctness. Although, for innovative firms, these benign conditions are not very common in general, we observed in our sample that circumstances can be different for diverse decisions and at different moments during the new firm's development cycle, allowing causal and effectual marketing decision making to coexist. Nevertheless, we noted that even decisions that can be classified as causal, maintain some characteristics of effectuation, which we labelled as 'light' causation. For instance, a certain decision may be intentional, and be planned in advance, with the purpose to attain certain pre-defined goals but, along the implementation process effectual principles, such as affordable loss and leveraging contingencies, may be used. The following paragraphs illustrate that nuance.

When describing a planned decision to include services in a product portfolio in order to attain goals in terms of profitability, which would allow funding the product development activity, one entrepreneur expressed that:

«We all had a large **experience** in this area, so it was **a natural process**. We quickly understood and defined **what we wanted to do**. It's a model that we already knew, that had resulted well for us in the past [in a previous company] and we thought that it would still make sense. It was a fairly pacific decision. Initially we even considered being a product company exclusively, but the needs for founding would be higher and **the risk would be larger** as well. The inclusion of the professional services helped to fund the company and lowered the risk» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

In this case, the decision maker relied on the accumulated information about the business and also used his processing capacity resulting from having had a previous work experience in the same business to make an intentional, goal oriented decision. However, while based on exploiting existing knowledge, it is still noticeable the use of the affordable loss principle in his heuristic decision making process.

In the same way, it is not because a decision is planned and based in some degree of analytical thinking, that entrepreneurs become blind to contingencies, not taking advantage of new opportunities, as the following transcript conveys:

«We made a list of people [prospect R&D partners] with whom we wanted to talk, previous to make contacts with them. It was planned. We knew with whom we wanted to talk and tried to reach them. But there were other people that came to us, suggested by other contacts of ours. These contacts were **both planned and spontaneous**» (#22: Business Services; B2B) {Emphasis added}.

10.1.5. Flexible planning for guiding

The planning activity is made, by the participating companies that had a plan, in a very loose way, as previously described. This means that marketing decisions, or other business decisions for that matter, are not completely tied to a rigid document, rooted in thorough analytical processes. The plan is viewed more as an opportunity to reflect and a guide for future reference, than anything else, as expressed by one entrepreneur quoted bellow:

«We made a plan but a **very light one**. We did not make that kind of things that you learn in MBAs, such as making a business plan with 200 pages. We made something with nearly 20 slides **to guide ourselves**, and those 20 slides served as a basis for the decision making process and to explain the investment needs to the shareholders [...]. Each year we define a strategic plan and investment options but, again, something extremely light, it is literally something with only 20 slides. In 20 slides it is easy to

present the budget, the investment needs, the product and services decisions and the human resources needs» (#6: Digital Technologies; B2B/B2C). {Emphasis added}.

Some participant entrepreneurs seem to feel the need of doing a business plan in order to better structure the business idea. This may be due to a common belief in the benefits of such a plan. In our sample, this belief is apparently stronger in entrepreneurs who have formal training in management or marketing. They acknowledge the importance of planning, although recognizing that it is very difficult to plan, especially when there is a strong innovative component inherent to the business. As one participant, who has a background in economy and runs a business that offers highly innovative products, expressed:

«We have defined a business plan, but with a **high level of ignorance**, because this was a new product, and we **didn't have experience** in this business area. We **didn't know** the channels, we **didn't know** the clients... it was a **learning process** during which we tried to define the main strategic objectives» (#7: Textiles; B2C) {Emphasis added}.

In this case, the plan was produced internally, so it was as much adherence as possible to the document produced, in spite of the turbulence surrounding the business development. In other case studied, the business plan, which also included marketing planning, was designed by an external entity for a business for which there was not much information and that is administered by a technician CEO. The result was that this plan was considered to be useless and even outlandish, as described by the interviewee:

«I had help for developing the business plan, but I admit that I was a bit disappointed. I created this business at a very personal level, something small, and I've got clear and precise ideas about what I want. The plan was directed to - and it was suggested that it was the only possible direction - a business complexity that needed business angel investments and the like... I don't even know very well what that is» (#14: Engineering; B2C/B2B).

While some entrepreneurs do not recognize value to planning and others do, but only if they can keep it as simple and practical as possible, there are others for whom the analytical process involved in planning can be an inhibitor of progress for start-up companies. Sometimes planning implies assessing the risk of each decision and it may result in abandoning an idea based on its low probability of success. As predicting success is very difficult, it may kill projects and actions that could, in fact, be fruitful. Additionally, the process of *doing* and learning with both successful and failed

actions is welcomed by entrepreneurs participating in our study, who considered it important to discover the company's path, as one interviewee recognized:

«[...] Basically, if we had parsed everything, we wouldn't have grabbed more than an half of the challenges that arose. Definitely... we lost money in some projects, but without them we wouldn't be here today» (#11: Business Services; B2B).

As it will be further explored ahead, our results suggest that previous formal education in management and marketing is related to a greater proneness to adopt a causal decision making attitude, much in line with previous literature (Dew et al., 2011; Dew et al., 2009a; Read et al., 2009a). In one of the participating companies, all founders hold MBA education and they admitted that:

«We must be one of the few start-ups that made a seclusion to focus. We were insulated for two days just thinking about what we should do... but maybe the MBA, that gives us such ideas, is to blame [laughing]... and we already made others [retreats]. With the day-to-day life we felt that need... of moving away from this more operational routine and stopping to think. Normally that doesn't happen with start-ups» (#22: Business Services; B2B).

But, again, even when there is a stronger focus on analysis and planning, participant entrepreneurs, in general, understand that they are in the business of *doing*, and thus, the priority is to decide under the existing conditions, and being flexible to accommodate future changes, as the following transcript, from the same above quoted entrepreneur, illustrates:

«Our decision process is very rich in terms of inputs, because we are a multidisciplinary team [...] and we like to discuss the ideas but we also like to produce decisions. We know that things won't happen exactly as we think, but if it is necessary to make changes, we will be there again with our different points of view to make a decision» (#22: Business Services; B2B).

For the exposed reasons, the idea of planning decisions in the studied entrepreneurial context was regarded differently from what it is commonly considered planning. In fact, marketing planning for start-ups may only mean, in some cases, having core ideas structured in order to define the road, with several checkpoints. This causal thinking is flexible enough to be inverted when needed, allowing leveraging contingencies that come up, as explained by one of the interviewees:

«We have key points representing things that we think we will go through, although we may not know when it is the right time to implement them. The timing will be set up along the way. There are also other things

that arise, because we participate in several events and we present our business idea and things also come to us, sometimes» (#41: Digital Technologies; B2B).

10.1.6. Blending decision making principles

Besides finding decision making episodes mainly guided by a causal rationality but showing concomitantly some features of effectuation principles, we also observed other two blended situations. One concerns to cases in which the general decision's cognitive process follows certain logic but then, its implementation denotes characteristics of the other. For instance, one participating company was involved in several research projects resulting in new services for the current or new markets, which were decided contingently. The opportunities arrive from situations as difficult to anticipate as they are invitations from partners or interactions with customers, to name the most common. However, after assuming a certain project, a more detailed analysis is made about the potential for the new services that emerge from there, especially if an application for funding is to be made. The transcript describes this decision process:

«The services arising from the projects emerge a bit by chance [...]. Then we start systematically organizing our ideas, until the point that we do market analysis, potential customers, financial viability... we make all that to apply for the funding» (#8: Geology; B2B/B2C).

The other situation observed is causation and effectuation being used in a sequence, where an effectual logic is used first, and then the results of some decision are assessed. If the results are not satisfactory, the information built from the previous decisions can allow using a causal logic the second time around. Again, the experimental attitude characteristic of effectuation enables a much needed learning process, which paves the way for a different logic, more focused on maximizing results. The following excerpt illustrates that dynamics that will be discussed further on. The entrepreneur describes his first decision of using an affordable loss approach for promoting a product and how he changed it later to a more maximizing returns oriented perspective, possible due to a partnership made to obtain the needed financial resources:

«We learned that it is extremely difficult and expensive to advertise our product effectively to leverage the product sales [...]. So, we decided to work with other players, much bigger than us that have the capacity that we don't have [...]. Typically we are talking about partners much larger than us, with the capacity to make a promotional action that we would never be able to do» (#6: Digital Technologies; B2B/B2C).

Companies, being start-ups or otherwise, do not born and live in an environment perfectly designed to fit the use of either decision making logics. We observed that decisions can be more evincing of an effectual or causal logic, but entrepreneurs mix characteristics of the two when it is needed or considered propitious. In fact, establishing and running a new business involves being able to shift gears appropriately in a hectic context. One of the interviewed entrepreneurs, quoted below notes that this is a process involving controllable and less controllable aspects that are equally important for business development:

«This is a process and it also involves a bit of luck. I was lucky, for instance, when I found my business associate. We are very different [...] but we complement one another in a 100%. The process is our personal journeys and things that happen and also there is a bit of planning. There was a moment where we had to plan a strategy to create the business [...] we had a clear idea of what we needed [...]» (#31: Biotechnology; B2C/B2B).

10.2. Advantages and disadvantages of different decision making logics

Both causation and effectuation offer advantages and disadvantages. The results suggest that causation allows a faster take off in less uncertain environments, whereas it is riskier under uncertainty. Regarding effectuation, although it allows leveraging opportunities and learning without risking much in turbulent contexts, in more stable ones it can lead to longer development cycles and delay growth. This is consistent with the view of Ye, Fitzsimmons and Douglas (2008) who propose that heuristics used by entrepreneurs to cope with high levels of uncertainty can, in fact, lead to less than desirable outcomes, because of specific biases that may be associated to each of the effectuation principles.

We observed that the delay in taking off and the inefficiency associated with not having a defined path, were the most common complaints regarding effectual decisions as exemplified by the transcripts below:

«We know how to do a **lot of things** [...] but these are always **different things**, and this is a **difficulty**, because we have to study and deepen the issues involved, and a business can't be managed like this, otherwise everything takes **ten times longer**. Deep down, we are still trying to understand what will be our next steps» (#15: Digital Technologies; B2B/B2C) {Emphasis added}.

«Making **everything new** every day is **not profitable** [...]. It is a **learning process** that costs a **lot of money**. And university doesn't teach that...» (#26: Digital Technologies; B2B) {Emphasis added}.

Table 10.1. summarizes the different benefits and drawbacks of the effectuation and causation, as they were found in the study.

Table 10.1. Advantages and disadvantages of each logic

	Advantages	Disadvantages
Effectuation	Taking advantage of opportunities / flexibility and adjustment (leveraging contingencies). Learning-by-doing (experimenting). Sharing risks with partners (exploring partnerships) Obtaining required competencies with lower costs (exploring partnerships). Minimizing impacts of a wrong decision.	Longer learning curve (delay growth). Trial-and-error is a longer process. Not choosing a strategy leads to go around in circles, wasting time (inefficiency). If partnerships fail, the project may go back to square one.
Causation	Faster take-off when information and knowledge are available.	Riskier under uncertainty, as losses are not minimized.

Both causation and effectuation can offer benefits, so it is not about knowing which logic is better than the other; it is about understanding which logic is possible to apply under different levels of uncertainty in order to maximize benefits and reduce disadvantages of each. When conditions change, the logics should also change. Results suggest that the two can be combined to adapt to different circumstances or levels of uncertainty.

There are also cases, when entrepreneurs fail to seize the benefits of a certain reasoning strategy. For instance, in one studied case, the entrepreneur's vision for the product and brand framed his whole decision about the commercialization strategy. No analysis, predictions or plans were done to support it, due to the low level of existing information about the product and target market and the inexistent marketing knowledge. But as the strategy was implemented it did not result as expected in terms of sales. Meanwhile, other commercial possibilities emerged, with the company

receiving proposals for partnerships for commercialization. However, the entrepreneur disregarded them as he considered that it would not allow fulfilling his vision. Such resistance resulted in a big delay in launching sales and in a small market penetration. In this case, the vision created an obstacle to benefit from the advantages of effectuation in a high uncertainty context.

10.3. Dynamics of decision making logics

As circumstances change, marketing decisions making processes also change. The study allowed us to identify some of the characteristics of these dynamics. It was possible to observe, for instance, that when company has lower resources and depend upon a small number or just one market offer, the decisions are perceived as riskier, because an error can compromise the whole company. Under those circumstances, entrepreneurs tend to privilege affordable loss logic, depending more on inputs and validation from market. However, if company evolves, acquire more resources, and diversify the projects, the perception of risk lowers, as the following excerpt illustrates:

«Today we have more capacity to accept the risk and **accept the error**. We are more **prepared** in case of **being mistaken**, because the fear of error freezes us a great deal. As now we are **not as dependent** upon **one only thing**, we can afford slip up in one. **If we fail, the problem won't be that big**, but if we get it right, it can be a good opportunity [...]. It is as if we are climbing a tree with four branches, if one breaks, we'll have three more to hold to» (#26: Digital Technologies; B2B). {Emphasis added}

Another important circumstance that affects the dynamics of decision making is the level of development of the market. In very immature markets, it is possible to use an experimental and slow approach, but when the opportunities start to be very evident it is important to enter the market as fast as possible to establish position. The same entrepreneur cited above explained why his decision making process changed over time:

«I think that it has two reasons, one internal and another external. It is partially due to us, personally, being more mature but also due to the market. The market is increasingly dynamic. If we don't decide and act fast, the opportunities go by» (#26: Digital Technologies; B2B).

Experience and its learning effect seem to have an important influence in the way entrepreneurs decide. As it will be detailed in the next section, both marketing competency and information availability can derive from experience, which explains these conditions changing over

time and affecting the way decisions are made. In fact, it was possible to observe that the knowledge acquired by experience within the business, which is strongly valued, changes the way entrepreneurs make their decisions. This learning process is even equalled to a formal degree, as the transcript below illustrates:

«These lessons are not learnt for free, that takes **experience**. These are the kind of lessons that you learn during the life [...]. Deciding with experience is completely different from making a decision 'in blank' [...]. The major difference that I see from the beginning to today is exactly that. It is in the decision moment. Decisions are made focusing on what is **profitable**, now I **analyse** what is good for me, what is good for my employees, it is a decision based on **experience** [...]. Today I decide in a **completely different way** [...] I paid for bad decisions, and when I say I paid, I literally paid for my 'degree'» (#27: Digital Technologies; B2B) {Emphasis added}.

This demand for getting more information and capacity to process it can also be stimulated by the strict requirements of applications to funding, as the following quote exemplifies:

«In this project a different approach was made [comparatively to a previous one]. We established partnerships, established a consortium, we applied to NSRF [National Strategic Reference Framework]. This was a decision of not working quickly with people from here, but it was more thoughtful, it was more analytical, since we had to make the proposition to NSRF, we had to make a project, we made a work plan for three years...» (#21: Engineering; B2B/B2C).

Obviously, the information needed to base decisions, being in the context of funding application of in any other context for that matter, is not equally accessible for every products and markets that the company targets resulting in a mix of decision making logics adjusted to each situation. The following transcript illustrates this idea:

«It depends on the stage of the product... the company is not a one product only, it is two or three, so if the product is mature the feedback from market was already pretty much internalized... the sales area, normally have a good notion of what should be done, and then is important to conciliate that with R&D. In a more initial phase of the market, we go directly to the prospects or to those with which we work for the more mature products that can give us inputs for the more young products» (#26: Digital Technologies; B2B).

This means that the alternative use of the two logics do not occur only successively. Effectuation and causation may also be used simultaneously for different decisions under dissimilar conditions. The results indicate that in the context of high uncertainty due to scarce information about the probable effects of a chosen course of action, entrepreneurs tend to rely on effectuation to reduce

risk, and experiment to leverage knowledge, defining the path for the business development on the go. When information is available, it is more adjusted to exploit it for enlarge the return potential and avoid the disadvantages of effectuation. The same indication is observed for the existence of marketing competency, which is related to more causal decision making processes.

10.4. Section summary, research propositions verification and hypotheses

In line with literature (Read et al., 2009a), results from the study indicate that when there is a high level of uncertainty, entrepreneurs resort to effectual strategies to deal with the circumstances. The affordable loss, leverage contingencies and exploit partnerships principles are preferred, as it is difficult to establish goals for an unpredictable future. We also detected more intentionality, some level of prediction, a focus on attaining future goals, exploitation of previous knowledge and some competitive analysis in decisions of entrepreneurs who already know the market they target, particularly by experience, especially when decision makers have backgrounds in management areas. Results add evidence that allow to empirically **verifying the third research proposition**, which suggests that decision making logics are influenced by the level of uncertainty entrepreneurs face when making marketing decisions (*cf.* 5.3. Decision logics and the cognitive conditions to decide, p. 84).

We also concluded that effectuation and causation are not discrete and mutually exclusive logics, as the same decision may include characteristics of both rationalities or they can alternate in a sequence of decisions. This result is consistent with what effectuation theory proposes (Sarasvathy, 2001) and with our research proposition, which also posits that changes in the level of uncertainty may lead to changes in logics of decision making.

Based on the results, we propose the following hypotheses:

H3. The level of uncertainty influences the decision making logics used to make marketing decisions.

H3a. In contexts of lower information available, when uncertainty is higher, entrepreneurs tend to decide effectually.

H3b. In contexts of higher information available, when uncertainty is lower, entrepreneurs tend to decide causally.

H3c. In contexts of lower marketing competency, when uncertainty is higher, as a result of lower processing capacity, entrepreneurs tend to decide effectually.

H3d. In contexts of higher marketing competency, when uncertainty is lower, as a result of higher processing capacity, entrepreneurs tend to decide causally.

Results support the suggestion that the marketing decision making process characteristics are highly entangled with the circumstances in which they take place. The relationship between logics of decision making and conditions to decide is explored in the quantitative analysis section. In the next section, we focus on the shaping conditions, deepening the understanding about the reasons why entrepreneurs decide in such different ways.

11. Conditions to decide (why)

Results show that the logic and principles of effectuation are present in an important part of the marketing decisions analysed. However, we also found managerial decisions using causal logic and some decisions with mixed logics and practices, even from the same decision maker. The question that naturally arises is: why does that happen? What are the influences that the marketing decision maker is subject that shape his/her decisions? How are the decision making logics affected by different circumstances?

In fact, every decision is made within a context that affects the decision process and its outputs. Literature suggests that marketing decision making process is very much constrained by the ability to make predictions due to the level of uncertainty (Read et al., 2009a). Uncertainty is higher when there is little information to assess situations in detail but also when decision maker lacks processing capacity (Simon, 1991; 1955).

The fourth research proposition of the study suggests that both the level of information available and the level of marketing competency to make a particular marketing decision translate into uncertainty that affects how entrepreneurs decide and, consequently, the type of marketing they are able to implement. When uncertainty is high entrepreneurs cannot fully understand the market, establish marketing goals, plan and define marketing strategies, for instance, which are important aspects within the managerial marketing approach. Even if the needed information exists, if entrepreneurs lack capability to find it and process it, the uncertainty remains high. Therefore, research proposition 4a suggests that marketing competency have a positive effect on the availability of information to reduce uncertainty.

Results presented in this section explore the contextual conditions of the decision maker. The relationships between conditions and marketing decision making and practices are explored in the section dedicated to quantitative analysis. In this section we qualitatively analyse the importance of information and marketing competency for the decision process. We also explore the cognitive mechanisms used by entrepreneurs to deal with uncertain contexts. Figure 11.1. summarizes the results exploration structure of this section.

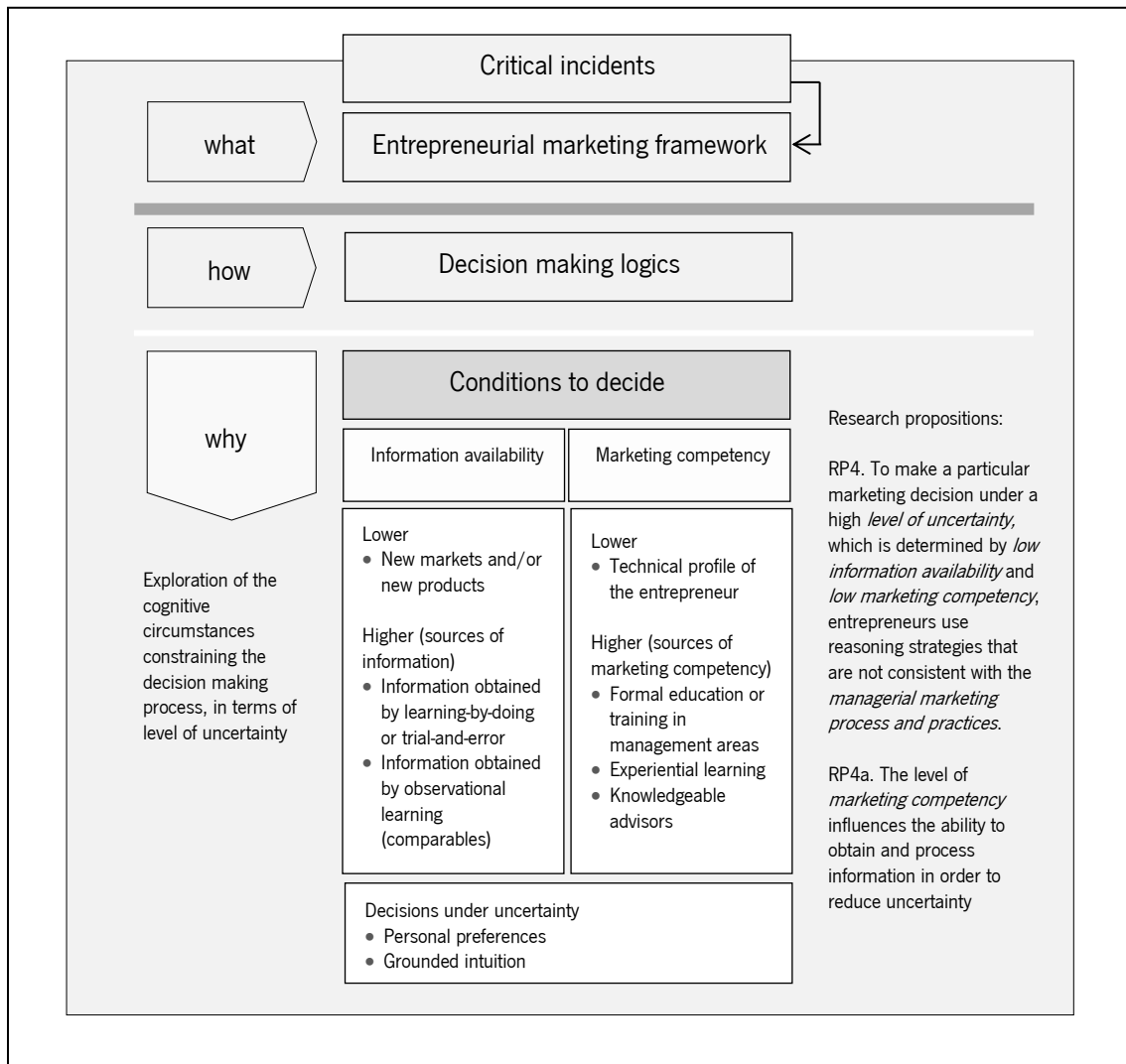


Figure 11.1. Conditions to decide exploration structure

11.1. Information availability

The level of information available for each decision analysed was assessed by exploring the circumstances not allowing having abundant data to make well-founded marketing decisions. These circumstances referred by the interviewees include several different situations, such as the market newness, novelty of the offer and non-existence of references from which to extract analogical information.

In face of such circumstances, participant entrepreneurs typically resorted to experimentation to inform future decisions. We found that trial-and-error and learning-by-doing are privileged forms of obtaining the needed information. According to von Hippel and Tyre (1995), while the process of trial-and-error involves experimenting alternative solutions for well-structured problems, which will lead to the desired solution within a reasonable amount of time, learning-by-doing deals with ill-structured problems, for which alternative solutions or pathways are unknown or inexact. Results of the solution generation process are, then, used to help revising the problem. Both situations were found in our sample. Besides extracting information from experimentation, participant entrepreneurs also find references in comparable solutions, when they exist.

11.1.1. Creating new markets and offering new products or services

We found in our sample that when new venture's products or services target new markets, with the meaning given by Kim and Mauborgne (2005, 2004), that is, the new company is creating a new demand, there is a high level of uncertainty about almost everything. The acceptance is not known in advance; the most valued features are just guesses; the profile of the customer is only a rough; it is hard to assess the needs being answered; the consumer behaviour is difficult to predict and the way the market will evolve in the future cannot be anticipated. These are difficulties mentioned by the interviewed entrepreneurs that are associated to high levels of uncertainty.

In this case, sometimes it can be even difficult to discern who the target market is, although this is basic information to support other marketing decisions. The transcript below illustrates the difficulty in making marketing decisions and defining a marketing strategy in advance when the market is new. The interviewee told us that he had an idea about who would his customers be, but when he released the first products he realised that different people felt attracted by them. He stated:

«We thought that it would be a younger target and it is older. We thought that we would have a more masculine clientele and it is more feminine... as all this is not 100% defined, it is important to left open doors to allow us to have some deviations» (#1: Textiles; B2C).

The level of information available is also low when the company's products or services are new, in the sense that they either feature a high level of differentiation relatively to existing ones or they use new, not well tested, technologies or business models. In this case, the value proposition is

not well established and it may still be a gap between the strengths of the product or service and the real need and valuation of the market. Further marketing decisions are dependent on the validation of the fit between the idea and the market, as one entrepreneur acknowledged:

«We realized very early in the process that no matter how good the idea is, it is only feasible if it solves a real problem. We felt that we were going to solve someone's problem, but we wanted to validate that before anything» (#22: Business Services; B2B).

In face of uncertainty both about the market and the product, there can be little or no benchmarks or any equivalent comparable, for that matter, that would serve as a reference to infer what would be the most effective marketing decision. In new markets, often niche markets, or for new products there is little or no secondary data to rely on and the primary data is hard to obtain.

Since our sample is mainly innovation oriented, in different levels and degrees, most participant companies experienced the uncomfortable situation of having to decide with little information, mainly in the early stage or whenever a new product was launched. We found, however, some decision situations characterized by low uncertainty. In such conditions decision making becomes easier and marketing choices are more purposeful. For instance, when deciding to expand the business geographically, one participant entrepreneur used objective data to support his choice, as the transcript shows:

«We wanted to expand, there was an opportunity to grow namely by installing a branch in Lisbon, where the market is more attractive. 33% of the whole national market is located there» (#2: Biotechnology; B2B).

There are also indications that information builds up over time, allowing entrepreneurs to develop more purposive decision and implement traditional marketing activities. The following transcript describes the changes in marketing approach as more information became available:

«At the beginning we had to optimize several things [in the product] and then, we decided to commercialize it. We started to visit prospects, to show the product... We tried to keep up with what started to show up in the market... one or two companies began to offer solutions in this area and when they arose, we developed the commercial function to be more aggressive» (#5: Digital Technologies; B2B).

This shows that information and knowledge grow in time but, how do entrepreneurs manage their learning process? How do they support their decision making processes? We found that experimentation and observation are sometimes the only ways to learn what really works.

11.1.2. Using experience and observation for learning

In context of high uncertainty due to market and/or product novelty, entrepreneurs in our sample expressed that they could only experiment and information was obtained a posteriori, resulting from the learning-by-doing process (Cope & Watts, 2000) and trial-and-error (Loch, Solt & Bailey, 2008; Miner, Bassof & Moorman, 2001), being used to improve future similar decisions. The first time entrepreneurs make a specific decision with low level of information available they have to deal with high levels of uncertainty, but the subsequent decisions are easier as the information from previous results builds up. Under such conditions entrepreneurs are forced to try different possibilities, as one of the interviewees attested:

«**It is trial-and-error**. Some products work out, other products in which we believe, either come ahead their time or the market is not yet prepared to absorb them. However, **we always gain know-how and experience** and, in one way or another, we can always take advantage of that later on» (#28: Engineering; B2B) {Emphasis added}.

The learning process that result on the acquisition of relevant information for future decision making, can also be made with experiences prior to the creation of the new venture, if only to learn what not to decide.

Also considered useful by participants is the translation of information from other areas and its adaptation to a new decision set, which is termed vicarious or observational learning (Holcomb et al., 2009; Bandura, 1977). There is also previous empirical evidence that involvement in vicarious learning activities and also search-and-notice learning, which is the search for information to solve specific problems, is significantly related to performance of the new venture (Chandler & Lyon, 2009). The following transcript illustrates this tactic to obtain decision making information. The entrepreneur explains the decision of establishing a branch of the company in a foreign country, although he had no experience in that particular type of decisions, and his business area was so new at that point, that he didn't have many references:

«That decision was made based on previous experiences of other companies. We have a very closed contact with other companies, some bigger than us, some smaller... But we try our best to understand the context of other companies and to be informed about how they make their decisions and what they bring them, with the purpose of knowing what is best for us» (#33: Digital Technologies; B2B).

In fact, we observed in our sample that analogical reasoning, which refers to the ability to transfer ideas and knowledge from a familiar domain to other less familiar (Ward, 2004) can play a relevant role in allowing obtaining useful information from dissimilar business areas. However, this information has to be interpreted and successfully adapted to the new context, referring to the potentiating effect of the processing capacity provided by management and marketing competencies. An interviewee conveys that idea, when he states that:

«If you know well the particularities of [his business area] you can adapt from [a different business area]. And when you have background in management and marketing it can be very easily achieved » (#2: Biotechnology; B2B).

The motivation to try to identify inconspicuous sources of decision making information may also be increased by the assessment that entrepreneurs make of the impact of a wrong decision. One simple way to make that assessment is taking into account the level of investment needed to implement the decision and the risk of losing it. When the decision is not perceived as involving risk, especially financial, the effort put into information gathering may be less and entrepreneurs tend to follow the affordable loss principle, as earlier explained. But when this risk exists, the process is more thoughtful. The following excerpts exemplify the difference of attitudes in two situations involving different level of resource commitment.

In the first situation, the entrepreneur was deciding whether or not to seize a contingent opportunity to create products in a new area for the company, involving emergent new technologies. Accepting to respond to a request from the market would require investing in new equipment a considerable amount of money, which the young company could not afford to lose in that stage of development. In that situation, the entrepreneur recalled that:

«We tried to know more about it and there was much more consideration because the risk was higher [...]. The investment was very high and it was a new area [...]. I never worked with that before and therefore it was a more thoughtful process to assess whether the risk would pay off» (#34: Digital Technologies; B2B).

In context of low information, market research assumes a more important role, but also a different configuration, since it is difficult to obtain the needed information directly from the market. As already described when presenting the entrepreneurial marketing framework, traditional market research practices are often unsuitable and the first objective of information gathering is to validate the assumptions, instead of identifying in market research data new opportunities.

In order to obtain information to make the decision that would hardly be straightforward due to the newness involved in the area being considered, the above cited entrepreneur resorted to experts to ask for opinions. This heuristic reasoning allowed the entrepreneur to make a decision in face of the impossibility of obtaining exhaustive or, at least, detailed information to justify the investment needed. He said:

«I asked several people from here but with national links and other people that I knew from the area and all of them told me that it could be a good opportunity to enter in the market this way» (#34: Digital Technologies; B2B).

In the second situation, the entrepreneur adopts a much more experimentalist approach. The business was less than a year old, the promoter did not have entrepreneurial experience and the main focus was on learning. When asked about the assessment process when making a decision, the entrepreneur stated that:

«I don't make this kind of assessment; I try everything, because at this stage I can't afford to choose what to do. I have an idea and I'm immediately making it... because, let's face it... how much does it cost me? It is the time of sending an e-mail or a trip to Porto or Braga. It isn't such an investment that would make me consider whether or not it is a good option [...]. We are talking about things that don't have any cost. So, every idea I come up with, if it doesn't have a cost, I implement it» (#39: Business Services; B2B).

In turn, when information availability is higher, decisions are easier, as they can mimic existing and proven models applied before or by others. Entrepreneurs consider very normal to translate successful decisions from others to their own projects, when that possibility is available. The following transcript illustrates this idea. When explaining his decision of using a particular communication action to promote his new products, one participant entrepreneur admitted that:

«This is not new, it takes just a simple research of what our competitors do to be able to see that others do the same» (#1: Textiles; B2C).

In sum, in the sample studied, we are able to observe that uncertainty is higher when there are no evident points of reference, which occurs when target markets or products are new and it is difficult or even impossible to rely on existing examples of what it is an effective decision. The difficulties that it poses to the decision making process is heightened when there is financial risk involved. When the cost of trying is affordable, entrepreneurs may experiment different solutions in order to extract information from those experiences, both successful and failed. Therefore, previous business experience may help to accumulate important information, for future decisions. Also, with

the adequate processing capacity, information can be extracted from non-evident analogical situations and drawn from experienced opinions. As proposed earlier, information alone would not reduce uncertainty, unless there is competency to work upon it. Previous research has shown that the ability to gather information depends on the resources available. Cacciolatti and Fearné (2013), for instance, found that firm size affect obtaining relevant information to make marketing decisions and they suggest that it may be due to the lack of marketing expertise, which may hamper the identification of information needs and relevant sources of information.

11.2. Processing capacity: marketing competency

We suggest that having marketing knowledge and competency should enhance the capacity to obtain and process marketing information in order to use it more effectively in the marketing decision making process. Although only a small part of the sampled entrepreneurs hold formal training in areas which allow any contact with marketing concepts and tools, we could identify a fair knowledge of marketing in more than a half of the considered decisions. This classification was made both by asking directly interviewees about their perceived level of marketing competence for a particular decision making situation, and by analysing the terms used, the rationale behind marketing decisions and the level of consciousness about the use of marketing tools and concepts.

We concluded that marketing competency can be acquired by formal education and training in marketing, but also through advice of mentors or marketing partners or experiential learning, possible by having had marketing experience, as suggested by Carson and Gilmore (2000a).

11.2.1. Technologists and marketers

Participants that expressed their opinion about the importance of formal marketing training for marketing decision making process agreed in one particular point. This training was considered relevant to compensate for the strong focus on technical side of the business that innovation oriented start-ups show. In fact, previous studies have shown that both technology and market knowledge are important for new venture outcomes (Sullivan & Marvel, 2011). One interviewee, who holds a degree in the management sciences area, considered that marketing knowledge is key, and he explained why:

«It is fundamental because we work for the market! [...]. I think that [having marketing training] is an advantage [...]. CEOs that are technologists focus more on the technical details of the product and forget when it must be released, where is the market, who the competitors are, where is the opportunity, what is the positioning... they tend to forget those things, which, bottom line, is what assures them return on investment. On the downside, we don't have a total control over the potential problems with the product, or of the technical complexity of making something that must be obvious to the market [...].» (#26: Digital Technologies; B2B).

The same participant expounds that marketing knowledgeable start-up decision makers are more aware of timing, allowing them to move first to the market with an innovative proposal, to explore growing opportunities. Technicians, on the other hand, being focused on product, tend to wait too long to release it, hoping to present a perfected final version. He commented that:

«The technical results are not always aligned with what market wants, when the market wants it. Technicians risk less, release more mature products. We release probably not as tested products, but we enter the market first and then, we grow with the market [...]. For technicians the product has to be perfect at the first try, but as nothing will be perfect at the first, they lose timing» (#26: Digital Technologies; B2B).

Technologist CEOs corroborate such perspective and also agree that marketing training is important. Once this knowledge is acquired it changes the way they decide. The following excerpt is an interesting testimony of that acknowledgment. One participant CEO had taken short marketing courses and they led him to shift attention from designing a very good product to designing a very appealing value proposition. He recognized that for technicians this is a very difficult change of mindset, but he considered that it is crucial to lower the risk of failure:

«I don't have academic education in marketing, but I took several courses that influenced a lot the way I decide [...]. When I started the company I was a technician [...]. When you start a company you take a leap - like Baumgartner¹ - from very high into the unknown. One of two things can happen. Either you keep going as technician, and this is very risky for start-ups, and things will go wrong or someone, who is not a technician, that **understands management, marketing, finance**, gives you a hand. Otherwise you'll crash on the ground and you'll be completely smashed. A technician lives that [the product] with passion, and wants everything completely well-executed. But this is not enough. Innovation is beautiful, but it has to have a purpose [...]. **It is necessary to know how to create value for the market**» (#28: Engineering; B2B) (Emphasis added).

In fact, while holding a strong technical advantage, the great majority of the studied firms do not have an equivalent marketing strength. As described earlier, only nine out of the 42 participants in

¹ Referring to Felix Baumgartner, who in 2012 set the world record for skydiving, jumping from the stratosphere, an estimated 39 kilometers height.

the CIT interviewing process and two out of nine participants in the pilot interviewing phase have background education in management areas. The results suggest that basic marketing knowledge can be critical, especially in the early stages of the company, when all resources are generally scarce including information and knowledge that eventually will be later gathered by experience. Some interviewees recognized that in the beginning, they were quite confused about what to do, since their main strength was technical and they lacked marketing competency, as illustrated on examples below:

«When we started the company we didn't know exactly the product that we would sell [...]. We knew that we wanted to take these materials, develop them, process them and sell them, but we didn't have enough knowledge about how to do it» (#29: Engineering; B2B).

«A big mistake of mine was my great ignorance of the market and of what would be the trends in Portuguese market [...]. I didn't know what a company is; I didn't even know the meaning of the word market [...]. On the other hand, I became a specialist in the technology [...] but at that point I didn't seize that knowledge» (#30: Digital Technologies; B2B/B2C).

The evidence supporting the suggestion that marketing competency influence the ability to make informed decisions was already salient during the pilot interviews and it is reflected in the following transcripts:

«We didn't use marketing techniques in the early life of the business because neither we knew how to do it, nor we had the time. Start-ups don't use marketing until they know they can apply it» (#06: Digital Technologies; B2B).

«We don't have a marketing plan. I think this is due to not only the specificity of these new businesses, but also because we don't have knowledge in this area. Here, we all are engineers, with a little management knowledge, perhaps, but we don't have anyone from marketing» (#02: Biotechnology; B2B).

If entrepreneurs lack marketing competency, it might be expectable that resourcing to marketing competent people would alleviate the problem and make decisions easier. However, we observed that besides most main decision makers not having marketing knowledge, almost all participating companies did not have other specialized marketing staff, either. One interviewee presented a possible explanation for this, transcribed below. Despite recognizing the importance of marketing, having to decide between technicians and marketers in the context of resource shortage, this science and technology-based entrepreneur considered that management people must be let out, mainly because if they do not understand the product, they cannot take it to the market:

«Unfortunately, there is mismatch between the background of people from management areas and technology companies. **Who doesn't speak our language isn't able to sell our products** [...]. I think that they are needed, but a small company, with limited resources, and needing the CEO to be a technician, knowledgeable of the technology, cannot afford to pay for management people. Maybe when the company grows to 20 or 30 employees...» (#24: Biotechnology; B2B) {Emphasis added}.

Even if these companies do not lack financial resources to hire marketing people, it could be difficult for traditional, managerial marketing trained professionals to fit their particularities and needs given the complexities of technical innovative products and the uncertainty resulting from lack of information, as explained in the previous topic. That is why, sometimes is not even viable to use the assistance of external professional consultants, as explains one of the interviewed entrepreneurs:

«For our type of solutions, it is difficult. If I had a company that produce very well-known products, for which there are several references everywhere, it would be easier. For example, in the food industry, automotive, chemical, pharmaceutical... it's easier. In our particular area, when you have products that are innovative, and they don't have any references; the very consultant will be at sixes and sevens, as he doesn't have comparables. Then, he lacks another thing that is the technical and scientific knowledge of the product [...]. He would be confronted with several doubts from the market in terms what is possible to do...» (#28: Engineering; B2B).

11.2.2. Learning marketing by experience

In addition to formal training, entrepreneurs can acquire marketing competency that allow reducing uncertainty through experiential learning (Kolb, 1984), both in previous working settings and with the first experiences within the start-up. Previous studies have shown the importance of experience for reducing uncertainty (e.g. Fraser & Greene, 2006).

This experience not only improves the processing capacity and provides effective decision models, but also equips entrepreneurs with important informational resources, as mentioned before. In the case of previous experience being in the same industry, it is also indicative that the sector is already known and, therefore, the level of uncertainty is lower. One interviewed CEO acknowledged that the experience he acquired in a previous company was an important learning tool to make more effective decisions, as following quoted:

«If I haven't had this **experience** I suppose my business would be condemned [...] The passage for the previous company was crucial, because it allowed me to implement the right strategy [...]. **My real**

school was that company, because I learned there, not in the university, what it takes to be competitive» (#4: Digital Technologies; B2B) {Emphasis added}.

Being knowledgeable of the marketing concepts and techniques allows recognizing their benefits and, hopefully, to seize more effectively what they can offer to new ventures. These concepts and tools can also be acquired by experience. For instance, after several years dealing with customers and implementing self-taught marketing actions, another participant that had no formal training in marketing was able to recognize the importance of positioning and conveying value, as illustrated by the following quote:

«We started to understand, in the harder way - maybe in a master degree we would learn that - that the positioning is important. It doesn't matter so much the price, but to ensure that the customer on the other side understands that we are offering something of value and not just responding to the call for bids» (#16: Digital Technologies; B2B).

Previous experience serves as a way to understand the marketing processes, even if the entrepreneurs decide to change them. Therefore, it is considered important by the entrepreneurs to be knowledgeable of the rules of the game, as illustrated in the following quote from the same interviewee:

«[Previous experience] gave me the ability to detect and grab opportunities [...]. It allowed me to understand how the market works, how a company works, how the commercial processes work, how selling works...» (#4: Digital Technologies; B2B).

One interviewed CEO, who was going through his second entrepreneurial experience, after having sold his previous company, was very compelling in his arguments in favour of having previous experience. The word 'experience' is used eight times in his following comment, showing his intention of making a strong point at this regard:

«I share this a lot with fresh graduated people that want to create a company, I say: forget it, collectively you don't have **experience**, you don't have people to create and advisory board that can guide you, so forget it, your business is going to fail because there are lots of things that must be supported on **experience**. And so I suggest them to first be intrapreneurs and only when they have that **experience**, to think about creating their own business. There is a capital accumulated in having **experience** and working with people with much more **experience**, that allow us to make those strategic decisions, being able to identify risks and strategies to mitigate them [...]. I don't have any doubt in my mind that it was the **experience** of the shareholders that allowed us to make those decisions so quickly [...]. There are very few substitutes for **experience**. Only a few people achieved great things without **experience**,

unfortunately these are the stories that we hear about. We only retain the success stories, but people who start in these conditions [without experience] have little chances of success» (#6: Digital Technologies; B2B/B2C). {Emphasis added}.

When experience does not come from a previous job, it is frequently created in the early life of the company. Some participating businesses had a kind of incubation period, during which entrepreneurs not only developed products and markets, but also acquired experience and skills, that is, knowledge considered important to make better decisions in the future. The following transcript illustrates such an idea:

«Up until today [about one year from inception] we **stimulated several skills**, we **acquired different techniques** [...] there is a continuous improvement, this is a **learning process**. We get several opinions, we seek people who know [...] there is a certain humbleness in all this...» (#31: Biotechnology; B2C/B2B). {Emphasis added}.

Alternatively, entrepreneurs may continue obtaining outside experience to translate to their new projects, sharing their time between the start-up and another job. Some results of the study suggest that it can be beneficial to acquire the needed marketing competencies if, at least a part of the founders team, maintain parallel jobs in order to establish bridges with the market and partners that can add value. As one of the entrepreneurs admitted, when talking about the fact that three out of five co-founders were working also in other context, including in a promising international start-up:

«That allows us to feed from these **experiences** and acquire **competences** as we develop our own project. This decision [not all being dedicated exclusively] was due to the limitation of our business model but turned out to be very positive and helped the company to grow and develop in a way that otherwise wouldn't be possible» (#22: Business Services; B2B) {Emphasis added}.

In this case, a lack of financial resources to sustain the company during the initial phase led to the decision of maintaining some outside activity, which turned out to have positive consequences, since it allowed getting more important resources, such as knowledge and market access. However, acquiring marketing knowledge from experience only after establishing the new business may slow down the development process and delay the market entry. One participant notes that the process of learning from experience was slow but once the knowledge was gained the process accelerated a great deal:

«I have some experience of this and I have some ideas that I've been consolidating for all these years. Now I don't have any doubt in my mind that if I am going to create a start-up tomorrow, instead of taking a year and a half to launch it I only need half a year» (#18: Textiles; B2B/B2C).

In fact, previous studies have shown that experience derived from having worked in the same industry before starting a new business, has a positive impact on some performance indicators. Specific knowledge acquired previously to the creation of the company and general management knowledge acquired after the company is set up influence profitability and productivity (Soriano & Castrogiovani, 2012).

11.2.3. Knowledgeable advisors

Besides formal training and experience, a third way of acquiring marketing competency for a particular decision is through knowledgeable people's advices or mentors, as they are often referred to. In this sense, the *Whom I know* mean compensates for the lack of *What I know*. In the sample studied these mentors are indicated as being experienced people that already went through similar circumstances and that understand the constraints of deciding in context of uncertainty. These can be other CEOs, with longer experience, who offer younger ones clues to decide more effectively in a given situation, as illustrated by the quote below:

«I had a chance to have contacts with CEOs from very important companies. Having their phone number in my list is priceless, the conversations I have with them are priceless [...].He [a specific CEO] already went through this; he can help me to create shortcuts. Whenever I have a doubt I ask him: 'look, if you had to make this decision, what would you do?' When I have to make a very serious decision, I have a half a dozen of people that I contact by skype: 'Sorry to bother you, but what would you do if...'. This is of a great value!» (#27: Digital Technologies; B2B).

Another entrepreneur reported that, due to the fact that his company was a supplier of a very important European institutional customer, it was in a pool of suppliers that make regular meetings. He noted that he took those opportunities to benefit from other CEOs knowledge. He said:

«These are much more experienced people than I am or any of my associates are, and they are also interested that we grow and, therefore, they give us very direct advising. This helps reducing the risk of our decisions and validates what we are thinking about doing» (#33: Digital Technologies; B2B).

Besides experienced CEOs, two other sources of mentoring were also indicated by participant entrepreneurs. One regards to people involved in entrepreneurship capacitation programs, with the specific aim of assisting inexperienced entrepreneurs in decision making situations, including marketing, as the following transcription illustrates:

«We also have access to mentors, from the programs we attended, that help us in these decisions [talking about pricing] [...]. This is very important, first, because these are people that already created companies, being technological or not, but they went through lots of problems and they can help us. Second, they are people that move in the market for longer than we do... and sometimes alert us for other markets and other features» (#41: Digital Technologies; B2B).

The other source of mentoring indicated is from investors. These funding partners are not only financial resources providers, but also and sometimes, more importantly, a source of marketing and management knowledge that technician entrepreneurs so often lack. As a result, the entry of an investor may have the double benefit of allowing raising money and acquiring management skills. One interviewed entrepreneur considered that having a CEO designated by the venture capital institution that invested in his business was extremely important. He explained that:

«We managed to put together a great scientific team, but it was critical that it was matched with managerial competencies of the investors [...]. We think that this is fundamental because, neither I nor the other investigators have management backgrounds» (#19: Biotechnology; B2B).

Investors can also contribute with important marketing resources, such as access to market, as the following transcript illustrates:

«In a second phase we are going to seek for investors, in order to create a new company. The investor has several advantages [...] he may have contacts to create partnerships for commercialization overseas» (#21: Engineering; B2B/B2C).

In sum, marketing is generally considered important by the interviewees, but it seems that marketing competency and technical competence dispute prominence and are difficult to reconcile. This is very relevant, since previous research has shown that the ideal combination of the two areas is beneficial for the new company (Song, Di Benedetto & Song, 2010). Despite the apparent focus on the technical side of the business, it was possible to observe that more than an half of the analysed decisions were made in a context of some level of marketing knowledge. If not acquired by formal education and training, it was learned by experience.

Relevant experience for marketing decisions of start-ups can be acquired previously to the setting up of the new business, in another job, which allows shortening the development cycle. It can also be acquired in the current company, learning with the actual decisions made on a trial and error basis, but it may delay the launching process. Finally, experience can be acquired concomitantly to the current company, if some of the team members are able to share their time between the entrepreneurial project and other activities that can give them the competences needed, as long synergies can be obtained. Marketing processing capacity can also be developed by maintaining close contact with mentors, which can serve as a kind of surrogate decision makers in critical situations.

11.3. Deciding under uncertainty

We observed that, in some cases, it is possible to compensate for lack of information and marketing competency with experimentation, experience and well-informed advices, for instance. But, what guides entrepreneurs' marketing decisions when they have neither other references, nor marketing training, nor experience, nor experienced advisors available? We found that under such conditions entrepreneurs tend to make decisions aligning the options with their personal preferences and specific know-how or using a sense making logic. That is, referring to effectuation theory (Dew et al., 2008a; Sarasvathy & Dew, 2005) while marketing informed and proficient entrepreneurs mobilize primarily their *What I know* and *Whom I know* means, less marketing knowledgeable ones, make primary use of *Who I am* means when making marketing decisions. In such circumstances, decisions are made in a certain way because they are coherent with entrepreneur's expectations and vision and because they 'feel right' instead of being grounded on analytical thinking and pre-determined goals.

11.3.1. Personal preferences and know-how

Results suggest that under high levels of uncertainty new companies develop organically as decision making information is acquired and processed within a pre-existing frame of mind. For instance, one CEO decided the initial range of products to offer, based on his technical background and beliefs about what a company should be. He did not want to create just another technical product, so he designed the product/markets decisions around the idea that «[...] the company should solve people's problems» (#18: Textiles; B2B/B2C). So, starting with that axiom, he added

cutting edge technology and started to think about what could be materialized. The company started to focus on applications within the range of the background training of the funding team. From there, he looked to what was already available to the market and assessed whether his offer had advantages. Another entrepreneur expressed that he decided to make a strategic change to focus on a different segment with which he identified himself because:

«**We liked** that market and we saw an opportunity, so we decided to explore it» (#13: Digital Technologies; B2B) {Emphasis added}.

Thereby, the weight of who the entrepreneurs are, in terms of their background, life experiences and personal preferences, can deeply influence strategic choices. The following excerpt also illustrates that reasoning. Instead of researching the market to find attractive segments, the entrepreneur chose the market he knew better and with which he identified himself, as he also belonged to that same target:

«We had **chosen the market at the outset** because we knew we wanted to do something for the investigators. That was **logic** for us, because I am an investigator myself [...]» (#41: Digital Technologies; B2B) {Emphasis added}.

In fact, the study shows that when this vision is externally skewed by some circumstances, such as the interference of someone that has the power to influence decisions, the impact may be negative, not only on the business but also on the relationship of the entrepreneur with the business. The following transcripts illustrate the feelings of an entrepreneur, when talking about the decision of the investor of refocusing the company in a different segment than initially envisioned, which turned out to not yield the intended results:

«At that point I didn't believe on the strategy that was proposed by the investor and [when this strategy failed] I thought I won» (#3: Biotechnology; B2B/B2C).

«That's me who dreams the dream; that's me who pursues the dream and that convince others to follow me. That's what a person who has an entrepreneurial project does. There is no other way. We have to feel it ours [...]. When you believe and go for a dream you get there» (#3: Biotechnology; B2B/B2C).

«I dreamed with the company this way and I finally have a company that does what I created it for» (#3: Biotechnology; B2B/B2C).

Also, although recognising that one of the most difficult tasks of a new company is to sell, for some of the entrepreneurs interviewed, the main goal of the business is not that. Actually, their

personal goals end to acquire bigger prominence relatively to strategic goals as the following statement illustrates:

«Our success doesn't have to do with marketing... I mean, when I talk about marketing I talk about the activity in which the objective is to sell... we were never very concerned **about selling**, our main goal was to create a **cool workplace**» (#16: Digital Technologies; B2B) {emphasis added}.

Decisions can be prompted by internal motivations or by external triggers, as previously presented. In face of a certain external stimuli, entrepreneurs can make decisions, for example, because they detect a need and decide to act upon it, as long as it connects with their preferences and capacities. Therefore, we could find terms such as *we concluded, realized, saw*, used to describe this kind of situation. There are several examples of this type of decision conditions in the sample studied. For example, when describing the reasons why the company decided to introduce a new product in a very early stage of the business, when a previous one was not yet well developed and commercialized, the entrepreneur stated that:

«The idea for this product resulted from a curious circumstance [...]. We participated in several (events) and **realized** that they used [improvised parts to make the final product]. As **we are from this area**, we **saw things by our point of view** and thought that the participants could learn more about [our area] and **we saw** that there could be an opportunity» (#21: Engineering; B2B/B2C) {emphasis added}.

The information processing filter imposed by the identity, life experiences and interests of the entrepreneur is also illustrated by the transcript below:

«There are several inputs and some stick and others don't. This is because I identify myself with them and there is an intuition process. I also 'smell' things and I say to myself "hummm, this must be interesting" and feel motivated to act in that direction. But there are other inputs that pass by. I receive them and disconnect immediately [...]. This has to do with my past, my life experience, has to do with the book I bought yesterday [...].» (#37: Business Services; B2B).

11.3.2. Grounded intuition

While in some decisions it is possible to discern the influence of the entrepreneur's vision, personal preferences and background, in others there is no clear reason to make a particular option. In these cases, interviewed entrepreneurs fund their decisions in their sense making capability and intuition. Sense making, as defined by Bettiol, Di Maria and Finotto (2012) is an act of interpretation

to create meaning out of seemingly disconnected, chaotic and distant events and phenomena. The expression *making sense* was found often in the discourse of the interviewees, as exemplified by the following excerpts:

«We walked in [a point of sale] and it **made complete sense**. It wasn't necessary to say anything... that was it! [...]. The whole project that we have now, we draw it in the first day when we saw the space» (#31: Biotechnology; B2C/B2B) {Emphasis added}.

«At that time **it seemed to make sense** to apply for the prize» (#20: Biotechnology; B2B) {Emphasis added}.

«We came to conclude that it would **make sense** [adding new products to portfolio]» (#38: Biotechnology; B2B) {Emphasis added}.

«We concluded that **made more sense** to stop focusing on B2C products and started to focus on the B2B segment» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

When asked why they think a certain decision made sense, some interviews cannot find an obvious reason or they express the use of heuristics as depicted below:

«Why do we use internet to reach the customers? We think about what tools we use when we want something, and the internet is the number one thing. **It just makes sense to us**» (#8: Geology; B2B/B2C) {Emphasis added}.

In fact, some decisions, especially when they are made in the context of low marketing competency, denote a certain degree of unawareness of their possible consequences and of the alternatives that might exist. Decisions are made naturally because in the moment it is what seems right to decide, and the consequences are assessed only after, as the following excerpt suggests:

«There is a great deal of **unconsciousness** in all this. This is something that has been with us since the beginning [...]. Unconsciousness in the sense that we always got involved in things **without knowing very well what we are dealing with** [...]. Sometimes we are only aware of what we do, after doing it...» (#11: Business Services; B2B) {Emphasis added}.

Although we detected that deciding based on what makes sense is common among entrepreneurs with low marketing knowledge, we also found such an approach implemented by marketing competent entrepreneurs when making effectual decisions in low information contexts. However, there is a difference between an unfunded, based on intuition alone decision, and a

spontaneous and natural but supported on knowledge decision making. Such idea is portrayed in the following statement by an entrepreneur with formal marketing training:

«I personally believe very much in what **I feel**, and what I feel results from a number of **inputs that I get**. Most of the times this is not a very objective process and therefore, it is almost managing by... well, not by feeling... because it is a guess but there are indications that suggest me that it is probably right. By feeling alone, normally it will go wrong. **When things are very objective, normally the market opportunity is not there anymore**» (#26: Digital Technologies; B2B) {Emphasis added}.

The previous description of the decision making process suggests that in context of higher uncertainty, when opportunities begin to take shape and when not everybody is able to clearly identify them, entrepreneurs must rely in their own hunches, but this must be a sensible process, in order to be effective. Although information is needed to base that *feeling*, it is not often available in an abundant and structured manner. As the above quoted entrepreneur suggested, when something is very obvious it is because someone already occupied that opportunity space and made it objective. Therefore, entrepreneurs must be able to register several pieces of information, put them together and devise what otherwise would be considered an intuitive conclusion. The following quote portrays that idea:

«We connected all this information together and **it made sense for us almost intuitively**, it wasn't necessary to make a very careful planning» (#21: Engineering; B2B/B2C) {Emphasis added}.

In fact, the word *intuition* is often used to explain the sense making process. The role of intuition, as an effective approach for making management decisions has been previously studied. (Andersen, 2000; Simon, 1987). Intuition, which Sinclair and Ashkanasy (2005) define as a non-sequential mode of processing information, combining both cognitive and affective elements, resulting in direct knowing without any use of conscious reasoning, is particularly useful in contexts of high ambiguity and lack of information. To be effective, however, intuitive impressions must be combined with emotions and also logic (Patton, 2003). Our findings confirm that some of these spontaneous decisions are grounded in information and internalized knowledge that may or may not be completely recognizable in each situation, as the transcript bellow eloquently puts it:

«It is **intuition but it is founded**... it is an **educated guess** [...]. We use intuition but supported on facts and experiences that help us to minimize the risks of the decisions a bit based on intuition» (#6: Digital Technologies; B2B/B2C) {Emphasis added}.

Such an *educated guess* is recognizable in the following transcript, in which the entrepreneur explains why he decided to sponsor an event as a promotion tool:

«We did it by intuition, but there were strong indications that the event could give us a good exposure because the same event had already taken place in Spain, where it had a huge media exposure» (#12: Digital Technologies; B2B).

What is sometimes called *a feeling* is in practice the ability to be attentive to the hints that arise and being able to get information from sources considered reliable, as the following transcriptions illustrate:

«It is a **feeling**, but also has to do with what is going on and with our **attentiveness** in face of other's behaviours [...]. Obviously that attention is acquired through experience and also I asked for trusted people's opinion» (#31: Biotechnology; B2C/B2B) {Emphasis added}.

«The feeling, most of the times, is **not just feeling**. It is the result of **experience** gained. In face of some **inputs**, we react in a particular way» (#17: Digital Technologies; B2B) {Emphasis added}.

«One of the factors that characterize the entrepreneurial attitude is **awareness**. People can only undertake if they are **attentive**. I can only be adaptive and change reality or reinvent reality if I understand what is happening around me» (#37: Business Services; B2B) {Emphasis added}.

Information is related to data availability regarding to how market will behave and how business can be structured to adapt to this behaviour. However, it is only the processing capacity of the entrepreneur that allows making sense of that data and connecting different pieces of information together to set the ground for a supported marketing decision making process. This means that the availability of information alone may not allow reducing uncertainty, as it is necessary to be able to acquire it, interpret it and act upon it. On the other hand, processing capacity without information available is unprofitable. Eventually, the later situation can lead to a false sense of predictability and create riskier situations. The two conditions must be present in order to potentiate each other; otherwise, the absent condition may hinder the other.

Setting and running a start-up involves making difficult choices about which direction to channel resources, irrespectively of being limited or otherwise. As one interviewee testified, decisions are easier if the path can be drawn in advance and the entrepreneur is knowledgeable of his business. In his own words:

«It's easy when you create a company knowing in **what direction** you want to walk and where you **want to get to**, and on top of that you have **training in the area**. It's easy... and even more if you try to **know more** about other areas and try to translate it to what you do» (#2: Biotechnology; B2B) {Emphasis added}.

11.4. Section summary, research propositions verification and hypotheses

Results confirm that under uncertainty, derived from the inability to obtain the needed information to sustain decisions and/or absence of capacity to process it, entrepreneurs find it difficult to decide in a way that would allow implementing managerial marketing activities, such as market research or planning, **supporting the fourth research proposition** (*cf.* 5.3. Decision logics and the cognitive conditions to decide, p. 84). Entrepreneurs tend to use information and marketing competency resulting from experiential and observational learning to inform future marketing decisions and reduce uncertainty. Our results also confirm that marketing competency is considered important by interviewees and that it should allow processing marketing information more effectively. Such result offers indications that are **consistent with the research proposition 4a** (*cf.* 5.3. Decision logics and the cognitive conditions to decide, p. 84). However, we also found that when uncertainty is high due to lack of information about the market, for instance, marketing competency is less relevant.

When neither information nor marketing capacity exists, nor can they be obtained through the mentioned sources, entrepreneurs in our study aligned their decisions with both their personal preferences and their founded intuition. When these influences are not prevalent, decisions are made according to what makes sense, which, in some cases, may only mean that the entrepreneur is connecting the dots (Baron, 2006), that is, perceiving patterns from connections between sometimes seemingly unrelated pieces of information.

In sum, lower information availability and lower marketing competency create a context of uncertainty in which, as it was established in the previous section, entrepreneurs tend to use effectual principles to make marketing decisions. It was also previously suggested that effectuation underlies entrepreneurial marketing practices. Thus, we propose the following hypotheses:

H4. The level of information and marketing competency available influence the way marketing is implemented.

H4a. In contexts of lower information availability, when uncertainty is higher, entrepreneurs are more prone to implement entrepreneurial marketing practices.

H4b. In contexts of higher information availability, when uncertainty is lower, entrepreneurs are more prone to implement managerial marketing practices.

H4c. In contexts of lower marketing competency, when uncertainty is higher, as a result of lower processing capacity, entrepreneurs are more prone to implement entrepreneurial marketing practices.

H4d. In contexts of higher marketing competency, when uncertainty is lower, as a result of higher processing capacity, entrepreneurs are more prone to implement managerial marketing practices.

H5. The level of marketing competency influences the ability to obtain and process information, affecting the relationship between level of information and marketing practices.

H6. Conditions to decide influence the relationship between logics of decision making and marketing practices.

H6a. Information availability influences the relationship between logics of decision making and marketing practices.

H6b. Marketing competency influences the relationship between logics of decision making and marketing practices.

The question that remains to be answered is whether or not different conditions, decision making logics and marketing practices can be associated to different marketing consequences for business development. Such relationship is examined in the section dedicated to the quantitative analysis of the results. In the next section, we describe the different types of consequences for the firm's development – resulting from entrepreneurial marketing decisions – that emerged from the study.

12. Effects on business development

Critical incidents impacts were explored during the CIT interviewing process in order to identify the consequences for business development of the related marketing decisions implemented by participant entrepreneurs. The aim of this section is to present and understand those consequences within their context. This sets the basis for achieving one of the goals of the study, which is to know whether entrepreneurial and managerial marketing have different effects on business development and to understand the circumstances influencing those differences.

Previous research has shown some indications that effectuation contribute for venture's performance (Read, Song & Smit, 2009). However, little is known about the different effects that both effectual and causal decisions and both entrepreneurial and managerial marketing have on business development. This section explores the fifth research proposition, which suggests that the effects of marketing practices on business development are affected by the different circumstances constraining the ability of the entrepreneur to decide optimally.

Four main categories of consequences arose from our data: creation of business potential for future development, growth of sales and market expansion, impact on several marketing criteria, such as awareness generation, reputation and credibility, and decision results that are either disappointing or even negative for business. Figure 12.1. represents this section structure aligned with the previous ones.

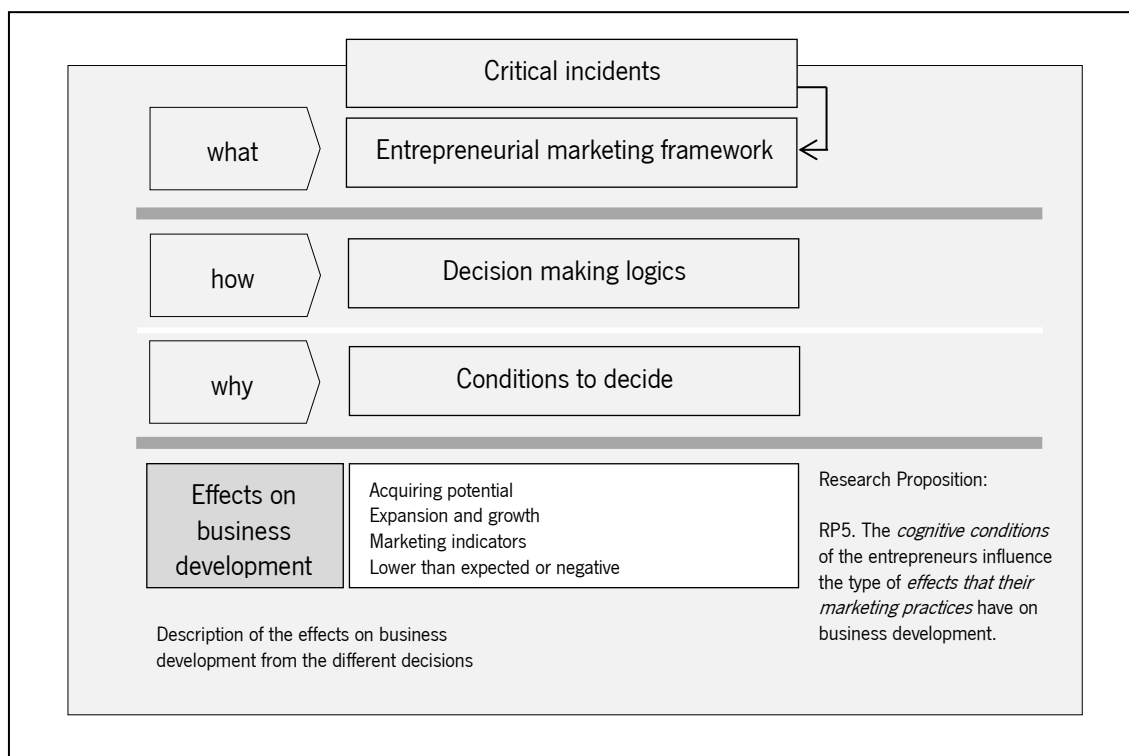


Figure 12.1. Exploration of the marketing decisions' effects on business development

12.1. Categorization of the effects

All the incidents were analysed regarding their impacts. Respondents may have indicated more than one impact, or a sequence of impacts, for each incident and they may even have been simultaneously considered positive and negative. For instance, one particular action may be considered not having produced the intended results, but at the same time, other non-expected impacts may be referred, as the following transcripts exemplify:

«The expectation was completely **thwarted**... [...]. It was like the rug was pulled from under our feet [...]. But then, we had to decide what to do... we applied for an innovation **prize and won**, which allowed funding the development process...» (#10: Engineering; B2B).

«The decision **did not result** in terms of sales and consequently much time was wasted. However, **it was good** in terms of visibility and brand awareness» (#9: Textiles; B2C)

Because multiple effects were indicated in most cases, 230 impacts were found for the 146 incidents studied, distributed as shown in Table 12.1. However, for the purpose of the quantitative analysis presented ahead only the most relevant impact for each incident was considered. For that selection, we took into consideration the emphasis given by the interviewee when describing the impacts. When no clear focus was identified, the first mentioned impact was selected. The impacts were classified into four categories: acquiring potential, expansion and growth, marketing indicators and lower than expected or negative results. These categories are detailed in the next sections.

Table 12.1. Impacts of critical incidents (marketing decisions)

Catego-ries	All	%	Most relevant	%	Examples
Acquiring potential	92	40.0	69	47.3	<ul style="list-style-type: none"> • Confirmed the feasibility of the product or business model for future exploration • Proof of concept; guarantee of productive capacity • Tested the responsiveness of the market • Networking for future deals of equipment and raw materials • Opportunity to create partnerships with competitors • Allowed to acquire business experience • Allowed to acquire management/technical competencies/access to mentors • Funding to focus on product development
Expansion and growth	57	24.8	37	25.3	<ul style="list-style-type: none"> • Enabled high prospect conversion rates • Allowed to offer new services and to reach new markets • Growth of sales and work flow / new customers • Allowed to access international markets • Relevant financial gains • Contributed to higher the profitability and efficiency
Marketing indicators	66	28.7	26	17.8	<ul style="list-style-type: none"> • Resulted in recognition, credibility and visibility • Created awareness • Allowed to reinforce positioning and brand image • Important to create a brand identity • Defined a positioning and defined a target segment • Generated referrals • The project was spontaneously featured in the media
Lower impact than expected or negative	15	6.5	14	9.6	<ul style="list-style-type: none"> • Delayed the project development • Accumulated financial losses • Diversion from the initial vision • Loss of opportunity • Low impact in terms of sales • Much time wasted • Expectation not fulfilled
	230	100	146	100	

The most frequently referred impacts are related to acquisition of potential for future. This is understandable, since new companies face a natural resistance to acceleration due to their liability of newness. Therefore, in the early life of the business, entrepreneurs tend to value events that, even though may not have immediate results, they perceive as being important for the future of the business. Incidents that result on financial outcomes, both from sales growth or otherwise, and expansion to new markets or segments are also indicated as relevant, but following the acquisition of potential and pairing with other marketing indicators. One interesting result is that negative impacts, or outcomes below expected are not very commonly referred by our interviewees. Such result may be partially explained by the frequent use of the affordable loss principle, as shown before. As entrepreneurs do not put much at stake, disappointing results have attenuated affects. Another explanation might be related with the very cognitive characteristics of the entrepreneurs. There is evidence that entrepreneurs engage significantly less frequently than nonentrepreneurs in counterfactual thinking, that is, the tendency to focus on the other outcomes that could have resulted from a given situation, which is often cause of regrets (Baron, 2004). On the contrary, entrepreneurs tend to focus more on the future and sometimes even find it difficult to identify events they regretted (Baron, 2000). The following sections develop further and explore each category of impacts.

12.2. Acquiring potential

Impacts related with the acquisition of potential for the future are the most frequently found in the descriptions interviewees make of the incidents. In total, 92 impacts pertaining to this category were indicated, 69 of which assuming a leading position in the speech of the interviewees when describing a given incident. Although not being attributed immediate benefits, some incidents are described as having opened possibilities for the future, raising the new firm's potential at the time. These impacts include opening opportunities for future exploration; acquiring capacities initially lacking; being able to validate the concept and market assumptions; creating or reinforcing the network, perceived as being an useful tool to solve future resource needs; and being able to fund research and development. These results are presented in Table 12.2.

Table 12.2. Sub-categories of acquiring potential impacts

Category	Sub-categories	All impacts		Most relevant of each incident	
		Nr.	%	Nr.	%
Acquiring potential	Create potential (new possibilities)	25	27.2	22	31.9
	Reinforce capacities	23	25.0	15	21.7
	Proof the concept / market test	21	22.8	19	27.5
	Networking	11	12.0	7	10.1
	Fund R&D	12	13.0	6	8.7
		92	100%	69	100%

Some incidents that create potential are considered critical because they allow opening new possibilities that entrepreneurs feel that the company would not otherwise have. That is, some incidents have impacts not on the business itself, but on the expectations about the imaginable business developments. In our sample, these impacts are predominantly related with the development of new high added value products or services, normally made possible by partnerships established to pursue R&D results. Although in most cases these new products were, at the time of the interview, not market ready, and sometimes, not even technically validated, entrepreneurs consider the opportunity to develop their ideas as an important milestone, even if the actual commercial impact may be deferred. Thus, the qualification of the results of the incidents refers to the future, as conveyed by the following transcripts:

«With these higher value products we **expect** higher profitability in the **future**» (#12: Digital Technologies; B2B). {Emphasis added}

«[Partnership with an incumbent] allowed us to develop a new product that we **believe** has **great potential**» (#29: Engineering; B2B) {Emphasis added}

New future possibilities can also derive from decisions about the team configuration, for instance. In these cases, we also observed that, although decisions may not have immediate results, entrepreneurs consider them crucial for the future development of the venture. Making reference to the integration of a new investigator in the team, one entrepreneur said:

«In a way, we are strengthening the initial strategy, and breaking the cycle of diversion. [With this person] we'll be able to develop new investigation products and release them to the market in a near future...» (#3: Biotechnology; B2B/B2C).

The reinforcement of capacity of the company is not only done through new team members. Several incidents are associated to learning outputs that are considered essential for a more grounded future decision making process. These lessons from experience are markedly valued, namely when they result from working closely with customers, as the following transcript illustrates:

«As they [customer] had a very strong informatics department, we were able to use alternative tools allowing both the product and ourselves to evolve» (#5: Digital Technologies; B2B).

Learning can also be leveraged by the collaboration with partners, the support from mentors and even investors and also by difficult situations or errors. It is worthy to note that, in several cases of lower than expected results of a given decision or action, there is often a reference to a lesson learned, which is consistent with previous results (Cope & Watts, 2000). When describing the consequences of a project that failed to be commercialized, one entrepreneur stated that:

«It was frustrating, but the company was not hampered. That was an important learning opportunity, though. The next project was already more thoughtful...» (#21: Engineering; B2B/B2C).

Competences acquired by experience have a recognized impact on future decisions and allow refining products and marketing actions, supporting the expectation of better future results. Particularly in the early phases of the business, incident's impacts related to knowledge acquisition for later exploration are more valued than their immediate financial profits. When talking about a critical client that the company managed to gain shortly after it was created, the CEO told that:

«[...] it wasn't profitable, but it was very important. This client brought us experience that we lacked and also awareness and reputation...» (#34: Digital Technologies; B2B).

Capacitation is also associated to the participation in training or acceleration programs. As a result, interviewees reported that «It forced us to work upon the idea» (#20: Biotechnology; B2B); «we gained management capacities» (#41: Digital Technologies; B2B) and that it «...helped to collect information to understand the potential of the business» (#29: Engineering; B2B).

Regarding the validation of the business assumptions, it can either result from actions undertaken with that very intent, such as consulting experts or prospects, therefore consisting in an

expected impact, or from other events, which did not have that initial purpose. In the latter case, the validation result can come from a sales encounter or another kind of interaction opportunity, as exposed before, or it can be a conclusion drawn simply from the offer being accepted, especially by reference customers. In fact, we observed that entrepreneurs sometimes highlight this output when describing an incident related with being able to close a deal with a prominent customer, as expressed below:

«It was a validation of our value... [referring to a high profile customer]. They are very demanding because they have a reputation to maintain. So, for us it was an indication that our work has quality» (#25: Digital Technologies; B2B).

Networking is another relevant output of incidents reported by interviewees. In our sample, some entrepreneurs stressed that new established contacts are important resources for future exploitation. Despite the importance of these new links be consistently recognized, we did not find a clear sense about the concrete benefits that can be achieved through networking. In some cases, the possibility of converting the contact in a future customer, partner or supplier is mentioned, but most of the times, entrepreneurs do not have a particular purpose when establishing or enlarging the network. Entrepreneurs seem to have a strong belief that if any resources or competences are needed in the future, the network would be an important support, which allows building confidence in the present. In our study, reported incidents that resulted in growing the network are mainly related with the participation in events, being trade fairs or shows, conferences or cultural events. However, it is also often associated with the participation in joint research projects or pools of suppliers. Another circumstance contributing to add elements to the network is the participation in entrepreneurship capacitation programs.

Being able to obtain funding to support the investigation and development of new products is identified as another output of some incidents that contribute for future potential. In fact, when talking about the entry of an investor or winning a monetary prize, interviewees have never associated these events to being able to growth the business, by investing in sales expansion actions or awareness generation, for example. All the descriptions pointed to the possibility to better or faster develop a new product that was expected to yield future returns.

According to the participants, potential for future can also be attained by not compromising the present, particularly in what regards to financial support. Thus, incidents that resulted in self-funding availability to support research and development activities at the early life of the company are

also indicated. This impact is, in part, closely related with portfolio expansion decisions, discussed earlier. In fact, several incidents regarding expansion of the offer, typically to integrate easier and readier to market products, are described as having had the ability to provide financial resources to sustain the longer development cycle of the products that are more innovative and central for the business. Thus, interviewees state that financial incomes from added offers ready to sell allowed to: «sustain the otherwise impossible development of a new technology» (#24: Biotechnology; B2B) and «generate revenues to support the company while maintaining R&D» (#29: Engineering; B2B).

This enabling purpose is considered important, since entrepreneurs understand that a product with a considerable future potential can be compromised due lack of immediate business sustainability or high risks assumed. To lower the risks participant entrepreneurs tend to prefer self-funding through business revenues but also through the creation of partnerships to share the perils and to reinforce capacities.

12.3. Expansion and growth

Impacts on business expansion and growth are also indicated by participants when describing the critical incidents that influenced the business development. These impacts represent 24.8% of all outputs identified and this percentage rises slightly to 25.3% when only the main impact of each incident is considered. Impacts on expansion and growth include being able to enlarge the market scope and increase sales, but also extending the revenue streams and being able to develop activity in a more efficient and quick way. Table 12.3. shows the distribution of this category of impacts.

Table 12.3. Sub-categories of expansion and growth impacts

Category	Sub-categories	All impacts		Most relevant of each incident	
		Nr.	%	Nr.	%
Expansion and growth	Market expansion and sales growth	36	63.2	24	64.9
	Relevant financial gains	12	21.0	6	16.2
	Efficiency and speed	9	15.8	7	18.9
		57	100	37	100

Regarding market expansion and sales growth, these impacts result mainly either from the acquisition of important customers for the core offer, the enlargement of the customer's base for the main offer or from the incorporation of additional offers. Gaining new markets and expanding sales can result spontaneously through market requests, or can derive from changes in the commercial approach. Considering the limited resources start-ups have to reach a broader market, and the high levels of uncertainty, entrepreneurs may experiment different commercial approaches, both in terms of target-markets and channels used. Some of these experiments eventually reflect on sales growth. In our sample, expansion in sales is also achieved by creating shortcuts to the market through partnerships allowing adding value to the offer and using the existing channels of the partners. Internationalization is often related to growth impacts, as well. These ideas are illustrated in the following transcripts:

«We understood that it would be more advantageous and profitable for us to license our products instead of selling them directly to the final consumer [...]. For our [B2B] customer, it is easier to reach a very large market» (#6: Digital Technologies; B2B/B2C).

«Then, we decided to create partnerships with insurance and pharmaceutical companies in order to gain market» (#2: Biotechnology; B2B).

«Spain was our first market, and it was where we sold substantially more...» (#7: Textile; B2C).

Although it represents a considerable percentage within this category, market expansion and sales accounts for just 15.7% of all mentioned impacts. Being sales related indicators objective measures of business development, which are, in fact, the most frequently used to assess performance in entrepreneurship (Murphy, Trailer & Hill, 1996), it would be expected higher focus on them. This was not the case, however, suggesting that other measures must be considered when assessing start-up results. In fact, we found several indications that the conversion of an opportunity into market growth or sales is not always the first thing being considered. For instance, when describing the results of the involvement of the company in a project with a fairly good public exposure, one entrepreneur said that:

«If it had impact on the market, we did not notice it yet. [...]. On the other hand, for our peers [...], entities with which we could create partnerships, it was very important...» (#8: Geology; B2B/B2C).

Contributing for company's growth are also important financial gains resulting mainly from occasional, typically contingent, selling situations. These may include a large order for a service, or

selling an internally developed project as a whole. In these situations, the incident does not define a consistent growth trend or initiate an expansion movement; rather it is a one-off event that allows boosting the company financially, contributing for its short-term sustainability. This situation, however, creates the conditions for the companies to focus on growing without the continuous worry about the immediate sustainability.

Again, we observed that although being indicated as having relevant impacts, short-term financial results are sometimes devalued comparatively to other potential impacts, such as gaining visibility and confirming reputation in the market. The following excerpt of a CEO describing the impacts of the acquisition of a big customer in the early stage of the company, illustrates such an idea:

«If it was today, maybe I wouldn't do that contract... It allowed gaining experience but we had no visibility because of the conditions of the contract [...]. The most important result was in terms of the financial intake... the company lived with difficulties at the time and the guarantee of that monthly fee was very important for us...» (#34: Digital Technologies; B2B).

Finally, incidents that allow the young firm to gain efficiency and speed up the development process are too indicated as impacting the growth. These impacts are related to both the ability to scale up and obtaining cost savings and to the creation of knowledge that allows making more effective decisions. In fact, efficiency and speed outputs are generally identified in a context of higher level of information and marketing competency. We observed that 88.9% of these effects resulted from decisions made when information existed and 100% when marketing competency was available. Under such conditions, efficiency and speed derive from a purposeful and strategic decision of the entrepreneur about directing resources to what the company can do and it does better. That may involve suspending lateral activities or divesting from certain market segments. It can also demand reorganizing the company to adjust to the new offer configuration making possible that «everyone knows what is going to be done» (#26: Digital Technologies; B2B). These choices allow entrepreneurs to concentrate on speeding up the company mainly through leveraging «efficiency advantages» (#27: Digital Technologies; B2B). At this point, the company begins to monetize the lessons learned along the start-up process.

12.4. Marketing indicators

This category of impacts encompasses all incidents' results that contributed for the young firm to acquire visibility and to win a credible position at the eyes of the market. Also included in this category are other strategic impacts, that is, changes resulting from market redefinition, segmentation and targeting or changes in portfolio that although not necessarily resulting in growth, allowed a greater business clarification, ultimately contributing for a more coherent and purposeful positioning. These impacts are presented in

Table 12.4. Marketing indicators impacts represent 28.7% of all impacts and only 17.8% of the main impacts for each incident. This low incidence may be explained by the fact that some of these impacts are also associated to the expansion and growth effects described above. Another explanation is related to the fact that not always entrepreneurs are able to accurately assess these impacts, therefore disregarding them. For instance, when explaining the results of launching a product specifically made to serve as a promotion tool, one entrepreneur said that:

«We aren't very sure, but we think that we've been already contacted... for service requests and it must have been because of that. It couldn't be because anything else... we have nothing else that could make us reach those people... we didn't ask them where they heard about us, though...» (#32: Digital Technologies; B2B/B2C).

Table 12.4. Sub-categories of marketing indicators impacts

Category	Sub-categories	All impacts		Most relevant of each incident	
		Nr.	%	Nr.	%
Marketing indicators	Image/positioning	25	37.9	14	53.8
	Awareness	22	33.3	11	42.3
	Strategic impact	19	28.8	1	3.8%
		66	100	26	100

Regarding the impacts relating to the new company brand image and positioning, most of them gravitate towards the importance attributed to being able to grow «credibility» (#38:

Biotechnology; B2B); «competency validation» (#25: Digital Technologies; B2B) and market «reputation and visibility» (#4: Digital Technologies; B2B). These effects resulted often from the inclusion of a big and reputable customer in company's portfolio, but also from being awarded a prize or initiating a relationship with a high profile partner. Physical facilities were also considered important for the consolidation of a reputable image.

Important customers not only help to sustain a credible position in the market, leveraging confidence, but also benefit the company in terms of awareness, as they attract references in the media and interest from their own competitors. Therefore, within this category we found again an explicit valuation of these outputs over the financial ones. In fact, although the idea of lack of resources it is commonly associated to funding shortages, it seems to be relevant to consider other scarcities such as notoriety, credibility and trust, which are more often referred in our study. Some of these impacts are related with the *productisement* function of the product, as discussed in the section describing entrepreneurial marketing practices. The following transcripts offer some examples of these ideas:

«It was not a big client in the sense that they **paid me almost nothing**, but it was important for us... I mean, for me, because at that time the company was just me, to gain **experience and awareness**. Starting the **portfolio** with a job like that was very good» (#34: Digital Technologies; B2B) {Emphasis added}.

«**It wasn't our** [financial] **leverage product**, but it was an excellent **presentation card** [...]. It was important to have a product to show in our **portfolio** in order to present ourselves to the market as **a product company** [...]. It was moderately well succeeded commercially [...] but there are several people that know us because we are the company that made that product. It turned out to be **very important** as a means to **present the company to the market**» (#6: Digital Technologies; B2B/B2C) {Emphasis added}

Interviewees also attribute awareness gains to incidents such participation in some events, the release of the company website and integrating networking platforms, especially with international ramifications.

Regarding other strategic impacts, they may include discovering or creating a «new business area» (#21: Engineering; B2B/B2C) either from market requests or from own initiative, «reinforcing the initial vision» (#3: Biotechnology; B2B/B2C) through team reconfiguration or «business model

changes» (#23: Digital Technologies; B2B); «changes in commercial strategy» (#10: Engineering; B2B) or even «reorganizing the whole company» (#26: Digital Technologies; B2B).

All of these impacts represented fundamental alterations in the way participating companies related and presented themselves to the market. Some of these impacts are not clearly identifiable neither as potential creators nor as company growers, instead may they just represent adjustments needed to correct the path or to consolidate a position. They are considered important, however, mainly because they have an indirect impact in the way the company is perceived, as the following transcript depicts:

«This was an opportunity to include a cutting edge technology application in the company and to create a new business area, which benefited us as a whole» (#30: Digital Technologies: B2B/B2C).

Table 12.4. shows that only one impact within this sub-category is considered the main output of the incidents considered. One possible explanation is that most times entrepreneurs do not immediately identify the strategic implication of a given event or decision. It was only after considering other consequences, which could be classified within other categories, and sometimes during the probing questions, that some entrepreneurs concluded about the strategic importance of some events.

12.5. Lower than expected or negative

The last category of impacts concerns incidents that either converged into disappointing results or that had really negative consequences. As noted earlier, this category represents the smallest group of impacts. Table 12.5. shows that only three incidents were described as having had negative consequences, whereas 12 disappointing results were identified.

Table 12.5. Sub-categories of lower impact than expected or negative impacts

Category	Sub-categories	All impacts		Most relevant of each incident	
		Nr.	%	Nr.	%
Lower impact than expected or negative	Results below expected	12	80.0%	12	85.7%
	Other negative impacts	3	20.0%	2	14.3%
		15	100%	14	100%

Negative results are either related to substantial financial losses or refer to situations that threatened the very continuity of the company. In two out of the three reported negative situations, external investors were involved. Although in most cases the financial and even management competency intake allowed by the entry of investors are considered positive, in these mentioned situations there was a combination of conditions that resulted negatively. Either a substantial amount of money was invested in a single course of action, within a context of high uncertainty due to the novelty of the business area; or there was not a clear harmony between the vision and aspirations of the entrepreneurs and the investors. These situations are portrayed in the following transcripts:

«There's a power that we gain... to fulfil objectives that we have... The investor gave us a financial cushion to implement projects and ideas that we had when we started the company and that we defined in the business plan [...]. But all this money was somehow wasted in initiatives and decisions influenced by the investor that we see now that were wrong and didn't contribute to the business competitiveness [...]. In a two years period we accumulated 120 thousand euros in losses» (#2: Biotechnology; B2B).

«This was a huge shock for me because this was not what I created the company for [...]. And therefore, I didn't accept [...]. The investor provided us training on how to approach the market and we hired a sales person [...] but it didn't work out. I committed myself, but it didn't work out» (#3: Biotechnology; B2B/B2C).

Regarding the unsatisfying results, they include perceived inefficiencies and delays in the take-off process, low levels of sales and low revenues, market disappointing responsiveness and indiscernible short-term results, especially regarding promotion decisions. Frustration and some discourage feelings were sometimes associated with these incidents, but the overall mental state is positive and focused in the lesson learned, as earlier mentioned. These results can derive directly from decisions of the entrepreneur, respecting such areas as channel choices and communication

tools used or they can be a consequence of the inability to decide effectively in face of an adverse contingency, such as the declining of a market segment, or the failure of a commercial partnership, as the following transcripts exemplify:

«We then decided to sell only online [...]. It didn't work. The acceptance was very low [...] we learned that this was not the best decision» (#9: Textiles; B2C).

«[When a commercial partnership failed] not only we lost that connection with the market but also we didn't managed to find another partner able to potentiate this product, which lead it to stay in the shelf until today» (#21: Engineering; B2B/B2C).

The indication that some events lead to delays in the acceleration of the company progress is, in fact, one of the most often presented. When uncertainty is high and new companies have to explore several possible routes of development, entrepreneurs may feel that they are wasting too much time. Also delaying the speed up process are the waiting for public funding and the need to reorganize activities due to the disconfirmation of market and technical assumptions and failed partnerships. The transcripts below illustrate these results:

«This is a learning process... we are talking about almost four years... By this time other type of company should have taken off» (#7: Textiles; B2C).

«[Restructuring the business model] was essential to commercialize the product, but it was very difficult and delayed the start up process» (#10: Engineering; B2B).

12.6. Section summary, research propositions verification and hypotheses

Results show that participant entrepreneurs attribute little importance to negative events or low results of any event or decision, rather focusing on the potential for the future that critical events may offer. In fact, we observed that the most frequently referred impacts of the critical incidents and marketing decisions point towards the future, meaning that they are perceived as acquisition of conditions that can be explored later in time, particularly by entrepreneurs of younger companies and when uncertainty to make decisions is higher.

Results also show that expansion and growth effects, which are, sometimes, underrated comparatively to the possibility of developing conditions for future exploration, are not only related with

particular events, such as the acquisition of an important customer, but also with the ability to establish a more efficient activity, which typically can be done only when uncertainty lowers.

Therefore, results provide some indications that different conditions, which can influence the decision making process and its resulting marketing practices, may lead to different impacts, which is **consistent with what the fifth research proposition** establishes (*cf.* 5.4. Marketing effects on business development, p. 86). Such a suggestion, and others resulting from the qualitative analysis of the data, is tested in the following section. To this purpose, the following hypotheses are proposed:

H7. The level of uncertainty is associated with different effects on business development.

H8. Effectuation and causation logics have different effects on business development.

H9. Entrepreneurial and managerial marketing practices result in different effects on business development.

H10. Different effects on business development are explained by the marketing practices, logics and decision making conditions.

13. Quantitative analysis

As previously indicated, our study intends to contribute to deepen the understanding about the entrepreneurial marketing concept, by developing the notion of marketing-in-context. It is worth remembering that the terms context, conditions to decide and circumstances are used in our study as equivalent concepts to refer to the constraints of the marketing decision making process. Results presented so far offer interesting evidence that entrepreneurs make different decisions, under particular conditions and that they produce a diversity of results that seem to be related to that context. In this section we explore the relationships between conditions to decide, decision making logics, marketing practices and their results in order to confirm the indications emerging from the qualitative data.

As described in the part of the thesis dedicated to methodology, relevant themes resulting from content analysis were quantitized in order to obtain variables for quantitative exploration. The following variables were obtained and used in the quantitative analysis: marketing practices (entrepreneurial or managerial); decision making logics (effectual or causal); level of uncertainty (higher or lower); level of information available to decide (higher or lower) and level of marketing competency (higher or lower), which are dichotomous variables; and effects on business development, incidents by functional type and incidents by nature, which are nominal variables.

The statistics used are exploratory for a number of reasons. Firstly, because the main intent of the study is to understand better the entrepreneurial marketing construct, which was mainly achieved through the qualitative analysis. Our aim in analysing quantitatively the data is not to offer generalizable explanations about the theme but only to explore the data from a complementary point of view. Secondly, due to the type of variables obtained from quantitizing the qualitative data, which imposes limits to the applicable tests. Therefore, only independence tests, association measures and categorical regression are used, which are appropriate to explore the nominal variables (Maroco, 2012). The Chi-square test for independence is used to determine whether a statistical association between two categorical variables exist, the phi coefficient is used to analyse the degree of association between the nominal variables of a 2x2 contingency table and Cramer's V statistics is used to express effect size when the contingency table is larger than 2x2 (Corder & Foreman, 2009). The multinomial logistics regression is used to explain the marketing decisions's effects. Being decision effects a

categorical variable that assume more than two values, the multinomial logistics regression is appropriate to the analysis (Powers & Xie, 2008).

Finally, and particularly referring to the intermediate development state of the research on the main theory explored in the study, that is, effectuation research, as Perry, Chandler and Markova (2012) note, in this state «[...] it is appropriate to transition from content analysis to exploratory statistical analysis and preliminary tests» (p. 20). Figure 13.1. presents an overview of the main relationships explored in this section.

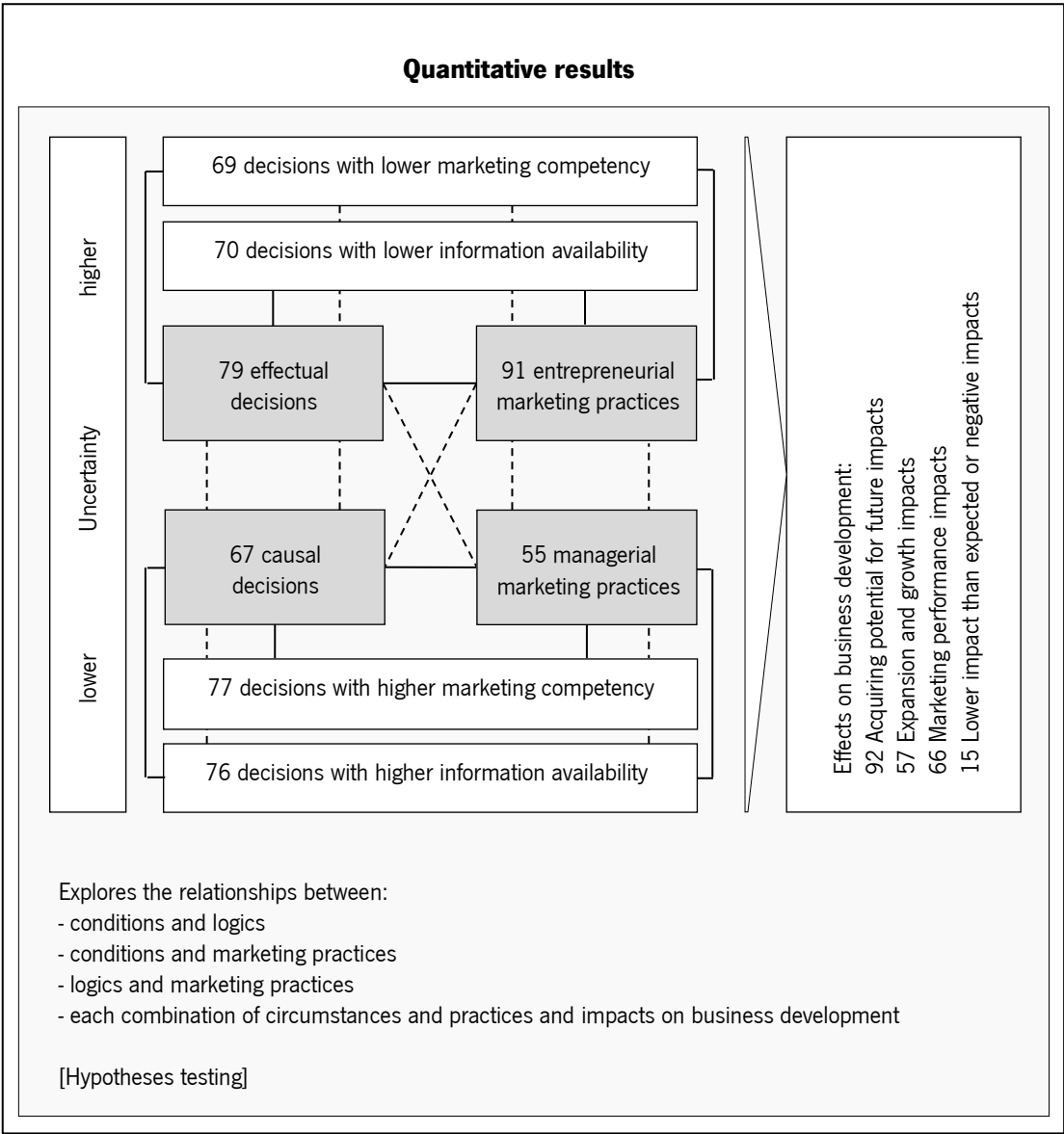


Figure 13.1. Quantitative data exploration structure

13.1. Marketing practices and their underlying decision making logics

As mentioned before, the study is based on the assumption that entrepreneurial marketing follows an effectual decision logic, while managerial marketing is based on a causal logic. Both previous literature and the qualitative results of the research offer evidence that supports the consistency between marketing practices and decision making logics. The current section explores quantitatively such relationship.

Following the classification described in both the Methodology and the section presenting the Entrepreneurial Marketing Framework, we found a greater proportion of **entrepreneurial marketing practices** (91, corresponding to 62.3%) than managerial marketing practices (55, corresponding to 37.7%) resulting from the decisions analysed, as it would be expected. To test whether statistically significant differences exist between the proportion of entrepreneurial marketing practices and managerial marketing practices in our sample, the Binomial Test was implemented. The statistic shows that the proportion of entrepreneurial marketing practices is statistically different from 50%, with a significance level of 0.004 ($N=146$).

Our first hypothesis was that entrepreneurial marketing practices are different from managerial marketing practices, being associated to decisions of different nature. Concerning the nature of decisions, it is worth remembering that it refers to two main categories of decisions: a) spontaneous, which are decisions coming directly from the entrepreneur without any specific stimulus and that are subdivided into a1) haphazard/emergent, more immediate and a2) planned, which are more purposeful and based on prediction; and b) stimulated, which are triggered by a critical event and subdivided into b1) interaction and b2) contingency. Consistent with previous analyses, decisions stimulated by interactions and contingencies are grouped together.

Results show that entrepreneurial and managerial marketing practices are associated to different decision natures. We can observe (Table 13.1.) that entrepreneurial marketing practices are predominantly associated to emergent and stimulated decisions. On the other hand, managerial marketing practices are more often associated to planned decisions. The Chi-square Test allows to reject the independence hypothesis ($\chi^2 = 20.596$; $P=0.000$; $N=146$).

Table 13.1. Marketing practices by nature of decisions

Marketing practices	Nature of decisions			Total
	Haphazard/ emergent	Planned	Stimulated	
Entrepreneurial	24 (68.6%)	16 (35.6%)	51 (77.3%)	91 (62.3%)
Managerial	11 (31.4%)	29 (64.4%)	15 (22.7%)	55 (37.7%)
Total	35 (100%)	45 (100%)	66 (100%)	146 100%

With respect to the association of marketing activities with the characteristics of the sample, we found that they are independent of most demographic aspects, both regarding the companies and entrepreneurs. The only exception is for company's newness. Considering that the median of companies' age is 4.3 years, we divided the sample in two age groups: up to four years and more than four years. We can observe that the prevalence of entrepreneurial marketing practices is higher among younger firms (68.3%), than it is among older firms (54.7%), although the differences in the proportions of the types of marketing used are not very prominent, especially in the 'older' group (Table 13.2). In fact, when applying the Chi-square test, the relationship between age of the firm and marketing practices is significant, but only at the 0.10 level ($\chi^2 = 2.834$; $P=0.092$; $N=146$). Following the interpretation of Marôco (2010), at this level of significance, the effect is considered only marginally statistically significant or quasi-significant.

Table 13.2. Marketing practices by firms' newness

Marketing practices	Firms' newness		Total
	Younger (Up to 4 years)	Older (More than 4 years)	
Entrepreneurial	56 (68.3%)	35 (54.7%)	91 (62.3%)
Managerial	26 (31.7%)	29 (45.3%)	55 (37.7%)
Total	82 (100%)	64 (100%)	146 (100%)

The quantitative analysis confirm the results from the qualitative study evincing that entrepreneurial marketing practices are different from managerial marketing practices. Although they

are not associated with most demographic characteristics, there is a relationship between marketing practices (entrepreneurial versus managerial) and decisions of different nature, which are also likely to be different in younger and older firms. Therefore, the results support the first hypothesis:

<i>H1. Entrepreneurial marketing is associated with types of decisions that differ from those associated to managerial marketing.</i>	Supported
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Regarding the **decision making logic**, we found a certain balance. The effectual rationality was identified in 79 (54.1%) of all decisions analysed, whereas causal logic and principles were identified in 67 (45.9%) of the marketing decisions (Table 13.3). What is interesting to note is that only seven entrepreneurs (corresponding to 16.7% of sample) reported causal decisions exclusively, while 26.2% referred to only decision making situations that can be classified as effectual (Table 13.3). The majority (57.1%), however, described a mix of situations to which each one of the logics was applied. This result adds evidence to the suggestion that same entrepreneurs may use different logics under different circumstances.

Table 13.3. Decision logics by interviewees

Decisions classification	Number of interviewees	Number of decisions reported classified by logic (effectual vs causal)
Only effectual	11 (26.2%)	79 (54.1%)
Both	Effectual	67 (45.9%)
	Causal	
Only causal	7 (16.7%)	
Total	42 (100%)	146 (100%)

Regarding the relationship between decision making logics and nature of decisions, as it would be expected, we observed in our sample that while planned decisions follow predominantly a causal logic, stimulated decisions and emergent decisions are associated with an effectual logic (Table 13.4.). This relationship is also significant and the association, measured by the Cramer's correlation coefficient is moderately strong ($\chi^2=63.979$ $P=0.000$; $N=146$; Cramer's $V=0.662$).

Table 13.4. Decision logics by nature of incidents

Decision logics	Nature of decisions			Total
	Haphazard/emergent	Planned	Stimulated	
Effectuation	21 (60.0%)	3 (6.7%)	55 (83.3%)	79 (54.1%)
Causation	14 (40.0%)	42 (93.3%)	11 (16.7%)	67 (45.9%)
Total	35 (100%)	45 (100%)	66 (100%)	146 (100%)

The same pattern described before regarding the overall independence of marketing practices from the demographic characteristics of the sample was also found for the decision logics variable, with one exception regarding the area of education of the decision maker. We found a lower incidence of decisions based on effectuation principles made by entrepreneurs with background education in economics and management (20.7% of effectual against 79.3% of causal decisions), than in decisions made by entrepreneurs with different backgrounds (62.4% of effectual against 37.6% of causal decisions) (Table 13.5.). This relationship is also significant, although the association is not very strong, in this case measured by the Phi coefficient ($\chi^2 = 16.277$; $P=0.000$; $N=146$; $\Phi=-0.334$).

Table 13.5. Decision logics by background education are of the entrepreneur

Decision logics	Entrepreneur's background education area		Total
	Economics and management	Other educational areas	
Effectuation	6 (20.7%)	73 (62.4%)	79 (54.1%)
Causation	23 (79.3%)	44 (37.6%)	67 (45.9%)
Total	29 (100%)	117 (100%)	146 (100%)

This result is consistent with the literature suggesting that managers are taught to think within a causal logic (Dew et al., 2009a; Read et al., 2009a). It also suggests that while the decision making logic seems to be influenced by the background education, which establishes a certain frame of thinking, marketing practices are influenced differently. In fact, being associated to the firm's newness suggests that marketing practices can be more influenced by uncertainty, which is typically more

acute in the early life of the company. As our qualitative results show, information and competency needed to reduce uncertainty can come from experiential learning, which may take some time. The relationship between the different sources of marketing competency and the way participant entrepreneurs make decisions and implement marketing is further explored in the next topic (*cf.* 13.2. Influence of conditions to decide on logics and marketing practices).

The results further suggest that logics of decision making, that is, the way of thinking, may not be completely entangled with marketing practices, that is, the way of acting. It is possible that, for instance, one entrepreneur may decide to establish goals, believing that they should guide the whole company's path, but in particular situations he/she could act differently constrained by the conditions. Nevertheless, we hypothesized that marketing practices are associated to different decision logics. There is, in fact, a higher prevalence of entrepreneurial marketing activities (84.8% against 15.2% of managerial marketing) when entrepreneurs use the effectuation logic. Conversely, we found a higher prevalence of managerial marketing practices (64.2% against 35.8% of entrepreneurial marketing) when entrepreneurs use a causal rationality (Table 13.6).

Table 13.6. Relationship between marketing practices and decision making logics

Marketing practices	Decision logics		Total
	Effectuation	Causation	
Entrepreneurial	67 (84.8%)	24 (35.8%)	91 (62.3%)
Managerial	12 (15.2%)	43 (64.2%)	55 (37.7%)
Total	79 (100%)	67 (100%)	146 (100%)

To assess whether each marketing practices is related to the logics of decision making used, the Chi-square Test of independence was used. The test allows to confirm that marketing practices are not independent of decision making logics ($\chi^2 = 35.055$; $P=0.000$; $N=146$). In fact, the two variables have a moderate positive correlation ($\Phi=0.504$), allowing corroborating the following hypotheses:

<i>H2. Marketing practices are associated with decision making logics.</i>	
<i>H2a. Entrepreneurial marketing practices tend to be used under an effectual decision making logic.</i>	Supported
<i>H2b. Managerial marketing practices tend to be used under a causal decision making logic.</i>	Supported

The qualitative results of our study show that marketing decisions and practices do not happen in a void; instead they are forged by a context that can be more or less filled with uncertainties. The next section explores the relationships between conditions to decide and the marketing decision making process and practices.

13.2. Influence of conditions to decide on logics and marketing practices

The results of the qualitative study confirmed that **uncertainty** regarding marketing decisions is lower when either the **information available** or the **marketing competency** or both are higher. However, in knowledge-intensive areas, from which sampled companies were selected, it is common having to decide with limited information and/or with little marketing expertise.

When analysing the decision making process, we observed that 47.9% of the decisions were made without the support of relevant information (Table 13.7.). Information was considered lower or inexistent when markets and/or products are new and when there are few or no comparable references against which to measure the adequacy of the decision being made or when such information is considered difficult to obtain, as explained in Section 11. Concerning marketing competency, 47.3% of the decisions were made in the context of lower and 52.7% in context of higher marketing competency. We can also see in Table 13.7. that only 26.7% of the decisions were made in a context of both information available and higher marketing competency, while the great majority of decisions happened under higher degrees of uncertainty.

Table 13.7. Information availability and marketing competency

Marketing competency	Information availability		Total
	Lower	Higher	
Lower	32 (21.9%) of total	37 (25.3%) of total	69 (47.3%)
Higher	38 (26.0%) of total	39 (26.7%) of total	77 (52.7%)
Total	70 (47.9%)	76 (52.1%)	146 (100%)

As described in Section 11., decision makers were considered to have higher **marketing competency** when they had formal education or training in marketing or management, had marketing experience, either previous to start-up or obtained by experiential learning during the management of the current company or by being advised by a marketing competent person. When none of these conditions were available, participant entrepreneurs made marketing decisions either by using their personal preferences and technical capabilities as a reference or by following their intuition, which was typically grounded in their cognitive capacity to recognise patterns (Baron, 2006), use shortcuts to decide without ideal conditions (Busenitz & Barney, 1997) and give sense to their options (Bettiol, Di Maria & Finotto, 2012). Table 13.8. shows the distribution of the different indicated situations in our sample. We can observe that the larger contributor for higher marketing competency associated with the analysed marketing decisions is experiential learning. Formal education or training is the second most referred source of marketing knowledge.

Table 13.8. Marketing competency for making marketing decisions

Decisions' associated marketing competency			
Higher marketing competency		Lower marketing competency	
Formal education or training	31 (21.2%)	Personal preferences and know-how	46 (31.5%)
Marketing experience	33 (22.6%)	Grounded intuition	23 (15.8%)
Knowledgeable advisor	13 (8.9%)		
77 (52.7%)		69 (47.3%)	

When evaluating the association of demographic characteristics of the sample with decision logics and marketing practices for all analysed decisions ($N=146$) in the previous topic (*cf.* 13.1.), we observed that there is a significant association between having background education in economics and management and causal rationality. The influence of such education was not found for managerial marketing practices, however.

When considering only the decisions made with a higher degree of marketing competency ($N=77$), results presented on Table 13.9. confirm that when decisions are made in a context of higher marketing competency based on formal education or training in areas including marketing, the causal rationality is prevalent (83.9%) in relation to effectual rationality (16.1%). As for the marketing practices, in the same circumstances, we do not see as much discrepancy between the managerial (51.6%) and entrepreneurial (48.4%), but the association between different marketing practices and types of marketing competency is statistically significant although it is stronger for decision logics.

Table 13.9. Logics and practices by type of marketing competency

Marketing decision making		Higher marketing competency			Total	Association
		Formal education or training	Marketing experience	Knowledgeable advisor		
Decision logics	Effectuation	5 (16.1%)	10 (30.3%)	7 (53.8%)	22 (28.6%)	$\chi^2=48.110$ $P=0.000$
	Causation	26 (83.9%)	23 (69.7%)	6 (46.2%)	55 (71.4%)	
Total		31 (100%)	33 (100%)	13 (100%)	77 100%	N=77
Marketing practices	Entrepreneurial	15 (48.4%)	13 (39.4%)	5 (38.5%)	33 (42.9%)	$\chi^2=26.988$ $P=0.000$
	Managerial	16 (51.6%)	20 (60.6%)	8 (61.5%)	44 (55.1%)	
Total		31 (100%)	33 (100%)	13 (100%)	77 100%	N=77

As suggested before, the implementation of marketing activities is influenced by uncertainty, particularly by the **availability of information** to make decisions. The lack of support information is more common when decisions are stimulated by events (62.1%), as shown in Table 13.10. On the other hand, a larger proportion of planned decisions (60.0%) or decisions resulting from the initiative

of the entrepreneur (68.6%) are made when information available is higher. The relationship is statistically significant ($\chi^2=10.278$; $P=0.006$; $N=146$).

Table 13.10. Levels of uncertainty by nature of decisions

Level of uncertainty		Nature of decisions			Total
		Haphazard/ emergent	Planned	Stimulated	
Information availability	Lower	11 (31.4%)	18 (40.0%)	41 (62.1%)	70 (47.9%)
	Higher	24 (68.6%)	27 (60.0%)	25 (37.9%)	76 (52.1%)
Total		35 (100%)	45 (100%)	66 (100%)	146 100%
Marketing competency	Lower	26 (74.3%)	1 (2.2%)	42 (63.6%)	69 (47.3%)
	Higher	9 (25.7%)	44 (97.8%)	24 (36.4%)	77 (52.7%)
Total		35 (100%)	45 (100%)	66 (100%)	146 100%

Table 13.10 also shows that almost all planned decisions were made by participant entrepreneurs that have higher marketing competency. However, only 60% of all planned decisions happened in a context of higher information availability. This may be related to the fact that marketing competent entrepreneurs may be more prone to plan even when conditions are not favourable to making predictions. On the opposite direction, stimulated decisions and haphazard/emergent decisions are more frequent in contexts of low marketing capacity. Regarding the haphazard/emergent decisions, which are proactive and immediate, they are significantly more frequent when lower marketing capacity is available, which may suggest that marketing knowledge make entrepreneurs wiser, but also less spontaneous. The relationship between level of marketing competency and nature of decisions is also statistically significant ($\chi^2=53.979$; $P=0.000$; $N=146$) and the correlation coefficient Cramer's V indicates a moderate positive association (Cramer's $V=0.608$).

The results presented so far indicate that the conditions to decide influence entrepreneurs' decision making process. We hypothesized that the level of uncertainty, determined by the availability of information and marketing competency, influence the decision making logics used to make

marketing decisions. The results of our study show that, in fact, for the sample studied, there is a relationship between both the conditions and the logic of decision making, as shown in Table 13.11.

In contexts of lower information available, decisions following effectual logic and principles are more frequent (65.7%) than decisions made within a causal logic (34.3%). In the same direction, when the level of marketing competency is lower there is a higher proportion of effectual decisions (82.6% versus 17.4% of causal decisions). On the contrary, a higher proportion of causal decisions are made in contexts of higher levels of information (56.6%) and, more expressively, when higher marketing competency exists (71.4%), being both relationships statistically significant (Table 13.11.).

Table 13.11. Decision logics by conditions to decide

Decision logics	Conditions to decide					
	Information availability			Marketing competency		
	Lower	Higher	Association	Lower	Higher	Association
Effectuation	46 (65.7%)	33 (43.4%)	$\chi^2=7.293$ $P=0.007$	57 (82.6%)	22 (28.6%)	$\chi^2=42.793$ $P=0.000$
Causation	24 (34.3%)	43 (56.6%)	Phi=0.224	12 (17.4%)	55 (71.4%)	Phi=0.541
Total N=146	70 (100%)	76 (100%)		69 (100%)	77 (100%)	

The results of the study confirm effectuation theoretical proposition and previous empirical evidence that decision logics are associated with uncertainty (e.g. Read et al, 2009a; Sarasvathy, 2003; 2001), therefore, also supporting the following hypotheses:

<i>H3. The level of uncertainty influences the decision making logics used to make marketing decisions.</i>	
<i>H3a. In contexts of lower information available, when uncertainty is higher, entrepreneurs tend to decide effectually</i>	Supported
<i>H3b. In contexts of higher information available, when uncertainty is lower, entrepreneurs tend to decide causally.</i>	Supported
<i>H3c. In contexts of lower marketing competency, when uncertainty is higher, entrepreneurs as a result of lower processing capacity, entrepreneurs tend to decide effectually.</i>	Supported
<i>H3d. In contexts of higher marketing competency, when uncertainty is lower, as a result of higher processing capacity, entrepreneurs tend to decide causally.</i>	Supported

We also hypothesized that the same uncertainty conditions influence how entrepreneurs act, that is, how they implement marketing. As there is a relationship between decision logics and marketing practices, it is expected that the conditions that influence logics also affect practices. When analysing the marketing practices in context, we found, as shown in Table 13.12., that entrepreneurial marketing practices are more prevalent in contexts of low information available (80.0% entrepreneurial marketing practices versus 20% of managerial marketing) than in contexts of higher information available (46.1% of entrepreneurial marketing versus 53.9% of managerial marketing).

Similarly, as Table 13.12 exhibits a higher proportion of entrepreneurial marketing practices was found when entrepreneurs have lower marketing competency (84.1% versus 15.9% of managerial practices) than when they are marketing proficient, which includes experiential learning and knowledgeable advice, besides training in the area, as previously explained (42.9% entrepreneurial marketing versus 57.1% managerial marketing). The Chi-square test indicates that there is a statistical relationship between the two in our sample.

Table 13.12. Relationship between marketing practices and conditions to decide

Marketing practices	Conditions to decide					
	Information availability			Marketing competency		
	Lower	Higher	Association	Lower	Higher	Association
Entrepreneurial	56 (80.0%)	35 (46.1%)	$\chi^2=17.884$ $P=0.000$	58 (84.1%)	33 (42.9%)	$\chi^2=23.309$ $P=0.000$
Managerial	14 (20.0%)	41 (53.9%)	Phi=0.350	11 (15.9%)	44 (57.1%)	Phi=0.424
Total	70 (100%)	76 (100%)		69 (100%)	77 (100%)	

The results allow confirming the following hypotheses:

<i>H4. The level of information and marketing competency available influence the way marketing is implemented.</i>	
<i>H4a. In contexts of lower information availability, when uncertainty is higher, entrepreneurs are more prone to implement entrepreneurial marketing practices</i>	Supported
<i>H4b. In contexts of higher information availability, when uncertainty is lower, entrepreneurs are more prone to implement managerial marketing practices</i>	Supported
<i>H4c. In contexts of lower marketing competency, when uncertainty is higher, as a result of lower processing capacity entrepreneurs are more prone to implement entrepreneurial marketing practices</i>	Supported

<i>H4d. In contexts of higher marketing competency, when uncertainty is lower, as a result of higher processing capacity, entrepreneurs are more prone to implement managerial marketing practices</i>	Supported
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In face of lower levels of information available, entrepreneurs lack the needed inputs to develop a number of managerial marketing tasks. In fact, the qualitative results of our study showed that if entrepreneurs are to implement such tasks, they can be confronted with some conundrums such as developing marketing research activities to understand and/or segmenting a market that they do not know yet whether exists; or determining a pricing strategy for a product, whose functionalities and requisites are still to be defined; or choosing distribution channels for a target that is not completely known at the outset.

In some cases such information is not possible to obtain at all, due to the novelty of the market and product, whereas in some others it can be reached if the necessary competences exist. As it was demonstrated during the qualitative presentation of the results, marketing competency allow entrepreneurs to detect or search and process information more effectively contributing for reducing uncertainty. As Table 13.13. shows, when this knowledge is present, more managerial marketing practices are implemented, since tested marketing decision models, that are known to be effective, can be transferred to the new situation, even with adaptations. When entrepreneurs have low marketing competency, they are more prone to implement entrepreneurial activities, which allow experimenting more and learning steadily in close proximity to the market. Because of the importance of marketing knowledge confirmed in our study, we suggested that even when information is available, marketing knowledge is needed to work upon data and reduce uncertainty. So, we hypothesized that marketing competency can influence the ability to gather and process information, which would affect relationship between information availability and the type of marketing practices implemented.

The results show that marketing competency plays a role, in fact. As presented before (Table 13.12) the proportion of managerial marketing practices is of 53.9% (versus 46.1% of entrepreneurial marketing practices) when only the higher level of information is considered. However, when we observe the combination of both conditions, we can conclude that when there is higher level of information but lower marketing competency only 21.6% of the marketing activities are managerial (Table 13.3.). When we consider only activities developed in context of both higher information availability and higher marketing competency, the proportion of managerial marketing practices rises to 84.6%. We further concluded that the relationship between information availability and marketing

practices is only significant for the group of marketing practices implemented under higher levels of marketing competency ($\chi^2=24.355$; $P=0.000$; $N=77$) and that when marketing competency exists the association of information availability and practices is stronger ($\Phi=0.563$, $N=77$; instead of $\Phi=0.350$, for the total sample, $N=146$).

Table 13.13. Marketing practices by information available, controlled for marketing competency

Marketing competency	Marketing practices	Information availability		Total	Association
		Lower	Higher		
Lower	Entrepreneurial	29 (90.6%)	29 (78.4%)	58 (84.1%)	$\chi^2=1.920$ $P=0.166$
	Managerial	3 (9.4%)	8 (21.6%)	11 (15.9%)	
	Total	32 (100%)	37 (100%)	69 100%	
Higher	Entrepreneurial	27 (71.1%)	6 (15.4%)	33 (42.9%)	$\chi^2=24.355$ $P=0.000$ Phi=0.563
	Managerial	11 (28.9%)	33 (84.6%)	44 (57.1%)	
	Total	38 (100%)	39 (100%)	77 100%	

Considering the above arguments, results allow confirming the following hypothesis:

<i>H5. The level of marketing competency influences the ability to obtain and process information, affecting the relationship between level of information and marketing practices.</i>	Supported
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We also observed that the conditions to make decisions, both information availability and marketing competency, influence the relationship between marketing practices and their underlying decision logics. Table 13.14. shows that in the group of decisions made with higher information available, the proportion of managerial marketing practices made with a causal logic rises from 64.2%, when the total sample is considered (as previously presented in Table 13.6.) to 81.4%. The relationship between marketing practices and decision logics remain significant in the two groups, but

the strength of the association is higher when only the context of higher information is considered (Phi=0.629; $N=76$; instead of Phi=0.505 for the total sample, $N=146$).

Table 13.14. Marketing practices by decision logics, controlled for information availability

Information availability	Marketing practices	Decision logics		Total	Association
		Effectuation	Causation		
Lower	Entrepreneurial	40 (87.0%)	16 (66.7%)	56 (80.0%)	$\chi^2=4.058$ $P=0.044$ Phi=0.241
	Managerial	6 (13.0%)	8 (33.3%)	14 (20.0%)	
	Total	46 (100%)	24 (100%)	70 100%	
Higher	Entrepreneurial	27 (81.8%)	8 (18.6%)	35 (46.1%)	$\chi^2=30.031$ $P=0.000$ Phi=0.629
	Managerial	6 (18.2%)	35 (81.4%)	41 (53.9%)	
	Total	33 (100%)	43 (100%)	76 100%	

When we consider the marketing competency, although the influence on the relationship between marketing practices and logics is not as pronounced as it is for information availability, we observe (Table 13.15.) that when marketing competency is lower, the proportion of entrepreneurial marketing practices made within an effectual logic rises to 93%, against 84.8% when the total sample is considered (Table 13.6.). Additionally the association is slightly stronger (Phi=0.531; $N=69$; against Phi=0.504; $N=146$).

Table 13.15. Marketing practices by decision logics, controlled for marketing competency

Marketing competency	Marketing practices	Decision logics		Total	Association
		Effectuation	Causation		
Lower	Entrepreneurial	53 (93.0%)	5 (41.4%)	58 (84.1%)	$\chi^2=19.480$ $P=0.000$ Phi=0.531
	Managerial	4 (7.0%)	7 (58.3%)	11 (15.9%)	
	Total	57 (100%)	12 (100%)	69 100%	
Higher	Entrepreneurial	14 (63.6%)	19 (34.5%)	33 (42.9%)	$\chi^2=5.430$ $P=0.000$ Phi=0.266
	Managerial	8 (36.4%)	36 (65.5%)	44 (57.1%)	
	Total	22 (100%)	55 (100%)	77 100%	

Based on the previous analysis, results allow confirming the following hypotheses:

<i>H6. Conditions to decide influence the relationship between logics of decision making and marketing practices.</i>	
<i>H6a. Information availability influences the relationship between logics of decision making and marketing practices.</i>	Supported
<i>H6b. Marketing competency influences the relationship between logics of decision making and marketing practices.</i>	Supported

Results presented so far offer evidence to support the influence of decision making conditions both on the way participant entrepreneurs make decisions and in the type of marketing they implement. The next section will explore the relationships between marketing practices and their results on business development.

13.3. Marketing effects on business development

As previously exposed (*cf.* Section 12), from the decisions analysed four main types of effects were identified: a) acquiring potential, which regards to creating opportunities and acquiring capacities and other resources to explore in the future; b) expansion and growth, consisting in gaining market,

increasing revenues and being more efficient; c) marketing indicators, which relates to results such as obtaining credibility and brand awareness and c) lower than expected or negative results, which means that some decision may have not had the expected output or it may have been harmful for the business development. Table 13.16. summarizes the frequencies of the different effects. As more than one effect could be identified for each decision, the total number of effects found was 230. For the quantitative analyses only the most relevant effect for each marketing decision was considered, following the criteria explained in the subsection 12.1.

As presented and discussed in Section 12, there is an overwhelming prevalence of positive impacts in detriment of negative ones. We can observe that the acquisition of potential for future is most often indicated as the most relevant (47.3%). On the other hand, only 9.6% of the decisions were referred by entrepreneurs as having had disappointing results or negative impacts (Table 13.16.).

Table 13.16. Marketing decisions' effects on business development

Effects	All	%	Most relevant	%
Acquiring potential	92	40.0	69	47.3
Expansion and growth	57	24.8	37	25.3
Marketing indicators	66	28.7	26	17.8
Lower impact than expected or negative	15	6.5	14	9.6
	230	100	146	100

The acquisition of potential for future exploration effect was particularly emphasized by younger companies, aging up to four years (56.1%) compared to firms with more than four years (35.9%) (Table 13.17.). The results suggest that in the early life of the company indicators of business development resulting from marketing decisions considered relevant by entrepreneurs are not as associated to measures related to growth, as they are in the following years. In fact, impacts on expansion and growth are more frequently mentioned as the main result of marketing decisions when they are made by firms with more than four years (37.5%) than by firms with up to four years (15.9%). The relationship between the type of effects and business newness is statistically significant ($\chi^2=17.087$; $P=0.001$; $N=146$).

Table 13.17. Main effects of marketing decisions by firm's newness

Main effects	Firms' newness		Total	Association 2x2
	Younger (Up to 4 years)	Older (More than 4 years)		
Acquiring potential (Yes=69)	46 (56.1%)	23 (35.9%)	69 (47.3%)	$\chi^2=5.861$ $P=0.015$
Expansion and growth (Yes=37)	13 (15.9%)	24 (37.5%)	37 (25.3%)	$\chi^2=8.902$ $P=0.003$
Marketing indicators (Yes=26)	19 (23.2%)	7 (10.9%)	26 (17.8%)	$\chi^2=3.675$ $P=0.055$
Lower than expected or negative (Yes=14)	4 (4.9%)	10 (15.6%)	14 (9.6%)	$\chi^2=4.789$ $P=0.029$
Total	82 (100%)	64 (100%)	146 (100%)	

Confirming the qualitative results, the quantitative analysis shows that different levels of uncertainty are associated to different effects of the marketing decisions (Table 13.18.), although information plays a different role from competency. Regarding the information availability, the independence test indicates an overall association between the information availability and effects ($\chi^2=26.029$; $P=0.000$; $N=146$). In our study, we found that when the information level is higher, the most frequently referred effect of marketing decisions on business development was expansion and growth (42.1%), while in context of low information available the most frequently identified effect was acquiring potential (62.9%). When the relationship between level of information and each effect is tested in isolation (meaning that the effect was indicated as the main result of a decision) we observe that only these relationships, that is, information availability and acquiring potential ($\chi^2=13.124$; $P=0.000$; Yes=69) and information availability and expansion and growth ($\chi^2=23.542$; $P=0.000$; Yes=37) are statistically significant.

Concerning marketing competency, the Chi-square statistic did not allow to reject the independence from the variable main effects ($\chi^2=5.550$; $P=0.136$; $N=146$). However, when effects are tested individually, we can see (Table 13.18) that the relationship between expansion and growth (Yes=37) and lower than expected or negative results (Yes=14) and marketing competency is statistically significant at the 90% confidence level. Results show that higher marketing competency is

associated with a positive effect, while lower marketing competency is associated with negative effects, although the strength of the association is very low.

Table 13.18. Main effects by conditions to decide

Main effects	Conditions to decide					
	Information availability			Marketing competency		
	Lower	Higher	Association (2x2)	Lower	Higher	Association (2x2)
Acquiring potential (Yes=69)	44 (62.9%)	25 (32.9%)	$\chi^2=13.124$ $P=0.000^{**}$ Phi=-.300	33 (47.8%)	36 (52.2%)	$\chi^2=0.017$ $P=0.897$
Expansion and growth (Yes=37)	5 (7.1%)	32 (42.1%)	$\chi^2=23.542$ $P=0.000^{**}$ Phi=-.402	13 (18.8%)	24 (31.2%)	$\chi^2=2.923$ $P=0.087^*$ Phi=0.142
Marketing indicators (Yes=26)	12 (17.1%)	14 (18.4%)	$\chi^2=0.041$ $P=0.840$	13 (18.8%)	13 (16.9%)	$\chi^2=0.095$ $P=0.758$
Lower than expected or negative (Yes=14)	9 (12.9%)	5 (6.6%)	$\chi^2=0.041$ $P=0.840$	10 (14.5%)	4 (5.2%)	$\chi^2=3.629$ $P=0.057^*$ Phi=-.158
Total N=146	76 (100%)	70 (100%)	$\chi^2=26.029$ $P=0.000^{**}$ Cramer's V=0.422	69 (100%)	77 (100%)	$\chi^2=5.520$ $P=0.136$

*p<0.10; **p<0.05

The results of our study also suggest that both decision making logics used to make decisions and the type of marketing practices applied lead to different outputs. Table 13.19. shows that when decisions are made within an effectual logic and entrepreneurial marketing practices are implemented the frequency of effects relating with acquiring potential for future is higher. Conversely, when causation and managerial practices are used there is a higher prevalence of expansion and growth results, which confirms the suggestions offered by the qualitative results. As we detailed in Section 10, when describing the entrepreneurial marketing decision process, effectuation, and consequently the associated entrepreneurial marketing practices, have a number of benefits, such as the ability to take advantage of emerging opportunities, to learn by experience and to be able to share risks and acquire capabilities through partnerships, which creates potential for future, but not as often yield immediate returns. On the other hand, causation that underlies managerial marketing practices, while riskier

under uncertainty, allows a faster take off and efficiency gains. Results confirm, therefore, that decision logics have different advantages depending on the circumstances (Sarasvathy, 2001).

We also observed that more effects relating with marketing indicators, such as awareness and credibility result from effectual decisions and entrepreneurial marketing practices. This result suggests that effectuation and entrepreneurial marketing may be more effective when it comes to gaining market trust and being able to emerge from anonymity. The relationships between marketing indicators and both logics and practices are only marginally significant at the 0.10 level, however.

Table 13.19. Main effects by decision making logics and marketing practices

Main effects	Decision logics			Marketing practices		
	Effectuation	Causation	Association (2x2)	Entrepreneurial	Managerial	Association (2x2)
Acquiring potential (Yes=69)	40 (50.6%)	29 (43.3%)	$\chi^2=0.786$ $P=0.375$	49 (53.8%)	20 (36.4%)	$\chi^2=4.204$ $P=0.040^{**}$ Phi=.170
Expansion and growth (Yes=37)	13 (16.5%)	24 (35.8%)	$\chi^2=7.186$ $P=0.007^{**}$ Phi=0.222	15 (16.5%)	22 (40.0%)	$\chi^2=10.020$ $P=0.002^{**}$ Phi=.262
Marketing indicators (Yes=26)	18 (22.8%)	8 (11.9%)	$\chi^2=2.913$ $P=0.088^*$ Phi=.141	20 (22.0%)	6 (10.9%)	$\chi^2=2.870$ $P=0.090^*$ Phi=.140
Lower than expected or negative (Yes=14)	8 (10.1%)	6 (9.0%)	$\chi^2=0.057$ $P=0.811$	7 (7.7%)	7 (12.7%)	$\chi^2=1.002$ $P=0.317$
Total N=146	79 (100%)	67 (100%)	$\chi^2=8.225$ $P=0.042^{**}$ Cramer's V=0.237	91 (100%)	55 (100%)	$\chi^2=12.963$ $P=0.005^{**}$ Cramer's V=0.298

*p<0.10; **p<0.05

Additionally the less positive results are referred irrespectively of the logics used to make a particular decision that produced those results and the marketing practices applied. However, when we control for the level of information available this result is quite different. Despite the low number of observations, we can notice (Table 13.20.) that all the decisions with disappointing results that used a causal logic were made in the context of lower information available. Similarly, a higher proportion of managerial marketing practices with lower results than expected were applied when information was scarce. The results are both significant.

As for marketing competency, although the result is not statistically relevant, it is interesting to see how the negative results distribute by each logic and marketing practices when the level of marketing competency is considered. All effectual decisions that resulted worse than expected were made with low marketing competency. The same situation occurs when considering marketing practices. All entrepreneurial marketing practices that resulted not positive were implemented in the context of lower marketing competency.

Table 13.20. Main effects by decision making logics and marketing practices controlled for information availability

Effect	Levels of uncertainty	Decision logics			Marketing practices		
		Effectuation	Causation	Fisher's exact test	Entrepreneurial	Managerial	Fisher's exact test
Lower than expected or negative (Yes=14)	Lower info available <i>N</i> =9	3 (37.5%)	6 (100%)	<i>P</i> =0.037	4 (57.1%)	5 (71.4%)	<i>P</i> =0.013
	Higher info available <i>N</i> =5	5 (62.5%)	0 (0.0%)	<i>P</i> =0.013	3 (42.9%)	2 (28.6%)	<i>P</i> =0.424
	Total <i>N</i> =14	8 (100%)	6 (100%)	<i>P</i> =0.519	7 (100%)	7 (100%)	<i>P</i> =0.236
	Lower marketing competency <i>N</i> =10	8 (100%)	2 (33.3%)	<i>P</i> =0.556	7 (100%)	3 (42.9%)	<i>P</i> =0.192
	Higher marketing competency <i>N</i> =4	0 (0.0%)	4 (66.6%)	<i>P</i> =0.252	0 (0.0%)	4 (57.1%)	<i>P</i> =0.100
	Total <i>N</i> =14	8 (100%)	6 (100%)	<i>P</i> =0.519	7 (100%)	7 (100%)	<i>P</i> =0.236

Although we found differences between logics and practices and their effects, they are not all statistically significant, not allowing to fully supporting the following hypotheses:

<i>H7. The level of uncertainty is associated with different effects on business development</i>	Partially supported
<i>H8. Effectuation and causation logics have different effects on business development</i>	Partially supported
<i>H9. Entrepreneurial and managerial marketing practices result in different effects on business development</i>	Partially supported

Table 13.21. summarizes the profile characteristics of the different decision making logic and marketing practices combinations. We can observe that 110 marketing decisions (75.4%) can be

classified as either simultaneously effectual and entrepreneurial (EFF+EM) or simultaneously causal and managerial (CAU+MAN). As previously presented, in fact we found a relationship between the decision making logic and the marketing practices, confirming our suggested research proposition.

Regarding the EFF+EM group of decisions, relatively to the total sample, there are less decision makers with background education in management areas and with marketing competency, in general, and more decisions made with low levels of information is higher. These two conditions represent a higher level of uncertainty for these decisions. In terms of effects, confirming the results previously presented, acquiring potential is predominant, and there are less decisions resulting in expansion and growth. We can also observe when effectuation and entrepreneurial marketing are combined, there are lower than expected results or negative. This result can have different explanations. The most immediate one might has to do with the fact that as effectuators use regularly the affordable loss principle, the impact of a bad decision can be attenuated, and therefore, undervalued by interviewees. Another possible explanation is that since effectuators do not establish goals, as their rational is to make the future happen with the given means, they do not reach to the point of assessing the marketing effectiveness. In the case of causal decision makers, their starting point is goals and, therefore, the actions are subsequently measured against such goals. Entrepreneurship lies on unstable ground, and for that reason there is a high chance of goals not being met. In the case of effectuation, there is a vague idea of what would be possible to achieve with a given set of means, but ultimately, the final result is unforeseen and, therefore, the fact of reaching something can automatically be classified as positive.

As for the CAU+MAN group, we observe a different decisions' pattern. More decision makers have background in management and marketing competency, in general, and the incidence of decisions made with higher levels of information is much higher than in the previous group and in the total sample. We can see that this is the group of decisions with higher percentage of positive effects on expansion and growth.

It is also interesting to understand the profile of the remainder 36 decisions (24.6%). We can observe (Table 13.21.) that most of these decisions follow a causal rationality while implementing entrepreneurial marketing (CAU+ENT). Within this group there is a higher prevalence of decisions made by entrepreneurs with background education in management than in total sample. Additionally, there is a higher percentage of marketing competent decision makers, which may explain the preference for a causal rationality. However, the majority of decisions are made with low levels of

information available, which might have influenced the preference for entrepreneurial marketing practices. Within the other group that do not follow the expected pattern of consistency between logics and marketing practices, that is, EFF+MAN, we can see (Table 13.21.) that the incidence of decisions made by entrepreneurs without background in marketing or management is higher than in total sample, which may explain the preference by effectuation even though managerial marketing practices are then applied. This is the group where the incidence of lower than expected or negative results is higher, however, suggesting that may be the less effective way of making and applying marketing decisions.

Table 13.21. Summary of different decision making and marketing practices profiles

		Total sample (N=146)	EFF+EM (45.9%) (N=67)	CAU+MAN (29.5%) (N=43)	CAU+EM (16.4%) (N=24)	EFF+MAN (8.2%) (N=12)
			110 (75.4%)		36 (24,6%)	
Managerial education	Yes	19.9%	7.5%	27.9%	45.8%	8.3%
	No	80.1%	92.5%	72.1%	54.2%	91.7%
Total		100%	100%	100%	100%	100%
Newness	Younger (Up to 4 years)	56.2%	59.7%	46.5%	66.7%	50.0%
	Older (More than 4 years)	43.8%	49.3%	53.5%	33.3%	50.0%
Total		100%	100%	100%	100%	100%
Information availability	Lower	47.9%	59.7%	18.6%	66.7%	50.0%
	Higher	52.1%	40.3%	81.4%	33.3%	50.0%
Total		100%	100%	100%	100%	100%
Marketing competency	Lower	47.3%	79.1%	16.3%	20.8%	33.3%
	Higher	52.7%	20.9%	87.7%	79.2%	66.7%
Total		100%	100%	100%	100%	100%
Decision effects	Acquiring potential	47.3%	49.3%	30.2%	66.7%	58.3%
	Expansion and growth	25.3%	16.4%	46.5%	16.7%	16.7%
	Marketing indicators	17.8%	26.9%	14.0%	8.3%	0.0%
	Lower than expected or negative	9.6%	7.5%	9.3%	8.3%	25.0%
Total		100%	100%	100%	100%	100%

EFF – effectual decision making logic | CAU – causal decision making logic | EM – Entrepreneurial marketing | MAN – Managerial marketing

The results allow us to perceive different patterns of decision making and marketing practices in entrepreneurial firms, associated to different sample characteristics, conditions to decide and effects, which adds evidence to our proposition that entrepreneurial marketing is shaped by contextual conditions.

13.4. Entrepreneurial marketing decision making and effects in context

Results presented in the previous sections indicate that conditions under which marketing decisions are made and the decision making logics influence resulting marketing practices. Also, it is suggested that different contexts lead to different marketing decision outputs, sustaining the idea that more than one decision making logic and different marketing practices may be applied to serve different needs of the developing company. Table 13.22. summarizes the previously presented results, showing. Using the level of information and marketing competency as basic conditions to set the decision making context, a matrix of four quadrants presents the decisions made under each set of circumstances; the logic and marketing practices associated to the decisions; and their impacts.

We found that 66 out of 67 EFF+EM decisions (98.5%) take place in the context of information scarcity and/or when low marketing competency is available. On the other hand, the frequency of causal/managerial marketing decisions is higher (65.2%) only when higher levels of information and marketing competency are available.

It is also worthy to note that CAU+MAN decisions in the context of higher information availability and higher marketing competency contribute with more effects on growth. On the opposite direction, EFF+EM marketing decisions in the context of low information and marketing expertise available produce more impacts on potential creation.

The matrix also shows that none of the lower than expected or negative results takes place when both information and marketing competency are simultaneously available for decision making. The majority (71.4%) of these disappointing results happens when the marketing competency is low, but even when decision makers are marketing proficient, if the information is limited and a CAU+MAN style is used, results can be less than expected.

Table 13.22. Entrepreneurial marketing decision making and effects in context

	Lower available information						Higher available information						Total decisions
	Logics/ mkt practices	Decisions	Main impacts				Logics/ mkt	Decisions	Main impacts				
			Potential (a) n=69	Growth (b) n=37	Marketing (c) n=26	Lower than expected (d) n=14			Potential (a) n=69	Growth (b) n=37	Marketing (c) n=26	Lower than expected (d) n=14	
Higher marketing competency	EFF+ EM	13 (34.2%)	5	1	7		EFF+ EM	1 (2.6%)			1		14
	EFF + MAN	5 (13.2%)	3	2			EFF + MAN	3 (7.7%)	3				8
	CAU + EM	14 (36.8%)	14				CAU + EM	5 (12.8%)	2	2	1		19
	CAU + MAN	6 (15.8%)	2			4	CAU + MAN	30 (76.9%)	7	19	4		36
	Total	38 (100%)	24 (34.8%) of total (a)	3 (8.1%) of total (b)	7 (26.9%) of total (c)	4 (28.6%) of total (e)	Total	39 (100%)	12 (17.4%) of total (a)	21 (56.8%) of total (b)	6 (23.1%) of total (c)	0 (0.0%) of total (d)	77
Lower marketing competency	EFF+ EM	27 (84.4%)	18	2	5	2	EFF+ EM	26 (70.3%)	10	8	5	3	53
	EFF + MAN	1 (3.1%)				1	EFF + MAN	3 (8.1%)	1			2	4
	CAU + EM	2 (6.2%)				2	CAU + EM	3 (8.1%)		2	1		5
	CAU + MAN	2 (6.2%)	2				CAU + MAN	5 (13.5%)	2	1	2		7
	Total decisions	32 (100%)	20 (29.0%) of total (a)	2 (5.4%) of total (b)	5 (19.2%) of total (c)	5 (35.7%) of total (d)	Total	37 (100%)	15 (18.8%) of total (a)	11 (29.7%) of total (b)	8 (30.8%) of total (c)	5 (35.7%) of total (d)	69
Total	70	44 (63.8%)	5 (13.5%)	12 (46.2%)	9 (64.3%)	Total	76	27 (39.1%)	32 (86.5%)	14 (53.8%)	5 (35.7%)	n=146	

EFF – effectual decision making logic | CAU – causal decision making logic | EM – Entrepreneurial marketing | MAN – Managerial marketing

The multinomial logistic regression (*logit*) was used to estimate the probability of each marketing decision effect (1- acquiring potential; 2- expansion and growth; 3- marketing indicators; 4- lower than expected or negative) as a function of several independent variables, namely: marketing practices (1- entrepreneurial; 2- managerial); decision logics (1- effectual; 2- causal); information level (1- lower; 2- higher) and marketing competency (1- lower; 2- higher). Multinomial *logit* models are adequate to explain a dependent variable that takes more than two unordered categorical values (Powers & Xie, 2008), which is the case. In the *logit* model, the different categories of the dependent variable are compared to a reference category and different odds ratios are obtained (Twisk, 2006). In our model we used 'lower than expected or negative' effects as reference category, in order to compare the other more effective decision outcomes (acquiring potential, expansion and growth and marketing indicators) with this less effective outcome regarding the influence of the above mentioned independent variables. The odds ratio shows that decision makers with different characteristics (level of information, marketing competency, type of marketing implemented, decision logics used) are more or less likely to obtain a particular positive effect as a result of their decisions compared to the reference effect 'lower than expected or negative'.

The adjusted model is statistically significant ($G^2(12)=47.455$; $P=0.000$), which allow to reject the null hypothesis that there is no difference between the model without independent variables and the model with independent variables, that is, there is a statistically significant relationship between the dependent variable and at least one independent variable. The ratio of cases to independent variables is higher than 10 to1, following the standard recommendations ($146/4=36.5>10$). The estimates of the coefficients of the model are presented in Table 13.23. The classification accuracy was used to assess the multinomial logistic regression model usefulness (Bayaga, 2010). The model was considered useful since the classification accuracy rate was 52.1%, which was greater than the proportional by chance accuracy criteria of 41.0%².

Based on Table 13.23. we can conclude that none of the independent variables in the analysis has a standard error larger than 2.0, which suggests no problems of multicollinearity. Considering the significance level of 0.05, which is used for this model, we can observe that relative to the reference category 'lower than expected or negative', the category 1 'acquiring potential' is significantly affected by the level of marketing competency ($B_{\text{MarketingCompetency}}=-1.816$; $P=0.020$) and marketing practices

² The proportional by chance accuracy rate was computed by calculating the proportion of cases for each group and then squaring and summing the proportion of cases in each group and multiplying by 1.25. That is, 25% improvement over the rate of accuracy achievable by chance alone, which has been set as an acceptable standard, allows considering the model useful (Petrucci, 2009).

($B_{\text{MarketingPractices}} = -1.773$; $P = 0.028$). The category 2 'expansion and growth' relative to 'lower than expected or negative' is significantly affected by the level of information ($B_{\text{InfoAvailable}} = -2.984$; $P = 0.000$) and the level of marketing competency ($B_{\text{MarketingCompetency}} = -2.286$; $P = 0.010$). Finally, the category 3 'marketing indicators' is significantly (Sig.) affected by level of information ($B_{\text{InfoAvailable}} = -1.773$; $P = 0.027$); the level of marketing competency ($B_{\text{MarketingCompetency}} = -2.538$; $P = 0.006$) and marketing practices ($B_{\text{MarketingPractices}} = 2.403$; $P = 0.012$).

Table 13.23. Coefficients of the multinomial model - parameter estimates

Effects ^a		B	Std. Error	Wald	df	P. (sig.)	Exp(B) Odds Ratio (OR)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
1- acquiring potential	Intercept	1.929	.684	7.964	1	.005			
	[lowerInfoAvailable=1]	-.652	.693	.884	1	.347	.521	.134	2.028
	[higherInfoAvailable=2]	0 ^b			0				
	[lowerMarketingCompetency=1]	-1.816	.780	5.418	1	.020	.163	.035	.751
	[higherMarketingCompetency =2]	0 ^b			0				
	[effectualLogic=1]	.146	.782	.035	1	.852	1.157	.250	5.351
	[causalLogic=2]	0 ^b			0				
	[entrepreneurialMarketingPractices=1]	1.773	.805	4.856	1	.028	5.891	1.217	28.519
[managerialMarketingPractices=2]	0 ^b			0					
2- expansion and growth	Intercept	2.556	.686	13.877	1	.000			
	[lowerInfoAvailable=1]	-2.984	.845	12.469	1	.000	.051	.010	.265
	[higherInfoAvailable=2]	0 ^b			0				
	[lowerMarketingCompetency=1]	-2.286	.888	6.631	1	.010	.102	.018	.579
	[higherMarketingCompetency =2]	0 ^b			0				
	[effectualLogic=1]	.020	.888	.001	1	.982	1.020	.179	5.813
	[causalLogic=2]	0 ^b			0				
	[entrepreneurialMarketingPractices=1]	1.493	.899	2.760	1	.097	4.452	.765	25.916
[managerialMarketingPractices=2]	0 ^b			0					
3- marketing indicators	Intercept	.938	.780	1.443	1	.230			
	[lowerInfoAvailable=1]	-1.773	.803	4.872	1	.027	.170	.035	.820
	[higherInfoAvailable=2]	0 ^b			0				
	[lowerMarketingCompetency=1]	-2.538	.921	7.588	1	.006	.079	.013	.481
	[higherMarketingCompetency =2]	0 ^b			0				
	[effectualLogic=1]	.959	.920	1.087	1	.297	2.608	.430	15.814
	[causalLogic=2]	0 ^b			0				
	[entrepreneurialMarketingPractices=1]	2.403	.955	6.331	1	.012	11.056	1.701	71.868
[managerialMarketingPractices=2]	0 ^b			0					

a. The reference category is: lower than expected or negative

b. This parameter is set to zero because it is redundant.

Concerning the marketing decisions that resulted, as the main effect, in **'acquiring potential'**, based on the model, results show that entrepreneurs with **lower marketing competency** are less likely to obtain this effect relative to obtain a 'lower than expected or negative' effect. The odds of entrepreneurs with lower marketing competency 'acquiring potential' over a 'lower than expected or negative' effect is 83.7% lower than those of with higher marketing competency (OR=.163). The other cognitive condition, that is, the level of information, does not have a significant influence on this effect.

The model also shows that the type of marketing implemented affect the result 'acquiring potential'. In fact, the odds of entrepreneurs that implemented **entrepreneurial marketing** practices 'acquiring potential' rather than 'lower than expected or negative' effects as a result of their decisions are nearly 6 times higher (OR=5.891). According to this model, the 'acquiring potential' effect is not explained by the decision making logics used.

In respect to the effect **'expansion and growth'**, we can observe that it is affected by the level of information available and marketing competency, but not by the type of marketing and decision logics used. Decision makers with **lower level of information** have 94.9% less chances of obtaining an 'expansion and growth' effect over a 'lower than expected or negative' effect than decision makers with higher levels of information (OR=.051).

Entrepreneurs with **lower marketing competency** are also less likely to obtain 'expansion and growth' relative to 'lower than expected or negative' as a result of their decisions. The odds ratio is .102, which means that the chances of their decisions contributing to 'expansion and growth' rather than 'lower than expected or negative' are 89.8% lower.

Finally, regarding the **'marketing indicators'** effects, the model shows that these results are affected by level of information, the level o marketing competency and the marketing practices, but not the decision logics, similarly to the previous effects. Marketing decisions made under **lower levels of information** are 83% less likely than decisions made with higher level of information to produce 'marketing indicators' effects instead of 'lower than expected or negative' effects (OR=.170).

Likewise, the odds of **lower marketing competent** entrepreneurs' decisions resulting in effects classified as 'marketing indicators' rather than in 'lower than expected or negative' effects is 92.1% lower than decisions of higher marketing competent entrepreneurs (OR=.079).

On the opposite direction, the odds of entrepreneurs that implement **entrepreneurial marketing practices** obtaining 'marketing indicators' effects rather than 'lower than expected or negative' as a result of their decisions are about 11 times higher (OR=11.056) than those that implement managerial marketing practices.

These results allow us to confirm previously presented findings showing that, particularly, the conditions to decide play an important role in distinguishing different marketing decision making effects in our sample. Both higher levels of information and higher marketing competency differentiate between positive and less positive decision results. We can also conclude that entrepreneurial marketing practices explain the differences between effective and less effective decisions, except for the case of the 'expansion and growth' effects, which also reinforce previous results of the study. What is interesting to notice is that concerning the decision making logics, this variable is not a useful predictor for distinguishing between the group of decisions resulting in 'lower than expected or negative' from each of the other three possible effects. Thus, results allow to partially supporting the following hypothesis:

<i>H10. Different effects on business development are explained by the marketing practices, logics and decision making conditions.</i>	Partially supported
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13.5. Section summary

Results presented in this section aimed at exploring the findings of the qualitative study from a complementary perspective, by ascribing more analytical accuracy to the relationships suggested by the content analysis. The quantitative data showed that there is a higher proportion of entrepreneurial marketing, comparing to managerial marketing practices, and also a higher proportion of effectual decisions relatively to causal decisions, as it would be expected. However, both different marketing practices and decision logics were found, sometimes associated to decisions made by the same entrepreneur, which lent strength to the idea that different circumstances call for different marketing decision approaches. Quantitative data also provided statistical evidence of the association between entrepreneurial marketing practices and effectuation logic and between managerial marketing practices and causal logic, which was one of the assumptions of the study.

Results presented in this section further showed that there is an overall independence between demographic characteristics of both entrepreneurs and their companies and the marketing decision process, except for the relationship between the age of the firm and marketing practices, and background education and decision logics. Younger companies tend to implement entrepreneurial marketing more often and entrepreneurs with education in management show a preference for causal rationality when making marketing decisions.

In terms of the decision context, that is, the uncertainty associated with the marketing decisions, measured by the level of information available and the level of marketing competency to process this information, we found quantitative support for the proposition that higher uncertainty contexts are associated with effectuation and entrepreneurial marketing practices. We further confirmed that the level of marketing competency influences the relationship between the level of information available and both the logics of decision making and the type of marketing applied by entrepreneurs.

Finally, we found some support for the idea that different marketing practices produce different effects on business development. In fact, the relationship between entrepreneurial marketing and potential acquisition is statistically significant, as well as the relationship between managerial marketing and expansion and growth. The multinomial logistic regression model applied showed, however, that the level of information available and the level of marketing competency have a better explanatory power to distinguish the different effects, i.e., acquiring potential, expansion and growth, marketing indicators and lower than expected or negative. These results and the qualitative findings are further discussed in the next part of the thesis.



CONCLUSIONS, CONTRIBUTIONS AND LIMITATIONS

This final part of this work aims at further highlighting and discussing the most salient findings of the research by comparing and integrating them with the existing literature, in order to obtain a broader and clearer overview of our contribution. The entrepreneurial marketing framework, as it emerged from the study, is confronted not only with previous findings at the marketing/entrepreneurship interface, but also with other research. Besides effectuation, other concepts and theories are linked to our results, such as the concept of bricolage (Baker & Nelson,

2005); the creation theory (Alvarez & Barney, 2005); strategic legitimation (Zimmerman & Zeitz, 2002) and the dynamic states approach (Levie & Lichenstein, 2010).

As summarized in Figure V.1., in this part, we return to the entrepreneurial marketing process that emerged from the study, showing the consistencies with previous literature on entrepreneurial marketing, effectuation, and other theories, while also highlighting the new findings and contributions. Three main concerns focused by participant entrepreneurs regarding the marketing of new firms are also further discussed, namely: Product, People and Legitimation. The importance of changes in the level of information available for the entrepreneurial marketing decision making process, which we call information cycles, and also the importance of marketing knowledge for entrepreneurial firms are further discussed. Moreover, based on our findings, we suggest an entrepreneurial marketing conceptualization and an entrepreneurial marketing decision typology, by combining the level of uncertainty with different logics and marketing practices. This part also details the contributions of the study, for theory, for practice, for marketing teaching and for policy making. As any other study, ours is not without limitations. Therefore, the main limitations are highlighted and avenues for future research are presented.

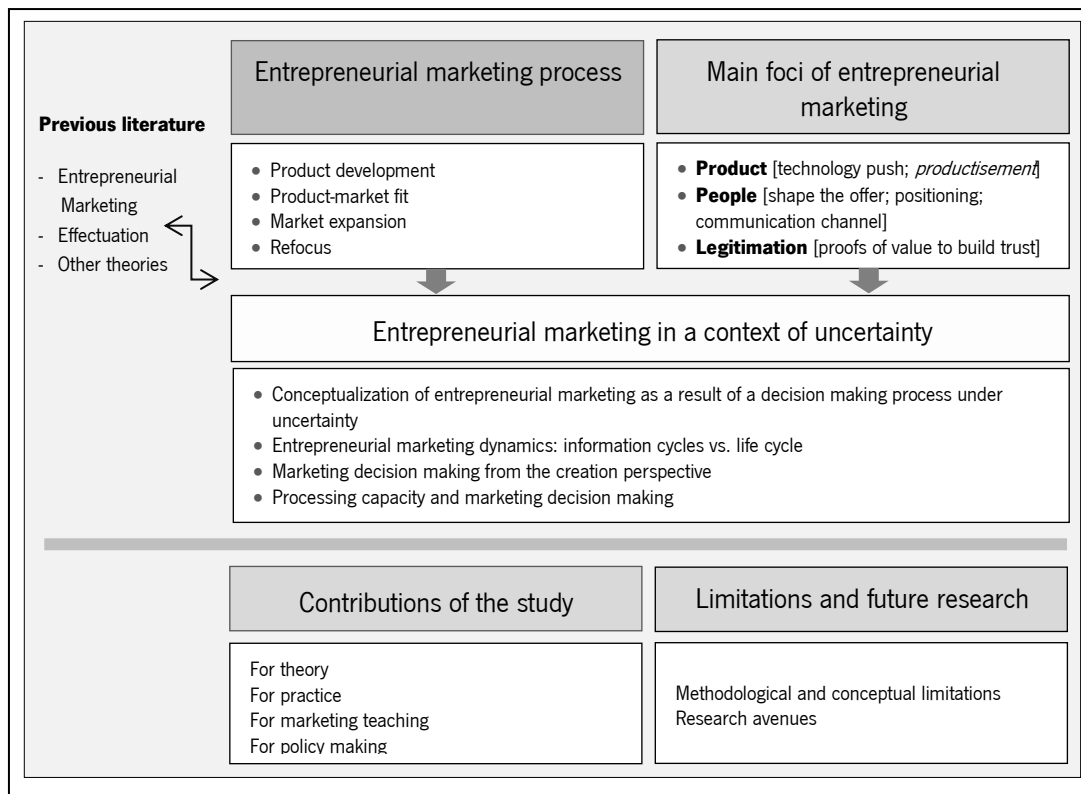


Figure V.1. Conclusions, contributions and limitations' presentation structure

14. Marketing in entrepreneurial firms

One of our first conclusions is that most critical incidents reported by entrepreneurs participating in our study are marketing related. One possible explanation regards the pervasive nature of marketing, taking into account that marketing, seen as an organizational or business philosophy or as a part-time activity of everyone inside the organization, is a comprehensive concept with implications in all functional areas (Gummesson, 1994; Kohli & Jaworski, 1990). Another explanation is that marketing has, in fact, a very important role for the success of new ventures, confirming previous research (e.g. Sullivan & Marvel, 2011; Song, Di Benedetto & Song, 2010; Zimmerer & Baglione, 2009; Henard & Szymanski, 2001; Cooper, 1994; Hills, 1985).

We also confirmed, through both qualitative and quantitative analysis, our research proposition and hypothesis sustaining that marketing implemented by entrepreneurs does not follow the process described by managerial marketing literature, which is one of the findings that has propelled entrepreneurial marketing research (Reijonen, 2010; Walsh & Lipinski, 2009; Hills, Hultman & Miles, 2008; McCartan-Quinn & Carson, 2003; Carson & McCartan-Quinn, 1995). The entrepreneurial marketing process, as it emerged in our study, starts with the idea for a product or service, for which market is still unknown. What follows is the attempt to validate the initial ideas by working the product-market fitting in close interaction with few customers, which, hopefully, contains the seeds of a new market. Expansion is, then, possible by finding customers with similar needs or by responding to contingency opportunities that may occur as word starts spreading. Growing pains may be endured, due to the inefficiencies involved. Finally, as the new company stabilizes and survival is no longer a daily concern, entrepreneurs start making marketing decisions in a more strategic way, and may even afford to refocus on a few areas to the detriment of others.

One of the premises of our study was that different decision making logics are associated to different marketing practices, which was confirmed. The link between effectuation and entrepreneurial marketing practices was previously suggested (Kraus et al., 2012; Hills & Hultman, 2011; Hansen & Eggers, 2010; Sarasvathy, 2001) and some empirical verifications were made (Lingelbach, Patino & Pitta, 2012; Whalen & Holloway, 2012; Hoffman & Vian, 2011; Read et al., 2009a). However, our results offer a greater degree of comprehension of such a relationship. By addressing it both

qualitatively and quantitatively, we were able to understand this link, exploring the whole marketing decision making process in context, the intricate influence of decision logics and conditions to decide on marketing practices and to understand their outputs under different circumstances. By assuming a contextual approach to the study of entrepreneurial marketing, our findings added new layers to the understanding of the concept. Moreover, we found that causal logic is sometimes used to support entrepreneurial marketing decisions and the other way around, and that the entrepreneurial marketing process does not exclude some activities consistent with the managerial perspective. Given that we took the context into account, we were able to explain this type of situations, particularly referring to the influence of the level of information available and marketing competency and their dynamics.

In fact, our results allow concluding that entrepreneurial marketing is not the opposite or substitute of managerial marketing. Both different marketing practices and their underlying logics can co-exist and produce positive effects. This result is consistent with previous studies highlighting that a variety of entrepreneurial ways of thinking and acting may co-exist and be linked to different circumstances. The very proponent of the effectuation theory agrees that causation and effectuation are not mutually exclusive and they can work complementary or alternatively in different contexts (Sarasvathy, 2001). Previous research has, actually, found that entrepreneurs may engage in different entrepreneurial behaviours. For instance, Stinchfield, Nelson and Wood (2013) note that, whereas, in some circumstances, entrepreneurs may develop a bricolage behaviour (Baker & Nelson, 2005), meaning that they manage to make what is possible with the means available, they can, alternatively, adopt more scientific processes, methods and tools. Vaghely and Julien (2010) also confirmed that entrepreneurs combine algorithmic and heuristic thinking and that they can switch rapidly from one information processing behaviour to another.

Our results show that entrepreneurial marketing is consistent with effectuation and other views of entrepreneurial behaviour, as mentioned above. These views are associated to the constructionist perspective of opportunities, but again, it does not deny alternatives. Sarasvathy et al. (2003) note that entrepreneurial opportunities can be constructed, created or enacted, but they can also be recognized and discovered. The authors believe that these views are extremely context-dependent and can be more or less useful depending on the circumstances. While the creative approach might be more suitable when uncertainties and ambiguities are predominant, the recognition approach is more adjusted to a situation where resources and goals are clearly known. Our findings add evidence to such a view.

Because our study focuses on the entrepreneurial marketing decision making, the circumstances that create the context for the analyzed decisions and entrepreneurial behaviours are related to the individual who decides. Drawing on the cognitive perspective in the study of entrepreneurial behaviour and on the concept of approximate or bounded rationality (Simon, 1979, 1955, 1956; March, 1978), we used the level of information available and processing capacity to assess the level of uncertainty for each marketing decision. Our results, both qualitative and quantitative, confirmed that information availability plays a fundamental role in the way entrepreneurs make marketing decisions and implement marketing practices. Previous research has also shown that having information about the market and the industry, as well as the product and production processes or the management is critical for reducing uncertainty (Jalonen, 2011; Freel, 2005; Gelderen, Frese & Thurik, 2000; Shepherd, Douglas & Shanley, 2000). What our study offers as a new contribution is a confirmed suggestion that entrepreneurial marketing is associated to uncertainty, to which the low information is one of the contributors. The results also show, however, that in order to be able to profit from the information available, the decision maker has to be able to process it.

The level of marketing competency was used in our study as a proxy for the processing capacity, since there is evidence supporting the important role of knowledge in marketing and management areas for entrepreneurial effectiveness (Colombo & Grilli, 2005) and that entrepreneurial marketing can be shaped by the capacity of entrepreneurs to implement marketing (Carson & Gilmore, 2000b). We found evidence in our qualitative data that these two general decision conditions, information availability and marketing competency, influence the type of marketing practices implemented by entrepreneurs, their decision logics and the corresponding effects. The association between conditions to decide and practices, logics and effects was also confirmed as significant through the quantitative analysis. This evidence allows us proposing a conceptualization of entrepreneurial marketing as a result of a contextualized decision making process.

In the next sections we revisit the entrepreneurial marketing process found in our study and the most salient aspects that entrepreneurs focus when marketing the new firm. Subsequently, the importance of the contextual conditions for entrepreneurial marketing decisions and practices is further discussed.

14.1. Entrepreneurial marketing process

The study shows that the entrepreneurs' initial marketing concern is not identifying and understanding unfulfilled market needs to address, as it is recommended by reference textbooks (e.g. Kotler & Armstrong, 2010), but, instead, idealizing and developing an unfinished offer based on unique capabilities. Ideas for new solutions were found to arise in a variety of ways, such as: internal idea generation; informal conversations with different people offering suggestions and as a result of R&D discoveries. When ideas are rooted in identified needs, they often result from informal observation of the world and even from personal needs felt by the entrepreneurs, but we could not find in our study situations of formal market research. This is also consistent with previous research on entrepreneurial marketing. Drawing, as we do, on the concepts of the effectuation theory, Morrish, Miles and Deacon (2010) also propose that, instead of starting with a product for identified and expressed needs, entrepreneurs place the focus on *who they are*, *what they know* and *whom do they know*, and then aggregate customers that have similar tastes and preferences.

In several cases, we found that ideas for the new offer are unfinished because they are concomitantly shaped by their recipients. Entrepreneurs in our study attested that they intentionally let room for the first customers, who represent important R&D partners, in a sense, to contribute with their insights that can be very important. Together, the partners mould the offer, whilst the market is simultaneously and symbiotically created. We found steady evidence that offers are often co-produced (Etgar, 2008) and firmly supported on partnerships that participate in the co-creation process (Read & Sarasvathy, 2012; Vargo & Lusch, 2004). This is also consistent with the idea of developing innovative and value-added products around customer intimacy identified by Mort, Weerawardena and Liesch (2012) as one of the key strategies of entrepreneurial marketing.

The pivotal role of partnerships and networks was consistently highlighted in our study; in line with previous entrepreneurial marketing research (Jones, Suoranta & Rowley, 2013; Gilmore, Carson & Grant, 2001) and entrepreneurship research in general (e.g. Salavisa, Videira & Santos, 2009; Elfring & Hulsink, 2003; Greve & Salaff, 2003). The focus on developing partnerships to build markets jointly with customers, suppliers and even potential competitors is also one of the central principles of effectuation (Read & Sarasvathy, 2005; Sarasvathy, 2001).

We confirmed in our study that some traditional marketing tasks, such as market research, are of little relevance to entrepreneurs. We found that entrepreneurs' approach to read the market, to

understand its peculiarities, is much more in line with what Jaworski and Kohli (2006) propose. Instead of seeing the prospect customer as an external subject of study, entrepreneurs in our sample rather engage in direct conversations feeding a learning process, in which both sides are involved in a dialog to get a deeper understanding of each other's needs. For such a purpose, any opportunity to engage in an enlightening conversation is seized. For this reason, activities such as distribution, sales or promotion events and even R&D in partnership serve the top priority intent of validating the concept and test rough market assumptions. Besides this opportunistic capability to obtain market feedback, entrepreneurs often resort to other simple but very effective tactics to assess market responsiveness, such as direct observation and free trials of the product. It is the capacity to use low sophisticated effective actions (Morris, Schindehutte & LaForge, 2002) that makes entrepreneurs such good bricoleurs (Stinchfield, Nelson & Wood, 2013; Baker & Nelson, 2005). It also allows maintaining information research costs at a manageable level to experiment many possibilities with the given limited means (Chandler et al., 2011; Sarasvathy & Dew, 2008).

We also found that, instead of targeting particular segments from the whole known market, entrepreneurs in our sample expanded from the niche they created. This result is consistent with previous research. Stokes (2000a, 2000b) found that, instead of using a 'top-down' approach, involving profiling the market segments, evaluating the attractiveness of each one and selecting and communicating a market position in order to differentiate from competitors, entrepreneurs use a 'bottom-up' targeting process. This inverted approach consists in starting by serving the needs of few customers and then expanding gradually, sustained in acquired experience and growing resources.

During the expansion process, entrepreneurs participating in our study both proactively sought new applications and markets for their existing offers and reactively leveraged contingencies, consistent with effectuation (Sarasvathy & Dew, 2005; Sarasvathy, 2001), such as developing new projects with new partners or incorporating less than innovative products in their portfolio to meet existing customers' requests. Such opportunities were regarded as ways to generate revenue streams, allowing self-sustaining the new company and feeding the financial drain associated to continuous substantial investments on R&D, including refining the main offer.

Even though providing interesting financial opportunities and allowing the survival of the young company, expanding in such a haphazard way was found to create diversion, lack of focus and lead to evolve in a zigzag pattern (Baum, 2003). This is a necessary evil, though, since in the process of creation, including having to open new markets, the clarification of the adjusted path has to be devised,

often by trial-and-error, entailing several iterations in a long learning cycle (Loch, Solt & Bailey, 2008; Gruber, 2004). The awareness of the need to learn in the journey, and to seize any opportunity to do it, was very prominent in our study.

Since we decided to include in our sample companies older than the age of six years initially set to define a young firm (Zahra, Ireland & Hitt, 2000), we were able to note and to better understand a pattern indicating that typically there is a moment, in the development of the new venture, when entrepreneurs change their marketing decision making process. More managerial marketing practices start to acquire relevance and causation principles, such as exploiting existing knowledge and maximizing returns, start to make more sense. Armed with higher experience and knowledge and with reduced uncertainty, entrepreneurs in our sample were found to think and act in a more strategic way, including deciding to focus in fewer and more attractive market segments. To the best of our knowledge, this dynamic was not approached in previous studies on entrepreneurial marketing. In the particular area of effectuation research, it has been suggested, though, that future studies could examine whether several aspects, including the developmental stage of a new venture, are related, and in which ways, to different sub-dimensions of effectuation (Perry, Chandler & Markova, 2012). When we divided our sample into two groups, the younger and the older companies, we identified that both entrepreneurial marketing and effectual rationality tend to be more prevalent in younger firms, although this relationship was marginally statistically significant and only in the case of marketing practices. However, as it is explained ahead in this chapter, we suggest that young firms tend to use entrepreneurial marketing and effectual logic more often because of the level of uncertainty they face, which is typically higher for young firms, and not directly because of their development stage.

Not only the marketing process follows a different pattern from managerial marketing during the period of intense high uncertainty that young firms endure, but also the main concerns and elements predominantly focused by the entrepreneurial marketing decision makers are diverse. The next section approaches the three most prominent aspects identified as main entrepreneurial marketing concerns.

14.2. Main foci of entrepreneurial marketing

At least three aspects were recurring topics in the participant's narratives: the importance of the new ventures' **Product** or offer development; the central role of **People**; and the need to obtain **Legitimation** and market trust. These elements are connected and sometimes intertwined.

As for the first aspect, the importance of the **Product** or offer development, it was confirmed by the expressive number of identified incidents relating to new product development and introduction to the market. The focus on product in entrepreneurial marketing is related to two aspects. One is that it often represents the above-mentioned starting point for the marketing process. Being the sample of entrepreneurs mainly formed by technologists, the prevalence of the technology push approach to innovation was very obvious. The fact that the product starts by being more rooted in the firm's capabilities and in the entrepreneur's vision and preferences than in market's needs is adjusted to a creation approach (Alvarez & Barney, 2005). From this perspective, entrepreneurs base their creative process on their available means (Dew et al., 2008a; Sarasvathy & Dew, 2005) not only to create new products but also to create new markets, rather than conquer them (Kim & Mauborgne, 2005, 2004), consisting in a market-driving instead of a market-driven perspective (Schindehutte, Morris & Kocak, 2008). Additionally, the prolific nature of science and technology-based firms, in terms of creation capacity, allows them setting the technical conditions for both creating and selecting from several potential opportunities, enabled by their technological platforms. This result adds to the discussion about opportunities being created or discovered, in line with Bingham, Eisenhardt and Furr (2007), who state that «opportunity capture for firms in dynamic markets may be more about appropriate selection and execution of opportunities, and less about discovery or creation» (p. 42).

Marketing textbooks highlight that marketing should start with the customers' needs and that focusing on the product will eventually lead to losing sight of how the customer's needs evolve. This idea resonates with Levitt's (1960) seminal concept of marketing myopia, still broadly used today. We concluded, however, that participant entrepreneurs were able to profit from the proven synergetic effect of entrepreneurial orientation and market orientation (Boso, Cadogan & Story, 2013; Jones, Suoranta & Rowley, 2013; Hakala, 2011; Nasution et al., 2011; Baker & Sinkula, 2009; Atuahene-Gima & Ko, 2001) by incorporating the feedback from the market from a very early stage. This result is consistent with the idea of customer-intensity proposed by Morris, Schindehutte and LaForge (2002) as one of the underlying dimensions of entrepreneurial marketing.

In our study, we found, in fact, that the innovation process is anything but linear and the prospect customers get to participate in the product development, also pulling some features to adjust to their needs. Instead of being disconnected from the market, actually, the opposite occurs. Because new ventures tend to work closely with a few initial customers, the offer may get too attached to the characteristics and particular needs of those customers, demanding ulterior standardization costs. Confirming previous research, entrepreneurs participating in our study were found to be able to operationalize such articulation due to their small size and flexibility, personal relationships and day-to-day market immersion (Hills et al., 2010; Collinson & Shaw, 2001).

Also confirming the product's centrality in entrepreneurial marketing is its relevant communication and selling power, by offering a concrete proof of the firm's capabilities and promises. We denominated such strategic function as *productisement*, a blend of offer (product) and communication (advertisement). Previous literature on entrepreneurial marketing did not give as much emphasis to this component as our results suggest it should be given. In fact, we identified that, for new firms, offering a neat product helps building credibility and reputation, generating buzz, including the media attention; engaging fans that help spreading the word; and producing positive references, which is known to be an important entrepreneurial communication tool (Stokes & Lomax, 2002). Some entrepreneurs even consider that there is little value in developing other communication or selling actions if the product fails to deliver the promise. Due to their lack of market trust, new firms must reassure the market that the relationship to be established will work out, presenting external evidence of its trustworthiness (Aldrich & Fiol, 1994). This is more effectively achieved by showcasing their competency through concrete work. For this reason, some participants attested that they consider more important to work on a strong portfolio to convey credibility to the market than to invest in promotion and sales actions.

The second aspect assuming a central role in entrepreneurial marketing is **People**. We found that the significance and persistence of people in entrepreneurial marketing is reflected in several ways. One is the importance of being able to put together the right team, with the appropriate skills and knowledge, which was previously focused in the study of entrepreneurship (Colombo & Grilli, 2010, 2005; Chandler & Jansen, 1992). Not only the founding team is important, but also who the entrepreneur is able to bring on board and resort to, during the journey, is considered vital. This idea is reflected also by the effectuation theory, embedded in the means *whom I know* and *who I am*, and also in the *developing partnerships* principle (Dew et al., 2008a; Sarasvathy, 2001) and in line with the

extensive literature on entrepreneurial networking (Gedajlovic, Honig, Moore, Payne & Wright, 2013; Slotte-Kock & Coviello, 2010; Hoang & Antoncic, 2003; O'Donnell et al., 2001). People are also one of the four P's previously proposed for entrepreneurial marketing (Zontanos & Anderson, 2004), perhaps one of the most important, due to the relational nature of marketing in entrepreneurial firms (Kolabi et al., 2011; Martin, 2009).

The study shows that people also play an important role in defining the firms' identity and in helping to convey it to the market, feeding the firm's emergent positioning. Previous studies on entrepreneurial marketing have addressed the role of the vision and personal characteristics and values of the entrepreneur in defining guidance for entrepreneurial decision making, particularly marketing-related (O'Dwyer, Gilmore & Carson, 2009; Ling, Zhao & Baron, 2007; Hultman, 1999). However, the role of stakeholders, including other members of the team, customers and suppliers, in the definition of the company's direction through marketing positioning, was not conveniently explored in entrepreneurial marketing research. Our study offers a new contribution by showing that, the same way as the outlines of the new companies' products are shaped by the characteristics of the first customers who help developing them, so is the contour of the new companies' positioning. The purposeful choice of target customers, identification of competitors and selection of differential advantages to support positioning (Brooksbank, 1994) is an alien task to entrepreneurs due to the high levels of uncertainty related with almost every aspect of the new business. So, people in some way related to the company, such as employees, customers, partners and advisors, bring in some of their own characteristics, and positioning eventually will stabilize, emerging from such a melting pot of traits, alongside with the features of the products.

Our results also show that people are critical channels of marketing communication. People as communication channels include the priority ascribed by the entrepreneurs to interpersonal marketing communication and direct dialogues, as previously identified in entrepreneurial marketing research (Collinson & Shaw, 2001; Stokes, 2000a), but also the reliance on opinion leaders, who are able to transfer their credibility to the new company's offer.

Additionally, we also found that having reputable customers in the portfolio works as communication leverage, boosting the trust of the market. So, targeting specific customers is useful, since some may yield higher impacts in the long run for the firm than just their direct financial return. Therefore, working with strategic customers, even for free, may be considered a marketing investment,

although the entrepreneur needs to assess the potential of a particular customer for being a trust maker or a reference generator.

The third prominent aspect in which entrepreneurs focus so much attention is on **Legitimation**, that is, on gaining market's trust by presenting proofs of value. This idea is in accordance with the concept of legitimacy mentioned before, which refers to the assumption that some entity's actions are desirable, suitable or appropriate (Suchman, 1995). There is very little guarantee of the desirability or even the appropriateness of the proposition to the market of an unknown new company, and more so, if its offer involves radical innovation. As a matter of fact, new firms have to deal with very sceptical stakeholders (Aldrich & Fiol, 1994). When studying entrepreneurial marketing in born global firms, Mort, Weerawardena and Liesch (2012) also found the theme of legitimacy as a strong entrepreneurial marketing element contributing to their success, which researchers believe have escaped the scrutiny of previous entrepreneurial marketing literature. This aspect was, however, very salient in our findings, contributing to adding evidence of its relevance for entrepreneurial marketing.

In order to overcome such lack of legitimacy and earn trust, new firms in our study were found to use several tactics to prove their value. As described above, both the product, as a communication tool, and credible people are used as proofs of value to build trust in the market. In fact, offering *proofs of value* based on *people* and *product* strengths may well represent three important P's of the entrepreneurial marketing approach. Moreover, we also identified some other tactics consistent with what Mort, Weerawardena and Liesch (2012) found, such as emphasizing, in any way possible, the prizes and awards won in different contests, mainly innovation related and also public funding obtained. These represent filters that provide some assurance concerning the quality, seriousness and viability of the new firm. We also confirmed that the company's website plays an important role in offering a platform to make the proofs of value known, reason why some firms perceive this as a marketing communication tool that lends credibility at a fairly low cost. It serves as a vehicle to communicate the mentioned trust building information, such as portfolio of customers, products and awards, but also scientific papers and conference communications of the members of the team, particularly in science-based companies, demo videos and customer testimonials, for instance.

Other ways that we found that new companies use to present proofs of their value to gain legitimacy are: to emphasize in communication materials connections to universities, research centres and other credible partner institutions and display the academic spin-off label. Association with

organizations and individuals that already have credibility was previously identified by literature on marketing of new firms as one of the methods entrepreneurs may use to mitigate customers' perception of risk (Ali & Birley, 1998). The value of establishing relationships with prestigious institutions to earn trust and legitimacy in the early life of the company was also found in other research areas, such as in entrepreneurship networking (e.g. Elfring & Hulsink, 2003) and organizational ecology (e.g. Baum & Oliver, 1991).

Because of their liability of newness, particularly the lack of market legitimacy (Stinchcombe, 1965), new firms need to focus on establishing a very honest and transparent relationship with different stakeholders based on real proofs of their value proposition, and steadily earn trust, more than trying to create market interest and extensive brand awareness. This is yet another distinctive aspect of entrepreneurial marketing found in our study that we believe was not appropriately addressed in previous research. We concluded that entrepreneurs in our sample end up by making such choice in a sort of accidental and intuitive way. We suggest that entrepreneurial marketing practices should address the important aspect of proving value to acquire legitimacy more deliberately. We agree with Zimmerman and Zeitz (2002), who introduce the term *strategic legitimation* to refer to an approach by which companies can exercise strategic choice over the amount of legitimacy they have, and they use the term *legitimation*, rather than legitimacy, to indicate that this is a process that can be initiated by the new venture.

Lack of initial legitimacy, regarding the doubt about the market acceptance, is one of sources of uncertainty identified in literature, imposing particular challenges to new firms (Jalonen, 2011). Literature indicates that other sources of uncertainty are, for instance, incomplete knowledge about the product specifications or technological processes, needed resources and skills, the industry and competitive structure, and general environment variables (Jalonen, 2011; Freel, 2005; von Gelderen, Frese & Thurik, 2000; Souder & Moenaert, 1992). We found in our study that uncertainty is higher when the product and/or the market are new, situation where there are not any references against which to compare or anticipate outputs. In our study, we also identified that such uncertainty is worsened by lack of marketing competency and it is particularly acute in the early life of the companies. In such conditions, marketing decisions are constrained, assuming different shapes as the conditions change. In fact, as mentioned earlier, we found a dynamic process of entrepreneurial marketing, suggesting that the marketing process and main concerns evolve and assume different shapes in different circumstances. Over the next section we will address this them in more detail, proposing and

discussing the conceptualization of entrepreneurial marketing as a result of a decision making process in context of uncertainty.

14.3. Entrepreneurial marketing in context of uncertainty

Entrepreneurial marketing, as practiced by the participating companies in the present study, does not represent an alternative to managerial marketing. Instead, based on our results, we conceptualize entrepreneurial marketing as the result of a decision making process that takes place within a specific context, characterized by high levels of uncertainty, that companies experience especially in their early life, but also whenever predictability for the outcomes of a particular marketing decision is very low.

The importance of understanding the context in the study of a phenomenon, particularly in the entrepreneurship area, has been highlighted (Welter, 2011). Because entrepreneurial action is all about the future and the future is unknowable, entrepreneurship is typically contextualized in uncertainty, and it is with no surprise that the concept of uncertainty constitutes a cornerstone for many theories of the entrepreneur (McMullen & Shepherd, 2006).

The idea of marketing-in-context has been proposed by Carson and Gilmore (2000a) as a situation specific activity shaped by the life stage of the company and the norms of the industry, and influenced by the SMEs' characteristics, such as scarce resources, and by the entrepreneurs' capacities as marketing decision makers. Morris, Schindehutte and LaForge (2002) also note that marketing manifests differently as companies grow older and expand, and Kotler (2002) distinguishes different marketing strategies at different development stages, going from the entrepreneurial marketing stage to the formulated marketing stage and to the intrapreneurial marketing stage.

Our results are in accordance with such a view. However, we add to the concept of marketing-in-context (Carson & Gilmore, 2000a), by integrating a number of contributions based in our results, both qualitative and quantitative, often aligned with some previous findings. Firstly, the contextual circumstances under which entrepreneurial marketing decisions and activities are more appropriate can be summarized by the level of uncertainty (Read et al., 2009a); and the level of uncertainty is best described by the availability of information and the processing capacity of the decision maker (Simon, 1991, 1955). Secondly, uncertainty is generally higher in the early stages of the new venture

development, due to newness, but it can also exist in different stages, for particular decisions, making entrepreneurial marketing also relevant for established firms (Ionita, 2012). Thirdly, entrepreneurial marketing is associated to the effectuation principles, which are appropriate to deal with uncertainty contexts (Kraus et al., 2012; Hills & Hultman, 2011) and to a creation approach. Finally, fourthly, entrepreneurial marketing and effectuation can be combined with managerial marketing and causation and both practices and logics can produce beneficial outcomes when adjusted to the decision-making circumstances. This result confirms previous suggestions that particularly effectuation logic may be context-dependent (Sarasvathy, 2001) and offers additional evidence that entrepreneurial marketing is also adjusted to the circumstances.

Regarding the evolution of entrepreneurial marketing, the conceptualization of marketing in context of uncertainty based on our results distinguishes from previous research in some aspects. First, we do not propose that marketing is shaped by the evolution of the company's life cycle. Instead, our evidence strongly suggests that marketing practices adjust to the level of uncertainty. Although it is expectable that uncertainty related to novelty declines as companies evolve, as a result of the passive learning and consequent ignorance decay (Shepherd, Douglas & Shanley, 2000), it is possible that, at any point of its evolution, the company may assume a different new state, in which uncertainty is higher again. This view is more consistent with the dynamic states approach (Levie & Lichenstein, 2010), which we discuss in more detail ahead, than it is with the life cycle model.

The second aspect in which our contribution differs from previous ones is that, like Sarasvathy (2004), we focus our attention on entrepreneurial agency, that is, on the person that makes entrepreneurship happen. From such perspective, the firm is a product of the entrepreneur's decision making process and his/her perception of the environment circumstances, shaped by his/her cognitive conditions. Thus, both the firm (internal) conditions and the environmental conditions are filtered by the cognitive structures of the entrepreneurs, which ultimately set the subjective level of uncertainty (Freel, 2005).

Although previous entrepreneurial marketing research highlight conditions, such as resource shortage, as influencing the type of marketing that new firms practice (Gruber, 2004; Gilmore, Carson & Grant, 2001), our study proposes a different approach, by showing that uncertainty plays a very important role and that, under such circumstances, not having resources available may, contrary to what would be expected, be beneficial.

In fact, the results of our study show that limited financial resources force entrepreneurs to be more careful in funds usage. This occurs because they perceive a higher risk, since small amounts of money lost may represent a great proportion of what companies have available. Therefore, they are more open to experimenting several solutions starting from the less risky ones, and investing more resources only when some path is proven right. Also, this financial scarcity forced some entrepreneurs in our study to be more creative and to find new and effective ways to reach the market. Additionally, because of their lack of financial resources, entrepreneurs are more prone to create partnerships, namely with prospects, but also with commercial partners, to develop their solutions, which enhance the chances of success, because of the market knowledge they bring aboard. Finally, financial resource shortage also leads to indirect positive consequences, such as forcing entrepreneurs to maintain parallel jobs that come to benefit the new company through the inflow of knowledge and relationships. Therefore, for new ventures in a start-up phase, marketing competency and information were found to be far more important resources than money, which may, in fact, lead to worse decisions under uncertainty.

The previous discussion is consistent with some earlier research. When proposing a conceptual framework to explain how marketing emerges in start-ups founded by the Millennial generation, Lingelbach, Patino, & Pitta (2012) propose, precisely, that resource scarcity is something that should be sought, not avoided, since it may foster creativity in problem solving, which helps avoiding the traps that potentially arise from following the traditional pathway. The same result is proposed by Fisher (2012), confirming previous research identified by the author. He found that when acting within the bricolage and effectuation perspective, resource constraints are sources of creativity and innovation. Having a «“penurious environment”» (p. 1043) as the starting point, the entrepreneur can leverage means in creative ways while putting at risk only what he/she is willing to lose. The author adverts to the potential risks of excessive amounts of capital that could lead the entrepreneurial team to be too comfortable, neglecting creativity. As he states, «entrepreneurial ventures may be better off if they are forced to operate within tight resource constraints» (Fisher, 2012, p. 1046).

External investors, in particular, may make the mistake of influencing entrepreneurs to invest too much in one single path under uncertain situations, leading to substantial financial losses. We found evidence in our sample of this type of situation. Investors' entry in two of the participating companies led their entrepreneurs to commit too early with strategic marketing decisions regarding targeting and commercial options that did not yield positive effects. As too much was invested, it was hard to quit,

thus, the adopted strategy was led too far and major losses occurred. Alvarez and Barney (2005) warn, precisely, that when external funding is obtained under uncertain conditions, entrepreneurs may even damage their ability to prosper since it tends to force entrepreneurs to follow an identified opportunity, even if it turns out not to be as interesting as predicted.

The effectual principle of affordable loss is a way to avoid these situations, allowing experimenting as many strategies as possible with low investment before committing to the best path. However, most investors have high marketing competency, which we found to be related with a more causal rationality. As our results show, although marketing competency can help reducing uncertainty by providing processing capacity for the existing information, when such information is impossible to obtain, marketing competency can have the opposite effect, since it may give a false sense of predictability, under unpredictable conditions. Failures are more catastrophic when investors use a causal rationality, identifying objectives and defining a single strategy to attain them under uncertainty.

We do not mean that all new ventures are better off without monetary resources, in all decision making situations. In fact, we observed that under low uncertainty, having funds available allows taking off faster to gain market position. Efficiency and growth can be leveraged by external investment, but they require both information and capacity to use it effectively.

As previously noted, uncertainty tends to be more acute in the early life of the company. At the starting point of the business, most entrepreneurs participating in our study had neither information available nor marketing competency. Marketing competency can be built over time benefiting from the cumulative effect of experiential learning. We confirmed, in fact, that entrepreneurs become more marketing proficient over time. As for the information, it may be totally absent when making a particular decision in the future, even when the company has already acquired a fairly good stock of data. This situation typically occurs in the case of a radical new product launching, or the creation of an innovative marketing communication channel, for instance. In practice, uncertainty may not follow linearly the aging and growing of the company. Therefore, we propose that entrepreneurial marketing decision makers should adjust to information cycles, more than to the company life cycle, an issue that we address next.

14.3.1. Entrepreneurial marketing dynamics and information cycles

Our qualitative results suggest that entrepreneurial marketing is related to the level of information available, hypothesis that we confirmed through quantitative analysis. Souder and Moenaert's (1992) definition of information suits fairly well our findings. The authors describe information as «verbally encoded knowledge» (p. 487) that includes facts, truth, principles but also understandings derived from previous experience, practices that serve as references or examples, ideas that have been proved valid by test and also findings from research that has been validated.

Previous studies on entrepreneurial marketing have placed focus on resource shortage, as discussed above, and on firm size to identify the reasons for the distinctiveness of entrepreneurial marketing (Gruber, 2004; Morris, Schindehutte and LaForge, 2002; Chaston, 1998). However, our findings show that size is not related to different marketing practices, neither in terms of number of employees, nor in terms of turnover, whereas age is. This result confirms previous evidence that smaller firms do not implement entrepreneurial marketing any more than larger ones do, except when they are also younger (Kilenthong, Hills, Hultman & Sclove, 2010). As Kraus et al. (2012) note, most papers do not make enough distinction between small and new, failing to detect that small, new, entrepreneurial ventures may have different needs that distinguish them from small, established, traditional firms. Based on our results, it is our contention that the fact that younger firms, more often than older ones, implement entrepreneurial marketing is related to the more acute situation of uncertainty they face. Typically, as they mature, firms manage to reduce uncertainty by building information by experimentation and gaining processing capacity by experience, for instance.

Portraying such evolution, Loch, Solt and Baily (2008) state that «uncertainty evolves over the typical stages of development» (p. 43). However, it might be possible that these 'typical stages' are not so 'typical' after all. In fact, stages of growth models, which have dominated literature for more than sixty years, have recently been questioned by Levie and Lichenstein (2010). The authors made a review of 104 of these models published in the management literature, and neither have they found consensus on their basic constructs, such as what a stage is and how many stages there are, nor have they found empirical confirmation of the stages theory. Instead, Levie and Lichenstein (2010) propose the dynamic states approach. In this alternative view, instead of going through a number of stages, the evolution of the firm is seen as a continuous search for the best fit between the company's business model and resources and the market, in order to deliver its value proposition. A dynamic state is, according to the

authors, the firm's attempt to match internal capacities with external demands as efficiently and effectively as possible. As environment changes, alterations in the business models that transform organizations must be made, leading the new firm to a different dynamic state. If the new dynamic state is adjusted to the environmental conditions, the company will continue to exist and, eventually, thrive. According to such proposal, it is not easy to anticipate the number or the sequence of states of a particular business, so, it has not the same predictive function as the stages models have. However, when changing their internal conditions, new organizations can, themselves co-create their environment and, consistent with the effectuation theory, there is no need to predict a future that can be created.

Our results offer a contribution to empirically confirm the relevance of the dynamic states perspective. In fact, we found that new companies not always follow an incremental and sequential path of growth. Instead, some participants stated that their companies evolved by adapting to the conditions, even scaling down, sometimes, to be more fitted and create higher value. As Levie and Lichenstein (2010) put it, «Rather than assuming growth, a more sustainable approach would be to find the most effective and efficient dynamic state between the entrepreneur, her or his organization, and the niche market» (p. 337). We also offer evidence that entrepreneurial marketing and managerial marketing, and effectuation and causation rationalities play alternate roles under different circumstances. Instead of shifting along the company's life cycle, we found that they shift roles along the information cycles. Information tends to build up in time, and, therefore, the level of uncertainty is expected to lower in the future, constituting the information macro cycle. However, we also observed information micro cycles. That means that, although entrepreneurial firms tend to start using effectuation and entrepreneurial marketing and, gradually, shift to causation and managerial marketing as the general level of uncertainty lowers for the whole company, they can have mixed situations in the short run. We concluded that effectuation and entrepreneurial marketing, and causation and managerial marketing can be used alternatively to adjust to different uncertainty situations and to build knowledge, so as to support similar decisions in the future. Even when a company changed to a state tending to use causation and managerial marketing, whenever there are new information voids related to particular decisions, effectuation and entrepreneurial marketing can be called again.

Following such ideas and also based on the entrepreneurial learning cycle proposed by Carson and Gilmore (2000b), the following graphic representation (Figure 14.1.) of the evolution of the new company decision making process adjusted to the changing conditions of the contextual and perceived uncertainty summarizes the notion of information cycles. The decision space is bounded by the level of

information available and marketing competency. In the long run, decisions tend to be more causal and managerial marketing more often implemented, but different decisions may face different conditions at any time.

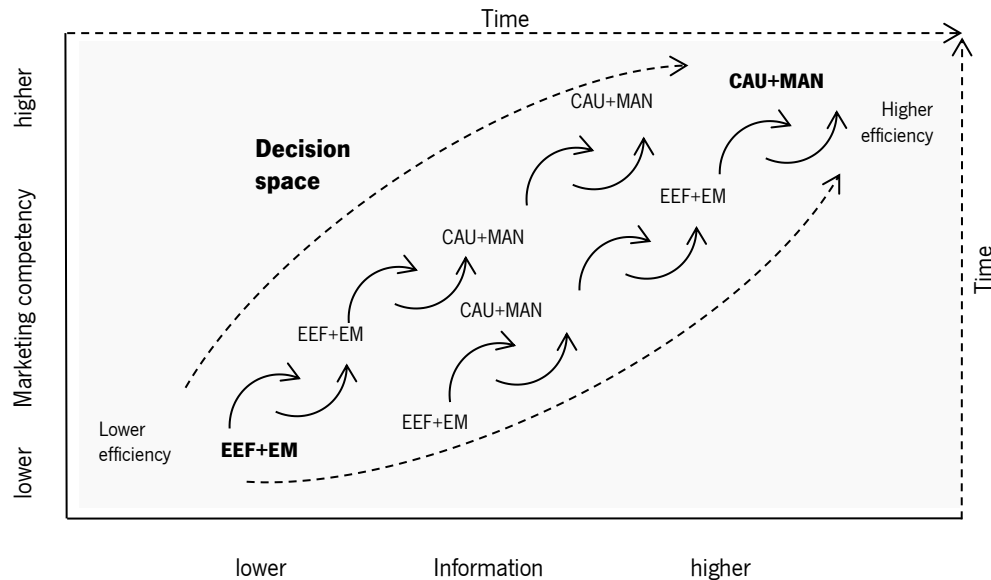


Figure 14.1. Entrepreneurial decision-making information cycles

Results of our study indicate that entrepreneurial marketing, within an effectual decision making logic, is less efficient than managerial marketing, oriented by a causal rationality, since it often involves experimentation, dispersion, progressive investment and sharing returns with partners. Most of all, effectuation and entrepreneurial marketing are based on gradual learning, which may delay the company's growth. However, it suits well uncertain environments, allowing the establishment of potential to explore in a more stable future and resulting in very few negative consequences, under low predictability conditions. Managerial marketing, within a causal rationality, on the other hand, is more focused, applies tested models and allows a faster take-off and expansion, being, however, riskier under uncertain conditions, offering higher chances of decision failure.

Our results confirm Sarasvathy's (2001) assertion that «both causation and effectuation are integral parts of human reasoning that can occur simultaneously, overlapping and intertwining over different contexts of decisions and actions» (p. 245). Being decision logics associated to marketing practices, these results add new layers to the existing knowledge about entrepreneurial marketing, strengthening the idea that it should be not seen as antagonist to, and potentially substitute of

managerial marketing. Therefore, regarding the discussion about entrepreneurial marketing representing or not a paradigm shift (Collinson, 2002; Day, 1997), or the more extreme postmodernist prediction of the managerial marketing death (Brown, 2006; Smithee, 1997), our results give support to the currently most accepted idea that it is not a matter of challenging the mainstream perspective of marketing, but only to supplement it with knowledge about marketing as it is implemented by entrepreneurs (Hills & Hultman, 2011). These contributions are critical for mainstream marketing, though, since the conditions of uncertainty that entrepreneurs face are, for long, becoming increasingly common in the operating context of established firms, as well (Achrol, 1991). In fact, warnings for the marketing mid-life crisis and accusations of its detachment from reality are not new (Brown, 1995; Brady & Davis, 1993). Because of that, knowledge to help marketing becoming more entrepreneurial is welcomed (Kraus et al., 2012). Previous literature calling attention to the need for marketing to evolve assumes that adaptations should be made to fit the changing environment. Our contention, however, is that changes in marketing decision making and marketing practices are made by entrepreneurs to adapt to new information circumstances, being environmental or otherwise.

Other apparently opposing perspectives were found to co-exist, such as the use of both Blue Ocean, which is associated to the new markets exploration perspective, and competitive strategies, which refer to the existing market opportunities exploitation (Burke, Van Stel & Thurik, 2009), for instance. As the authors note, the greatest challenge is to find the optimal blend between these different approaches. The same challenges apply in the case of marketing, but we believe the evolution of marketing knowledge will help entrepreneurs and managers alike to better assess their marketing decision making conditions and determine the most suitable approach. However, this is not a consensual advice. Slater, Hult and Olson (2010), for instance, who studied the effectiveness of creative marketing versus implementation of marketing strategy, do not advocate that managers should try to adjust their focus as conditions change, since they only found marginal evidence of the benefits of such adaptation, needing further inquiry. We, on the other hand, suggest a conceptualization of entrepreneurial marketing as marketing in context of uncertainty and, consequently, if the context changes, marketing practices should also adapt.

As illustrated in Figure 14.1., such adaptation tends to be done as the company evolves, but a smart change of gears can also be made at any time in face of each particular marketing decision conditions. Therefore, even in more stable moments in the firm's development, adaptations can be made, making entrepreneurial marketing a nonexclusive activity of new firms. On the contrary, it can,

and should, also be used by older and established firms in some more uncertain situations, typically when innovation processes are involved. Therefore, the two different marketing perspectives may be implemented in parallel. Managerial marketing can be maintained to expand and grow more established and less uncertain business areas or projects, whereas entrepreneurial marketing, based on an effectual rationality, can be used to make decisions and develop marketing actions for more unstable projects. Being a context dependent activity, entrepreneurial marketing, as it is characterized in our study, is in agreement with the proposition of Ionita (2012), who describes it as not being related to company size or lifecycle, but to a particular environmental set of conditions characterized by high level of uncertainty. In this way, entrepreneurial marketing, following an effectual rationality, can be best understood at the light of the creation theory (Alvarez & Barney, 2005), which will be discussed next.

14.3.2. Marketing decision making from the creation perspective

Alvarez and Barney (2005) propose the creation theory as a logical alternative to the discovery theory. The creation perspective refers to the social constructionist framework, assuming that opportunities do not exist independent of entrepreneurs, which have to make decisions within uncertain environments. From the discovery perspective, on the contrary, it is assumed that opportunities exist independent of the entrepreneur, which is able to recognize them due to their particular characteristics that make him/her different from other managers. The authors do not suggest that the discovery theory should be abandoned, as both discovery and creation can be achieved. They only call attention to the need of carefully examining the context under which entrepreneurs are operating when researching entrepreneurial behaviours, since some are more appropriate for discovery settings, whereas others are more suitable for creation settings.

Our study suggests that, while entrepreneurial marketing actions, implemented under uncertainty, fit the creation perspective, consistent with effectuation scenarios, managerial marketing is adjusted to the discovery perspective, for which a causal rationality is also appropriate. When adjusted to the contextual conditions, both effectual/entrepreneurial marketing and causal/managerial marketing decisions produce beneficial effects. Alvarez and Barney (2005) highlight, precisely, that the effectiveness of marketing efforts may vary significantly depending on the context, sustaining that entrepreneurs will create and exploit marketing opportunities more effectively if they develop strategies in a context-appropriate way. They note that, in discovery settings, detailed and relatively unchanged

strategies may be more appropriate, whereas, in creation settings, less detailed and more flexible ones are more suitable. If an entrepreneur is creating his/her opportunity in a setting of great uncertainty, he/she cannot look for exogenous changes in the market or industry to detect marketing opportunities, because these are being created. Instead, he/she can use attributes of the product, such as new technologies, to create possible opportunities, as our research revealed.

To use Sarasvathy's (2004) cliché expression, entrepreneurship is all about 'making it happen', which involves someone creating something. We found such creation perspective in our results, in the sense that, in some cases, market is created in the very moment it is approached with an offer, but such an offer also incorporates knowledge from the emerging market, that is, the first customers. This is a case of circular cause and consequence, in which product and market contribute to the existence of each other. Although we found that, in many cases, the new company's idea for an offer starts inside-out, following a technology push as opposed to a market pull approach, we observed several situations of a rough offer being released to a limited market and then both start shaping and making sense of each other, as information is built. Read and Sarasvathy (2012) refer to this idea as the intersubjective nature of some information and knowledge, meaning that sense making is co-created interactively.

Within such creation perspective, some well-established managerial marketing practices are not practicable. Mass media communications, for instance, are of little use, since the market is under construction and cannot be targeted and reached by such means. Bettiol, Di Maria and Finotto (2012) note, precisely, that SMEs tend to not invest in impersonal communication and promotion based on traditional media, not only because of resource shortage, but also because entrepreneurial offers and new concepts are, often times, market-driving (Schindehutte, Morris & Kocak, 2008), needing to be approached through recurring interactions. Similarly, if the creation perspective is to be assumed, marketing planning too early can mean a waste of resources or even be misleading, since «too rigorous strategic planning under conditions of uncertainty can short circuit the opportunity enactment process» (Alvarez & Barney, 2005, p. 20). In creation settings, it is more appropriate to use inductive, iterative and incremental decision making, and leading by heuristics and biases are acceptable, while more traditional forms of strategic planning are more likely to be useful when conditions shift from uncertain to risky (Alvarez & Barney, 2005). As Bettiol, Di Maria and Finotto (2012) note, from an interpretative and social constructionist perspective, marketing «does not follow, logically and chronologically, choices on processes and products. On the contrary, the contents of marketing strategies and communications

are generated from the original interpretation of the environment elaborated by the entrepreneur» (pp. 245-246).

We may conclude from the sample studied that none of the situations identified by the entrepreneurs as being contingent and not planned, was completely external, without any input of the entrepreneur. Sometimes, an unexpected situation was taken into account and converted into an opportunity because it made sense to entrepreneurs, because it fitted their beliefs, informed by several pieces of information they continuously collected, because they understood how they could take advantage of it or because they were advised by other savant people to do so. In that sense, contingencies are just triggers, but, ultimately, being able to interpret and make decisions upon them is the key. We may conclude that opportunities are, then, created, since, in the end, they depend upon a decision of the entrepreneur to even being considered.

Additionally, both contingencies and interactions that can result on partnerships may not be attributed to only luck or chance. That is, even for the fortuitous events, the ones that are not planned, favouring conditions can be set. As a result, we found statements such as «I have to create the conditions that increase the chance of good things to happen [...] It is a kind of planned accident» (#41: Digital Technologies; B2B) and «Luck is built. Sometimes it seems that things come to us, but they don't» (#42: Business Services; B2B).

In the creation context, intensely marked by uncertainty, entrepreneurs must deal with unforeseen, unpredictable factors, referred to as unknown unknowns (Loch, Solt & Bailey, 2008). We found that entrepreneurs develop strategies to be able to make marketing decisions under such circumstances. Typically, entrepreneurs build information and knowledge by experimentation, that is, by trial-and-error, which consists in experimenting alternative solutions for well-structured problems, or by learning-by-doing, which is applied when the level of uncertainty is such that it does not even allow knowing which alternative solutions may exist, since the problem, itself, is ill-structured (von Hippel and Tyre, 1995).

In fact, we found that the ability to learn plays a very important role in marketing decision making in creation contexts, not only to grow the stock of information, but also to gain marketing competency. Therefore, the possibility to extract knowledge from experiences, being successful or otherwise, was regularly highlighted in contexts of decision making processes under high uncertainty in order to reduce it, which is consistent with previous research (Fraser & Greene, 2006). In such

contexts, both experiential learning and observational learning (Holcomb et al., 2009; Kolb, 1984; Bandura, 1977) are relevant and help entrepreneurs progressing in the information cycle. This result helps explaining why the ability to acquire potential for future was the most frequently indicated marketing decision impact, especially when information to make decisions is low. In this context, entrepreneurs are focused on learning and ensuring that subsequent decisions are more effective and efficient. It is important to note, however, that, as Holcomb et al. (2009) warn, using these information-processing tactics to create and attribute meaning to newly acquired information may lead to incomplete information, which may also be vulnerable to the biasing effects of heuristics.

Sommer and Loch (2004) identify in literature two main approaches for managing innovation with unforeseeable uncertainty and complexity. One is the above mentioned trial-and-error, referring to flexibly adjusting project activities and targets to new information, as it becomes available. The other is selectionism, consisting of trying many solutions in parallel and selecting the best *ex-post*, that is, to run parallel trials and choose the most effective. Selectionism allows learning faster but it may involve higher costs, since different options are being tested at the same time. Returning to our suggestion that entrepreneurial marketing must not be seen as an exclusive practice of new firms and that, on the contrary, established companies can also implement it, we believe that strategies to deal with uncertainty may be one of the differences that distinguish entrepreneurial marketing in established and in new firms. Given that, typically, established firms have more resources available, they can opt more often for selectionism, which seems to be the best choice when both uncertainty and complexity are high (Sommer, Loch & Dong, 2009), allowing them speeding up the learning cycle. On the contrary, new firms may have to resort to trial-and-error, which involves lower cost but may take longer to yield the same learning effects.

Experimenting to reduce uncertainty not only allows creating information that is not otherwise available for marketing decision making, but also helps reinforcing firms' capabilities. Zahra, Sapienza and Davidsson (2006) propose that trial-and-error learning and improvisation are useful for developing and using dynamic capabilities, which the authors define as «the abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s)» (p. 918). That means that, in context of high uncertainty, within a dynamic and unpredictable environment, new firms have to be adaptive and change their routines. These new routines are, according to Zahra, Sapienza and Davidsson (2006), the foundation for the firm knowledge not only to solve existing problems but also to change or reconfigure existing substantive capabilities and the way

the firm solves its problems. The authors claim that having to deal with failure and with volatile environments favours the development of dynamic capabilities. However, they also propose that the proneness to experiment is likely to decrease as firms grow older. As time passes, companies become increasingly aware of their capabilities and develop a bond with their way of doing things. As previously noted, we also propose that experiential learning benefits can decrease with the accumulation of marketing competency. However, it can be relevant at any time with respect to information, so we suggest that firms should be open to experimenting at any time of their life.

We understand, however, that the adaptability to uncertainty may be more easily managed by flexible small companies, whose resources are fairly well manageable, without the need for a more rigorous control. When companies grow and start having coordination costs, it should be more difficult to adapt to different uncertainty circumstances. In fact, Hallbäck and Gabrielsson (2013) found that adaptation of marketing strategies decreases as companies grow. We also found evidence that more established companies compensate such lack of flexibility and adaptability to cope with new situations by contracting new entrepreneurial companies intending to emulate that flexible quality through outsourcing of flexible suppliers. The CEO of one of these contracted firms stated that the client told them: «'Our problem is this... work on it'» and he adds «they know how to think, to strategize... we know how to do [...]. We don't go to the books to see how things must be done [...]» (#11: Business Services; B2B).

Experimenting to obtain information for decision making and being flexible to adapt to uncertainty are important entrepreneurial characteristics. However, while concrete information about the environment may, in fact, be absent, causing uncertainty, we propose in our study that the entrepreneurs' processing capacity, particularly their marketing competency, may help them increasing the level of understanding about the environment and its potential effects, and deciding about the most adequate responses. Next section summarizes the main conclusions and discusses this particular topic.

14.3.3. Processing capacity and marketing decision making

Our qualitative results suggest that marketing competency, acquired either by formal or experiential and by observational learning, influences the ability of the entrepreneurs to acquire and

process important marketing decision making information that allows deciding and acting in a more purposive way. This hypothesis was tested in the quantitative study, confirming the importance of marketing competency to strengthen the association between higher levels of information and managerial marketing practices. Our results suggest that marketing competency can act upon the quality of information and, through this pathway, contribute for reducing uncertainty. This is consistent with Souder and Moenaert (1992), who distinguish between quantity and quality of information considered relevant to lower uncertainty. Whilst quantity refers to the amount of data obtained, quality has to do with the excellence with which they are addressed. Our results are consistent with the idea of subjective uncertainty. Matthews and Scott (1995) note that uncertainty is conceived by some authors as an objective, an external characteristic of the environment, but, ultimately, it is the way how entrepreneurs perceive their environment that determines the level of uncertainty they face.

Results indicate that causal rationality and managerial marketing practices are significantly associated to higher information availability and also to higher marketing competency, particularly acquired by formal education or training in the management area, which is consistent with literature (Dew et al., 2009a; Read et al., 2009a). In fact, we detected that even in situations where complete decision making information is not available, some entrepreneurs with background in management tend to privilege a causal reasoning. Only when they feel forced by the circumstances, are they willing to adopt a more experimental approach in practice, consistent with entrepreneurial marketing, which partially explains why we found mixed logics and practices. This conclusion adds to existing knowledge about effectuation, as we were not able to find previous empirical studies that analyze the relationship between decision making logics and reasoning and resulting practical actions.

The study shows that in more stable, less uncertain environments, possessing marketing knowledge allows deciding causally and implementing tested managerial marketing solutions, which results in the acceleration of the take-off and the growth of the new company. Marketing proficiency in context of information availability provides the needed processing capacity to search, select, interpret and use it for effective decision making. When information is scarce, however, as we already noted, marketing competency may be misleading, not allowing benefiting from the risk management strategies of effectuation and entrepreneurial marketing. Our study suggests, therefore, that marketing education and training would benefit from the incorporation of these decision making logic and practices in order to allow marketing proficient decision makers choosing the most fitted approach to the context.

On the other hand, if the context is information rich, less proficient entrepreneurs using an effectual rationality and implementing entrepreneurial marketing may be losing opportunities and incurring in inefficiencies, hindering the potential for thriving. Other researchers studying entrepreneurial marketing also agree that the risks associated to the entrepreneurial efforts may not be rewarded when variables such as market, competition, technological and regulatory environment are stable (Morris, Schindehutte & LaForge, 2002).

Therefore, our study indicates that both marketing competency that some effectuators lack and the effectual mindset that is absent for some marketing proficient decision makers are important to make meta-decisions (Wang, 2000), that is, to decide about how to decide and how to implement marketing decisions adjusted to different situations. Although it may not be possible to plan for contingencies and for opportunity creation, it is possible to plan to be prepared for contingencies and plan for other effectual features of marketing. Previous research showed that higher levels of existing knowledge, both about the market and the technology, may lead to more positive evaluations regarding the attractiveness of an opportunity (Wood & Williams, 2013). We believe that, if the marketing discipline is able to incorporate alternative ways of thinking and deciding, marketing proficient entrepreneurs will benefit in terms of the effects of their decisions.

Based on the conclusions of the study and on the identified influences and consequences of deciding and acting in particular ways, within higher and lower uncertainty contexts, we can find different marketing decision making situations, summarized in Table 14.1. As for the 'Missed Opportunities' quadrant of the suggested matrix, as previously noted, when uncertainty is low marketing decisions using effectuation and entrepreneurial marketing (EFF+EM) can be less effective and efficient. Not knowing what is effective requires experimentation and evolution is made on a trial-and-error basis, implying a learning process that takes time. This is acceptable when such knowledge does not exist, but it can be penalizing for new firms in terms of competitiveness under information abundance conditions. Additionally, the use of principles such as affordable loss, which works well when uncertainty is higher, allowing minimizing losses in case of wrong decisions, leads companies to invest less in some marketing activities, which may cause the loss of the leverage effect of marketing in a context of higher certainty. Another problem that may arise from using EFF+EM in more stable scenarios is the preference for bootstrapping funding (Harrison, Mason & Girling, 2004), which leads companies to diversify in the hopes of grabbing all the opportunities to monetize that arise. This situation can cause loss of focus, complexity costs, lack of strategic direction, and, again, involves loss of efficiency.

Entrepreneurs may use such an approach to marketing decision and implementation due to marketing ignorance, but also due to their own preferences in terms of management style, being the two situations very different. In fact, we found that some entrepreneurs like experimenting even under low levels of uncertainty, deciding with their hearts instead of with their heads and continuously trying 'new' solutions, even when they know that the 'old' ones work well. They are innovators, they have a typical effectual mindset and they push boundaries every day. Some entrepreneurs just rather act effectually due to their attitude towards the world, which can lead to certain choices even when they do not fit the conditions. They are not so compromised with attaining objectives, but rather with doing the path, creating the future in the process. In fact, previous research has shown that entrepreneurial behaviours and even definitions of entrepreneurial success are influenced by self-perceived identities (Stinchfield, Nelson & Wood, 2013). We found this profile associated to more experienced entrepreneurs, which partially confirms the idea that effectuation is a theory of entrepreneurial expertise (Read et al., 2009a; Sarasvathy, 2001).

The second quadrant of Table 14.1., referred to as 'Comfort Zone' describes the most stable position in terms of decision making, as the variables of the context are more or less predictable, allowing using a causal rationality and tested managerial marketing practices (CAU+MAN). Predictability comes from the availability of information and high processing capacity, which can be obtained from sources such as formal training or previous experience with the same business/market or product and learning with selected customers/partners. In such conditions, entrepreneurs should exploit the recognizable opportunities. It is important, however, that decision makers acquire capacity to decide in different contexts with different approaches, since it is very unlikely that such comfortable setting may be generalized for the whole decision space of the company.

The third situation, the 'Need to Cope', refers to the use of EFF+EM to deal with high levels of uncertainty. The benefits of this context fitting situation were already explained extensively earlier. Still, it is worthy to note that it is possible that the low information available to make decisions may not result from objective lack of data, but rather from the incapacity to acquire and process it. Therefore, we suggest that, even in this situation, entrepreneurs may benefit from increasing their marketing competency, since they are able to maintain their ability to decide effectually.

Table 14.1. Marketing decisions under uncertainty: problems, reasons and suggestions

		Level of uncertainty	
		Lower	Higher
Decision logics and marketing practices	Effectual/ Entrepreneurial Marketing EFF+EM	<p>1- Missed opportunities</p> <p>As the context is stable, causal/managerial marketing would allow exploiting more efficiently this discovery setting. So, inefficiencies are expected, hindering the company's development.</p> <p><i>Reasons:</i></p> <ul style="list-style-type: none"> - Lack of marketing competency. - Personal style. <p><i>Suggestions:</i></p> <ul style="list-style-type: none"> - Acquire marketing competency, develop information search and processing capacities. 	<p>3- Need to cope</p> <p>It is a way to lower the risks (affordable loss), take advantage of contingent opportunities (leverage contingencies), compensate for scarce resources and create value (partnerships).</p> <p><i>Reasons:</i></p> <ul style="list-style-type: none"> - Information for decision making is not available. - Typically, entrepreneurs lack marketing competency, but not necessarily. <p><i>Suggestions:</i></p> <ul style="list-style-type: none"> - Create marketing opportunities. - In some cases, uncertainty may be lowered if entrepreneurs gain marketing competency that allows finding inconspicuous sources of information.
	Causal/Managerial Marketing CAU+MAN	<p>2- Comfort zone</p> <p>The context allows some degree of predictability and entrepreneurs know how to use it. Known strategies and pathways can be implemented to accelerate growth and expand business.</p> <p><i>Reasons:</i></p> <ul style="list-style-type: none"> - Entrepreneurs are typically marketing proficient. <p><i>Suggestions:</i></p> <ul style="list-style-type: none"> - Discover and exploit marketing opportunities. - Gain effectual competences to adapt to different decision making contexts. 	<p>4- Misfit</p> <p>Highly risky position since prediction is very difficult and the chosen path to attain objectives might be wrong.</p> <p>Risky even when there is marketing expertise.</p> <p><i>Reasons:</i></p> <ul style="list-style-type: none"> - Entrepreneurs are taught to think within a causal rationality and practice managerial marketing. <p><i>Suggestions:</i></p> <ul style="list-style-type: none"> - Entrepreneurs should recycle their marketing knowledge to incorporate effectuation rationality and entrepreneurial marketing.

Finally, the 'Misfit' quadrant of Table 14.1. signals the area where wrong decisions may cost a lot. As previously explained, entrepreneurs taught to think causally and implement managerial marketing may commit to some paths, based on their predictions under conditions where predictions cannot be made. This situation can be exemplified by the case of classic funders financing and influencing decisions in very innovative businesses. We observed in our study that some entrepreneurs

may start their business with a causal mindset, typically resulting from the background training in management, being profoundly convinced of the benefits of such perspective, and change it only when they are forced by circumstances and, sometimes, only when their plans fail miserably.

In this sense, effectuation and entrepreneurial marketing may be regarded as consequences, resulting from an uncertain context and harsh conditions, but they can also be a cause, that is, a style, a mindset that is creative in nature and, therefore, creates newness and uncertainty themselves.

Thus, based on our results, we propose an entrepreneurial marketing outline as a **result of a decision making process under uncertainty, resulting on an emergent and contingent set of actions that have a different configuration from traditional planned marketing and that can be used by small new ventures and established firms alike to fit the circumstances.**

15. Contributions and limitations of the study

Although entrepreneurial marketing research is considered as being in an exciting stage of development, its domain is not completely outlined yet and it has not even been reached a consensual definition for the concept (Hills & Hultman, 2011). Thus, recommendations have been made that entrepreneurial marketing should evolve towards an application-oriented research, in order to develop marketing approaches tailored to the peculiarities of new firms (Kraus et al., 2012). Results of the present study offer several contributions to respond to such recommendations, hopefully helping developing entrepreneurial marketing theory and also offering suggestions for practice, for teaching and for policy making. However, as any scientific study, our research is also conditioned by some limitations. In this section, we highlight the most relevant contributions of the study and acknowledge its main limitations, suggesting how these limitations can translate into future research opportunities, when appropriate.

15.1. Contributions of the study

As it was its main intent, the research provides, first and foremost, a deeper understanding about the marketing practices implemented by entrepreneurs, contributing for advancing entrepreneurial marketing theory. We not only were able to describe an entrepreneurial marketing process, contrasting it with the managerial marketing process, but we also managed to understand why entrepreneurs follow such a different path from what is traditionally prescribed by marketing textbooks, by exploring the underlying decision making logics and cognitive conditions of the entrepreneur. We further contributed to the development of the field by exploring the relationship between entrepreneurial marketing practices and their effects for business development, which, to the best of our knowledge, has not yet been subject of scientific inquiry. Therefore, by placing entrepreneurial marketing within a context, our investigation achieved a multidimensional view of such practices, allowing expanding the knowledge about them.

Results of the study also contributed for the effectuation theory by linking the logics both to their conditions and effects. In fact, although there is a reasonable amount of empirical research pushing

effectuation forward (Ghorbel & Boujelbène, 2013), the circumstances under which each logic provides particular advantages and disadvantages were not yet clear, although recommendations to empirically explore such an issue were made by the very proponent of the theory more than one decade ago (Sarasvathy, 2001). Our study provided such contextualization to the effectuation theory. In so doing, we also confirmed that effectuation and causation are not mutually exclusive and that, whilst effectuation fits better creation settings, allowing lowering risks and forming opportunities, causation is adjusted to low uncertainty contexts, yielding higher efficiency and being more associated to growth.

Additionally, by addressing the relationship between effectuation and entrepreneurial marketing, we followed the recommendation of Perry, Chandler and Markova (2012), who consider that relationships between effectuation and other entrepreneurship and management theories should be established to advance the effectuation theory. Because of our methodological choice of mixed methods, combining qualitative and quantitative data, we were able not only to statistically verify such a relationship, but also to understand the conditions that bound logics and marketing practices, as well as some of the reasons why not all marketing decisions fit the same patterns.

Finally, we believe that our results also contributed for advancing the entrepreneurial decision making knowledge. Hoskisson et al. (2011) called attention to the fact that it is not clear whether entrepreneurs engage in different practices because they think differently, that is, due to their cognitions and decision-making approach, or because of the context or the demands of their entrepreneurial roles. The authors believe that more research on both aspects would help understanding the determinants of the entrepreneurial decision making. Our study rendered some insights for such discussion. Results suggest that marketing decision making and practices of entrepreneurs can be influenced by both their way of thinking and circumstances. We found that entrepreneurial marketing practices are associated with different logics of decision making and that they are imbued of particular cognitive strategies to make decisions. Furthermore, we identified some entrepreneurs for whom such intrinsic rationality is relatively stable and fairly disconnected from the context. However, most participant entrepreneurs showed an ability to change their decision making logics and marketing practices, in order to adapt to new contextual settings. Not only they mixed logics and practices over time, following the information macro cycle, but they conveniently used such mixing approach in more immediate decisions, following, for instance, a learning event. Our contribution is in line with some entrepreneurial cognition literature that sustains that we all share similar cognitive processes but entrepreneurs activate unique thinking processes because they face role demands requiring so (Baron, 1998).

Our research offered practical contributions, as well. Kraus et al. (2012) encouraged investigation on how small and new firms can apply marketing findings to increase their chances of success. We acknowledge that starting up a business, particularly in a creation setting (Alvarez & Barney, 2005), is difficult and there are high chances of failure, mainly due to the uncertainty associated to the introduction of new products and the creation of new markets (Tomala & Sénécal, 2004; O'Conner, Hendricks & Rice, 2002). Although we could not offer suggestions about how to completely avoid wrong marketing decisions, we gave indications about how to mitigate their impacts. The investigation showed that, under conditions of high uncertainty, the effectuation principles, associated to low cost and experimentalist marketing practices, may reduce such risks. On the other hand, we also offered indications that, when conditions allow, entrepreneurs may benefit from obtaining marketing competency to exploit opportunities, gain efficiency and speed up the company take-off. We found, however, that effectuators rarely hold marketing competency, whereas the ones who do tend to decide causally and implement managerial marketing, even under uncertainty. So, we think that being able to incorporate different decision making perspectives and gain marketing competency will allow entrepreneurs deciding how to make decisions in face of different contextual conditions. In other words, although entrepreneurs cannot control de future, we suggest that with more marketing knowledge, permeable to new perspectives, entrepreneurs may gain the power to control their marketing decision making process.

Another interesting result, that can serve entrepreneurs, is that limited resources, specifically those of a financial nature, do not have to always represent a liability. On the contrary, our results showed that abundance of resources is more beneficial under stability and when uncertainty is high, more than focusing on obtaining financial resources, entrepreneurs should focus on gathering information that would create the conditions under which higher investments can be made.

We offer an additional contribution to entrepreneurs by identifying the main marketing concerns that must have priority in their minds, particularly in the start-up phase. They are: the product and its different marketing functions; people, on which so many marketing achievements are based; and legitimation supported on proofs of value to earn the market trust.

We believe that the results from this study also have interesting implications in terms of marketing teaching. Like other authors, we consider that marketing teaching needs to reflect the differences between entrepreneurial and traditional marketing, since not in all circumstances entrepreneurs manage and decide according to textbooks (Carson, 1998). Hultman and Hills (2001)

also believe that current teaching content is better suited for large multinational bureaucratic organizational firms acting in stable business environments and it needs to be modified with less focus on rational analysis, functional thinking, and planning models. The authors highlight the fact that fundamental literature in basic marketing, principles of marketing and marketing management remains very much the same as in the 1960s. They state that «students of the new millennium are still exposed to the same marketing concepts as their teachers were in the 1960s and 70s» (Hultman & Hills, 2001, p. 50). As the authors note, some fundamental marketing 'truths' can be questioned, since several results from growing firms research show that they need different marketing. Kraus et al. (2012) also highlight that marketing education is strongly dominated by causal reasoning, suggesting that effectuation should be considered in this area, as well. Outside the marketing domain, it is also considered important to reorient education towards the development of an innovative mindset that allows coping with the uncertainty of the current times (Chell & Athayde, 2011). Our results are in line with such opinions, as thoroughly described.

Finally, in terms of contribution for policy makers, results suggest that institutional support to start-up companies must be much more differentiated than it currently is. Depending on the main conditions that constitute the specific context of entrepreneurial decision making, particularly referring to the cognitive conditions of entrepreneurs, different types of support should be provided. As noted before, not always financial support is beneficial and it can even be harmful. Supporters should assess each particular case, in order to find the stress areas of the new firm in terms of decision making conditions. In some cases, marketing competency and information seeking tools should be offered as a priority. Other resources could be privileged, such as access to networks; institutional certification that can prove the new company's capacity; support, being either technical, financial or otherwise, to specifically develop technical pilot tests and market tests; access to outlet platforms to showcase existing products, among others. In fact, entrepreneurship support institutions could provide a better service to some start-up companies by helping them finding, or even being, themselves, early adopters, assisting these companies in creating their clients' portfolio, than facilitating the access to financial resources that they may not know how to use, since often everything is being created, including the markets.

15.2. Limitations and future research

When conducting an analysis of the limitations and future research directions presented in 1,276 articles in management areas, Brutus, Aguinis and Wassmer (2013) confirmed that most of these limitations are rooted in the methodological choices made. Our study is no exception. In fact, the results of our study are necessarily bounded by the subjective nature of the chosen data collection method. This is not a limitation in itself, since qualitative studies, in particular, assume such characteristic. However, by using mix methods of data analysis, we quantitatively explored several relationships, but these results cannot be generalized, due to our methodological options of data collection. It is worthy to note, though, that we acknowledged such limitation from the beginning. Indeed, the study never intended to draw inferences from the quantitative results, only to explore the data from a different and complementary perspective. Moreover, it is unclear whether even quantitative data collection methods would guarantee generalizability. It is a recognized fact that external validity or lack of generalizability is the most pervasive limitation in entrepreneurship research, probably due to difficulties in access to data (Aguinis & Lawal, 2012). As Neergaard (2007) warned, and we confirmed, identifying the population from which to extract the sample in the field of entrepreneurship is difficult, since listings of entrepreneurial companies are, generally, not available. Actually, there is not a single agreed upon set of criteria to identify an entrepreneurial company, making the possibility of obtaining a representative sample rather difficult. Additionally, researchers have come to accept that every study involves some degree of subjectivity, even when quantitative methods are applied. As Johnson and Onwuegbuzie (2004) note, many subjective and intersubjective decisions are made throughout the quantitative research process, including decisions about what to study, the instruments that the researcher believes are able to measure what he/she views as the target construct; choices about particular items of measurement and tests, to name just a few.

It is safe to say, however, that, in qualitative studies, the subjectivity is higher. Aware of the limitations of our methodological choices, we consider that they were appropriate, given, among other reasons, the level of development of theory and the nature of our research questions and objectives, as explained in the Methodology Chapter. Even though recognizing that every qualitative study involves some level of interpretation and subjectivity inherent to the researcher (Armstrong et al., 1997), we were careful to assess the level of subjectivity in content interpretation and codification, by measuring the inter-coder agreement. Although there was not a 100% match in data interpretation between two

researchers, the level of agreement is considered adequate, which provides some guarantee for the quality of the data coding.

Another limitation of the study, also related to our methodological choices, is the fact that we used one single source of information within each company. In fact, triangulation of sources of information is recommended as one possible technique for enhancing the quality of qualitative analysis (Patton, 1999). We acknowledge that self-reported retrospective data may be subject of several memory biases. Some relevant information may be forgotten or not even noticed and, therefore, not stored in memory, while other may be added to fill the gaps of memory reconstruction (Tourangeau, 1999). Interviewing more than one person in each company would allow us obtaining a more accurate report of the decision making process details, not only as it is perceived by the main decision maker, but also by other participants in the process or by external observers. The option for interviewing only the entrepreneur who is the main responsible for marketing decisions was due to the fact it was difficult to involve several participants from the same company for various reasons. Firstly, because most decisions were found to be made by one single person and, therefore, no other informants could provide confirmatory data. Secondly, because, in the cases in which several persons participated in the decision processes, it was not always possible to interview more than one person due to time constraints and entrepreneur's schedule difficulties. Most participant companies are very small and one single person must assume several tasks, making their participation in this type of studies difficult. In fact, only in two cases more than one entrepreneur participated in the interview, allowing complementing the main interviewee recollections and ideas. The option for interviewing only one entrepreneur in each company, although not the ideal, was also made by other researchers following methodological procedures similar to ours (e.g. Chell & Pittaway, 1998). In order to mitigate the potential memory biases, we used a timeline during the interviewing process, as detailed in the Methodology Chapter, which we believe was helpful.

Concerning the results of the study, we also find some limitations, particularly regarding the validity of the constructs. We used the level of information and the level of marketing competency as proxies for the level of uncertainty. Our decision is based on the cognitive theory from which the research is drawn, which postulates that uncertainty is related to the human limited access to information, and limited processing capability (Simon, 1979, 1956, 1955; March, 1978). From such a view, uncertainty is always subjective, since it is linked to the cognitive conditions of the individual to access and interpret information. However, we cannot rule out that, from other theoretical perspectives,

other influences on the decision making process, such as the ones related with organizational and environmental conditions, may also help understanding the constraints of the entrepreneurial marketing decision making process and entrepreneurial marketing practices. It would be interesting to compare the influence of the objective and subjective level of uncertainty in marketing practices in future researches.

Our study is also limited concerning the operationalization of the construct 'effects on business development'. Although there are many references for the characterization of the impacts of management decisions, mainly related to the construct of business performance, we intended to unveil what is perceived by business development when it is assessed from the marketing impacts' point of view, from the perspective of the entrepreneurs. Typically, existing measures of entrepreneurial performance or success focus on financial indicators (see Murphy, Trailer & Hill, 1996 for a review). There is evidence, however, that there are several definitions of success, depending on the entrepreneurial behaviours with which entrepreneurs align their identities. Stinchfield, Nelson and Wood (2013), for instance, identified five entrepreneurial behaviours and only one is more closely linked with pursuing economic results. Some pursue efficiency, while others pursue the fulfilment of a vision or the implementation of particular practices. So, we intentionally let the concept open and permeable to entrepreneurs' interpretation to grasp its subjective meaning. If such an option allowed us, on the one hand, obtaining a more grounded concept of the effects on business development, it prevented us from obtaining more comparable data with previous studies about the effect of managerial marketing decisions on business performance.

Another measurement limitation is related to the fact that we characterized entrepreneurial marketing practices, as they were found in our study, by comparison with what reference textbooks describe and prescribe. We found textbook divergent practices, although fairly consistent with several previous contributions from entrepreneurial marketing literature, and convergent practices, and the two were compared within the same entrepreneurial reality. We think, however, that research on entrepreneurial marketing could benefit from comparing marketing practices in new entrepreneurial firms and in established firms. Additionally, as we suggest that both entrepreneurial and managerial marketing practices can be found in the two types of firms, depending on the circumstances, it would be worthy to assess whether the conditions that frame the two types of marketing practices are similar within the two realities and whether they are both related to the uncertainty level, in order to start

setting the contour for a more general theory of entrepreneurial marketing as marketing under uncertainty.

Results from our study also offer other indications for future research directions, pointing towards theoretical areas where further development is required (Brutus, Aguinis & Wassmer, 2013). One of our suggestions is that, under different conditions, different logics of decision making and different marketing practices lead to different effects for entrepreneurial firms. However, as discussed above, both the methodology and the constructs used do not allow drawing robust and generalizable conclusions about under which circumstances each logic and practice produces the best results for companies. Therefore, future studies should consider a more comprehensive set of effects and further explore the suggestions provided by our research. In particular, it would be interesting to know which logic and marketing perspective leads to better results or to more failures under similar levels of uncertainty, that is, comparability issues should be considered in future studies. This is relevant, since entrepreneurial marketing lacks measures of effectiveness and we consider that our results just started approaching this interesting research avenue.

We also believe that it will be relevant to assess to what extent holding a higher level of marketing competency, namely by formal training, may hinder the entrepreneurs' ability to think effectually and to implement entrepreneurial marketing actions, following the results of our study. One of our propositions is that acquiring marketing competency may always be positive, since it helps reducing uncertainty by increasing the information processing capacity. However, we also concluded that effectuation and entrepreneurial marketing, which are appropriate to uncertainty settings, may be warded off by such training. Further research is needed, therefore, to confirm, on the one hand, whether or not higher marketing proficiency helps lowering the perceived uncertainty and, on the other hand, whether it can work together with an effectual way of thinking to enhance the possibility of making context adjusted marketing decisions.

Our suggestion for context fitted marketing decisions implies, however, that entrepreneurs are able to diagnose the level of uncertainty to define which approach to use in a particular decision making situation. This can be difficult sometimes, since some uncertainties are, themselves, unknown. Although the idea of diagnosing unforeseeable factors is considered by some researchers as an oxymoron, Loch, Solt and Baily (2008) think that *a priori* identification of the type of uncertainty faced by a new venture is possible. The authors propose a framework, in which the overall problem of structuring the new venture is divided into sub problems and then knowledge gaps are identified. For

each problem areas, a qualitative assessment of knowledge gaps must be made and vulnerability to unforeseeable uncertainty must be assessed by the entrepreneur. We believe, however, that this area calls for deeper research in order to allow the development of practical, easy to use, diagnosing tools. It is possible that such a research area should be able to produce new analytical tools that are more useful for entrepreneurs than the ones that managerial marketing currently offers, which depend on information being available.

Diagnosing uncertainties means that entrepreneurs must be able to know what they know and what they do not know, in order to make more informed decisions. However, as controversial as this idea may be, the truth is that, sometimes, not knowing something and, even more importantly, not knowing a particular unknown, may permit entrepreneurs to act and create information to fill that knowledge gap. In fact, Wood and Williams (2013) found that, under some circumstances, more knowledge may lead to inaction. That occurs particularly when entrepreneurs use the worst-case-scenario rule to evaluate an opportunity, when knowledge may paralyze entrepreneurs. This idea also suggests further investigation to discover the levels of information and knowledge that would allow optimal entrepreneurial decisions and outputs.

Finally, and returning to the issue of what should be considered an optimal decision and an optimal output of entrepreneurial marketing, much investigation is still needed. In fact, we found in our study indications that entrepreneurial marketing decisions' impacts are less often connected with market growth or increasing sales than it could be expected. Other studies have suggested that entrepreneurship being as much a social as an economic phenomenon, other relevant outcomes of entrepreneurship, such as self-realization and broad societal impact, should be considered when assessing its results (Korsgaard & Anderson, 2011). Particularly, some authors suggest that researchers studying at the marketing/entrepreneurship interface should consider performance measures that go beyond the traditional growth indicators, considering the great diversity of the entrepreneurs' goals, suggesting also that change is a broader conceptualization than growth (Hansen & Eggers, 2010). We believe that this is a fascinating future development in the entrepreneurial marketing theory still needing much study and debate.

15.3. Final remarks

More than two decades ago, Achrol (1991) already acknowledged that the marketing environment had changed rapidly and that more accentuated changes and turbulence were expected in the decades to come. The author also noted that, despite the uneasiness and uncertainty about the role of marketing in strategic planning, marketing concepts remained the same. More and more critical voices are now highlighting the need for the academic discipline of marketing to adapt to the changing environment, for which links with entrepreneurship may be fruitful (Hultman & Hills, 2011). Our study was geared by the intent to contribute for deepening the understanding about entrepreneurial marketing in order to identify opportunities and avenues for the marketing discipline to evolve maintaining adherence with the practitioners' needs and scholars' concerns. We believe that our goals and research objectives were met and that the research offers interesting contributions. We are aware, however, that the impact of a study of this nature is necessarily limited to causing a small scratch on the immensity of knowledge there is to discover, create and transform.

We found, indeed, that marketing can benefit from incorporating new thinking and decision tools borrowed from the entrepreneurial realm. However, mainstream managerial marketing concepts and practices must not be abandoned, for that they maintain relevance and effectiveness in specific circumstances. We found that the decision context is dynamic, comprising different constraints that call for different marketing approaches. Results of the study provide strong evidence that marketing decisions are situation-dependent and that the best marketing decisions are those that fit the circumstances. We believe that practitioners would be better marketing decision makers if they acquire not only marketing competence, in terms of understanding the usefulness of marketing concepts and tools, but also the ability to judge about the relevance and adequacy of different marketing approaches under different circumstances.

VI.

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³ Authorship attributed to Stephen Brown. Alain Smithee was a pseudonym commonly used by film directors when they considered not having had control over their creative work.

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VII.





APPENDICES

Appendix 1: Participating companies

Company	Brief description	Demographics
 <p>Abyssal, S.A. [abyssal.eu]</p>	<p>Abyssal is dedicated to developing subsea navigation systems for remotely operated vehicles (ROVs). Its solution allows reducing the time and increasing the efficiency of subsea operations. The company is a spin-off from University of Porto located at the Marine Technology Cluster, in Leixões harbour (Porto, Portugal).</p> <p>The company is funded by the InovCapital-ACTec, a pre-seed venture fund focused on financing the proof-of-concept of tech-based high or medium growth projects.</p>	<p>Company: Foundation: 2010 Area: Software for navigation systems Location: Porto</p> <p>Interviewed entrepreneur: Position: Business development Background education area: Economy and MBA</p>
 <p>Amazing Ideas, Management Consulting, Unip. Lda. [amazingideas.pt]</p>	<p>The company offers consulting services in marketing and communication to SMEs and, particularly, to startups, both at the national and international levels.</p> <p>Amazing Ideas is focused primarily on the creative industries of fashion, design and architecture.</p>	<p>Company: Foundation: 2009 Area: Management consulting Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: CEO Background education area: Economy and Management</p>
 <p>Biomode, Biomolecular Determination, S.A.</p>	<p>Biomode is spin-off from University of Minho founded by four investigators from the department of Biological Engineering Centre of this University. The company develops genetic diagnosis tests based on innovative techniques.</p> <p>In 2011, Biomode was awarded the first prize in the 8th edition of the national contest BES Inovação in the category Natural Resources & Food. It was the first company to obtain funding from InovCapital-ACTec venture fund.</p>	<p>Company: Foundation: 2010 Area: Biotechnology Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: Co-founder Background education area: Biology</p>
 <p>Biotempo, Consultoria em Biotecnologia, Lda [biotempo.com]</p>	<p>Biotempo is an innovation focused biotechnology company with strong connections to both the academic and industrial fields. It is a University of Minho spin-off that develops high value technology transferable for the industry.</p> <p>The company offers industrial bioprocesses to produce ingredients for functional foods; services for dietary quality concerning nutritional balance, quality certification and health and safety; and other services such as microbiological analysis in wastewater.</p>	<p>Company: Foundation: 2002 Area: Biotechnology Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: Co-founder Background education area: Biological engineering</p>

Company	Brief description	Demographics
 <p>Bnml, Behavioral & Molecular Lab, Lda. [bnml.pt]</p>	<p>The company is a spin-off of the University of Minho located in campus. It is closely linked to the Health Sciences Research Institute (ICVS), which integrates the ICVS/3B's – a Government Associate Laboratory.</p> <p>BnML is science-based company, founded upon the specialization and extensive research activity applied to the evaluation of behavioral and neuromolecular effects of therapeutic compounds, using animal models for psychiatric and neurological diseases.</p> <p>The founding team was awarded several prizes, including the “Young Entrepreneur Prize 2013”, one of the oldest and most prestigious prizes in entrepreneurship in Portugal, promoted by the National Association of Young Entrepreneurs.</p>	<p>Company: Foundation: 2012 Area: Biotechnology and health Location: ECS – School of Health Sciences, University of Minho, Braga</p> <p>Interviewed entrepreneur: Position: co-founder/manager Background education area: Biology</p>
 <p>Bsolus - Business Solutions, Unip. Lda. [bsolus.pt]</p>	<p>Bsolus provides information management solutions for several business areas. The company's offer includes management software, e-commerce solutions, design, webdesign and webmarketing.</p> <p>Bsolus sells internally developed solutions and is a sales representative for international brands.</p>	<p>Company: Foundation: 2007 Area: Information Technologies Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Management Informatics</p>
 <p>Codevision, Software Engineering, Lda. [codevision.pt]</p>	<p>Codevision started as a company that intended to work on Near Field Communications. Due to an emergent opportunity, Codevision started developing information technology solutions for the education market. The company market includes all non-higher education institutions, both private and public, and training centers.</p> <p>It provides integrated information systems to address the specific needs of the education management process.</p>	<p>Company: Foundation: 2007 Area: Information systems Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Systems and Computer Engineering</p>
 <p>Critical Materials, S.A. [critical-materials.com]</p>	<p>The company develops solutions and products for critical applications of material systems and structures. Being an innovation oriented company, founded by University of Minho researchers; Critical Materials has developed a proprietary structural health monitoring and management system.</p> <p>Critical Materials provides services for key international players in areas such as aeronautics, space, defense and different types of critical infrastructures, from oil pipelines to high speed trains.</p>	<p>Company: Foundation: 2008 Area: Engineering Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Mechanical and Structural Engineering</p>



Company	Brief description	Demographics
 <p>Earboxwear, S.A. [earboxwear.com]</p>	<p>Earboxwear is a startup company created to market the EarBox concept, a street wear and techwear brand that combines design with music, by integrating speakers into its product range, which includes: t-shirts, sweat-shirts, jackets, dresses, vests and hooded scarfs. The products are in the sector of technical clothing, which is currently the fastest growing textile industry.</p> <p>The business idea was awarded with several prizes and the company is supported by the Investment Fund for Creative Industries managed by Invicta Angels - Business Angels Association.</p>	<p>Company: Foundation: 2011 Area: Technical Clothing Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder/ executive manager Background education area: Textile Engineering</p>
<p>Earth Essences, Lda.</p>	<p>Earth Essences is a spin-off of University of Minho dedicated to agricultural production, including spices and aromatic, medicinal and pharmaceutical plants. The company produces as well as transforms its products through dehydration processes and essential oils extraction.</p> <p>The company was founded by two University of Minho researchers maintaining a strong focus on research and development activities in the field of natural sciences and, in particular, agriculture.</p>	<p>Company: Foundation: 2012 Area: Biotechnology and Agroindustry Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder/ executive manager Background education area: Applied Biology</p>
 <p>Edigma, Lda [edigma.com]</p>	<p>Edigma is an innovation focused company, dedicated to developing interactive technologies, specialized in multi-touch, multi-sense and gesture interactivity. The company has headquarters in Braga, branches in Lisbon and Madrid, and develops reference projects in more than 80 countries around the world. Edigma works closely with university research and innovation centers.</p> <p>The company has been awarded with several prestigious prizes and recognitions. It was the only Portuguese company included the Red Herring final list to the annual election of the 100 most promising European companies in the technology sector.</p>	<p>Company: Foundation: 2000 Area: Digital Technologies Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Marketing</p>
 <p>Edit Value, Consultoria Empresarial, Lda. [editvalue.com]</p>	<p>Edit Value is a spin-off of University of Minho, operating in the area of management consulting. Among the offered services are: strategic studies, market studies, financial management, support to entrepreneurship and support in funding applications.</p> <p>The company also developed the project 'ENTRExplorer: Serious Game for Immersive Entrepreneurs' in partnership with other companies and public institutions, both national and international.</p> <p>Edit Value was granted the SME Leader award by IAPMEI - Support Office for Small and Medium Sized Enterprises and Innovation.</p>	<p>Company: Foundation: 2005 Area: Management consulting and business services Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Public Management and Marketing and Strategy</p>





Company	Brief description	Demographics
 <p>Eurotux Informática, S.A. [eurotux.com]</p>	<p>The company was born out of the Distributed Systems Group of University of Minho. All the administrators were professors at the university at the time the company was created. It is specialized on planning, integration and development of computer systems, with innovative and competitive offers in order to take advantage of data service infrastructures. Eurotux provides global solutions in intra-enterprise service network management, internet access and web hosting.</p> <p>The company was awarded the SME Excellence award for four consecutive years: 2009, 2010, 2011 and 2012. In 2011 and 2012 it was included in the ranking of Best Companies to Work in Portugal.</p>	<p>Company: Foundation: 2000 Area: Information systems Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Systems and Computer Engineering</p>
 <p>Exva, Experts in Video Analysis, Lda. [exva.pt]</p>	<p>The company is based on proprietary know-how developed at University of Minho during the PhD research of one of the founders and holds the academic spin-off label.</p> <p>Exva's offer incorporate technology with unique capabilities, allowing accurate motion detection, face detection and behavior analysis applied in areas such as video surveillance, domotics, gaming and marketing research. Exva also provides topographic analysis and a wide range of consulting and project development services.</p> <p>With a strong international focus from the inception, Exva is rapidly growing in foreign markets.</p>	<p>Company: Foundation: 2008 Area: Information systems and Engineering Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Economics</p>
 <p>Fermentum, Engenharia das Fermentações, Lda. [cervejalettra.pt]</p>	<p>Fermentum is a spin-off from University of Minho, based on scientific knowledge developed by two young researchers at the Biological Engineering department of the same university.</p> <p>The company offers several research and development services for the agri-food industry, but has focused predominantly in developing its own brand of artisan beer named Letra. The company is in the process of establishing a brewery, which will be opened to the general public who wants to taste and buy the products.</p> <p>The project is co-funded by the public program PRODER (<i>Programa de Desenvolvimento Rural</i>).</p>	<p>Company: Foundation: 2011 Area: Biotechnology and Beverages Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /manager Background education area: Biological engineering</p>
 <p>Designgen, Comunicação Visual, Lda. [gen.pt]</p>	<p>Gen Design Studio is dedicated to graphic development, product development, environment design and web design and illustration. The company develops projects and manages brands in Portugal, in some European countries such as France, Belgium, Netherlands and in United States of America. The areas of activity of the firm are communication and branding; corporate identity advertising, editorial design; space design, industrial design and Web Lab.</p>	<p>Company: Foundation: 2005 Area: Design, advertising, new media Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO</p>



Company	Brief description	Demographics
	<p>The company was elected as reference company by <i>Projecto Dinamizar</i>, sponsored by the Portuguese Trade and Services Confederation in 2007. Gen was also awarded several prizes and recognitions for its designs.</p>	<p>Background education area: Engineering</p>
 <p>Geojustiça, Soluções Geográficas de Apoio à Justiça, Lda. [geojustica.pt]</p>	<p>Geojustiça is another University of Minho spin-off, dedicated to offering highly specialized services regarding the collection, processing and interpretation of geographic information to support judicial and extra-judicial conflict resolution.</p> <p>The company combines the areas of geography and law to provide elements allowing supporting legal decisions involving geo-spatial issues. It maintains a strong research and development focus, aiming at contributing to the advancement of the 'Geography of Law' area.</p>	<p>Company: Foundation: 2010 Area: Technical Services Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Geography</p>
 <p>Great Insight Consulting, Lda. [gi-consulting.org]</p>	<p>The company offers business services and management consulting in areas, such as: strategy, marketing, finance, human resources, information systems and business process reengineering.</p> <p>More than a services provider, GI Consulting positions itself as an effective member of the customer's organization, by developing and implementing projects fully integrated in the client's dynamics.</p>	<p>Company: Foundation: 2011 Area: Management consulting and business services Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Management</p>
 <p>Group Buddies, Lda. [groupbuddies.com]</p>	<p>Group buddies is a start-up firm originally created by six friends, all of them students at university of Minho at the time. The team was involved in several entrepreneurship support programs, namely Idealab and <i>Laboratório de Empresas</i> promoted by TecMinho and the company remained incubated in the campus for a period of time.</p> <p>The company focuses on three main areas: corporate identity creation; web development, and web apps.</p>	<p>Company: Foundation: 2012 Area: Web development Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Informatics Engineering</p>
 <p>Hypercube – Filénio Produções Estereoscópicas 3D, Unip. Lda. [hypercube.pt]</p>	<p>Hypercube is specialized in the production of stereoscopic 3D content, both movies and printed images. It is the first Portuguese company specialized in this area, having been awarded in several entrepreneurship contests.</p> <p>The company is involved in several innovative projects, including the 3DLiveSurgey, which consists on services and products for 3D stereo visualization applied to surgical context.</p>	<p>Company: Foundation: 2010 Area: 3D Technologies Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Computer Graphics & Multimedia Engineering</p>

Company	Brief description	Demographics
 <p>iMobileMagic, Mobile Experiences, Lda. [imobilemagic.com]</p>	<p>iMobileMagic describes itself as a company that uses technology to create compelling and innovative consumer experiences on mobile devices worldwide. The company also offers solutions to telecom providers, such as Portugal Telecom and Vodafone.</p> <p>In the genesis of the company is the experience of one of the founders in Mobicomp, a startup company that was later acquired by Microsoft.</p>	<p>Company: Foundation: 2011 Area: Mobile applications Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Systems and Informatics Engineering</p>
 <p>Inno - Serviços Especializados em Veterinária, Lda. [inno.pt]</p>	<p>Inno is a leading Portuguese veterinary laboratory of clinical testing. Despite being in operation for just a few years, Inno is a reference laboratory specially conceived to support veterinary medicine.</p> <p>Although there are, today, several players offering competing services, the company offers the most comprehensive existing catalog of diagnostic tests.</p> <p>The main customers are veterinarians, and therefore, the company works primarily with pet hospitals, clinics, laboratories and other veterinary, but also with other animal care institutions such as natural parks and zoos, proving clinical testing for wildlife and captive animals.</p>	<p>Company: Foundation: 2007 Area: Biotechnology and Biochemistry Location: Braga</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Management</p>
 <p>iSurgical3D, Lda. [isurgical3d.com]</p>	<p>iSurgical3D, spin-off of the University of Minho, is dedicated to research, development and commercialization of customized prosthetics and orthotics, and medical devices to use in patients based on 3D technologies. Due to its distinctive technology, the company was awarded several innovation prizes.</p> <p>The company was born from a research project undertaken by researchers at the Life and Health Sciences Research Institute (ICVS), School of Health Sciences and the Departments of Mechanical and Industrial Electronics of University of Minho in collaboration with physicians at the Hospital of São João, Porto.</p>	<p>Company: Foundation: 2009 Area: Health instruments Location: Spinpark/ Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Electronic engineering</p>
 <p>Keep Solutions, Lda. [keep.pt]</p>	<p>KeepSolutions is a spin-off from University of Minho, dedicated to developing solutions for information management and digital conservation.</p> <p>The company offers a wide range of products and services to support the creation of archives, libraries and museums.</p> <p>Being a knowledge-based company, KeepSolutions is involved in R&D projects in partnership with both national and international renowned institutions.</p>	<p>Company: Foundation: 2008 Area: Information systems Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Informatics Engineering</p>


Company	Brief description	Demographics
 <p>Lab Tagz [labtagz.com]</p>	<p>The company intends to developed and sell an innovative and user-friendly way to manage laboratory equipment. Using a mobile platform, the solution gives the researcher an easy way to access relevant information about the equipment that he/she is using or needs to use.</p> <p>LabTagz was awarded The SAGE Prize given to the most outstanding start-ups that participated in the Beta-start program and the National Association of Young Entrepreneurs prize in the <i>Arrisca.C</i> competition.</p>	<p>Company: Foundation: 2012 Area: Information systems Location: Lisbon</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Biochemistry and Biomedical Sciences</p>
 <p>Lincis - Soluções Integradas para Sistemas de Informação, Lda. [lincis.com]</p>	<p>The company was born following a project of IDITE-Minho (<i>Instituto de Desenvolvimento e Inovação Tecnológica do Minho</i>), becoming a spin-off of this institution where the founder and manager worked for eight years before. Due to its innovative nature, Lincis early received the NEST status (<i>Novas Empresas de Suporte Tecnológico</i>) a program managed by ADI (<i>Agência de Inovação</i>) intended to translate to the market applied investigation developed within the national scientific and technological system.</p> <p>Today, Lincis develops products and solutions in the areas of information technology, communications and electronics.</p>	<p>Company: Foundation: 2002 Area: Information Technologies and Electronics Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Electronic Engineering</p>
 <p>Metro Cúbico Digital - 3D Works, Lda [metrocubicodigital.com]</p>	<p>The firm offers high quality 3D images and animations, which allow obtaining a virtual hyper-realistic preview of the final result of projects in different industries, such as the building, furniture and advertising industry.</p> <p>The company has customers in several European countries, such as Germany, Sweden, United Kingdom, Switzerland, and also in Brazil and some African countries. It also developed work for renowned architects, such as Alvaro Siza Vieira and Eduardo Souto de Moura. Metro Cúbico won several prestigious awards in its field.</p>	<p>Company: Foundation: 2011 Area: Digital Technologies Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder Background education area: Architecture</p>
 <p>Mezzolab, Lda. [mezzolab.com]</p>	<p>The company was created as a spin out of another company, where the area of software development, grew laterally, justifying the creation of an autonomous organization.</p> <p>Mezzolab offers graphic and web design, branding, mobile apps, motion design and video services globally. Its portfolio includes several reputed clients, both national and international, such as Oliveira da Serra and Dan Ariely.</p>	<p>Company: Foundation: 2012 Area: Web development Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder / Marketer Background education area: Management</p>

Company	Brief description	Demographics
 <p>My Power, Unip. Lda. [my-power.pt]</p>	<p>My Power is a University of Minho's spin-off. It was formally registered as a company in early 2012, but the entrepreneur has been working in the project individually since 2008. It works in the automobile sector, providing technical services, engineering, consulting, insurance valuations and motor reprogramming.</p> <p>The company started from a personal passion of the entrepreneur about cars, complemented by his know how as a mechanical engineer, developed during his collaboration in research projects at the University of Minho.</p>	<p>Company: Foundation: 2008 Area: Mechanical Engineering Location: Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Mechanical Engineering</p>
 <p>Nabia Solutions, S.A. [nabiasolutions.com]</p>	<p>Nabia Solutions started by offering trustworthy mobile services for banking and government organizations. In 2010 the company opened an office in Dubai in order to promote its products in the Middle East region. From there Nabia serves a leading wireless services provider with commercial branches in seven countries across the Middle East. BPI Bank and the Portuguese Government are two of its strongest Portuguese customers.</p> <p>Nabia co-founders have previously worked at MobiComp, an Information and Technology company with focus on Mobile Backup Solutions, which was acquired by Microsoft Corporation in 2008.</p>	<p>Company: Foundation: 2008 Area: Information systems Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Systems and Informatics Engineering</p>
 <p>New Textiles, Lda. [newtextiles.pt]</p>	<p>New Textiles is a technology-based startup, holding the University of Minho spin-off label. The company designs and develops technical and functional textile products, particularly targeting the health segment. It manages the brand Skintoskin that offers biofunctional clothing.</p> <p>New Textiles exports more than 60% of its production to Spain and intends to enter the Swedish, English and Czech markets in the short run, while continuing to look for new markets to expand its business.</p> <p>In partnership with University of Minho, New Textiles was distinguished with the second prize in the category of Support to Business Internationalization, in the Portuguese phase of the European Enterprise Awards 2011.</p>	<p>Company: Foundation: 2008 Area: Functional textiles Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Economy</p>
 <p>Oficina de Competências, Unipessoal, Lda. [oficinadecompetencias.pt]</p>	<p>The company offers human resources management services, helping companies organizing and potentiating their human capital.</p> <p>Oficina de Competências positions itself as a strategic outsourcing partner for all organizational processes regarding people. The company's offer includes services such as: recruitment and selection processes using different methodologies; skills development, career management and layoff processes management.</p>	<p>Company: Foundation: Area: Business services Location: IEMinho - Vila Verde</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Psychology</p>

Company	Brief description	Demographics
 <p>Pangeo [pangeo.pt]</p>	<p>Pangeo is an academic spin-off located in campus at the Earth Sciences Centre of University of Minho. Its activity areas are: environmental education, scientific tourism, spatial planning and a variety of technical services closely linked to research and use of technology related to the Geosciences and Environment.</p> <p>The company is currently involved in an investigation project called FIREMAP that is developing a system that allows the acquisition of high-resolution geo-referenced and structured images of forest areas in order to characterize burnt areas and help prevent future fires.</p>	<p>Company: Foundation: 2007 Area: Geosciences Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder Background education area: Geology</p>
 <p>Paradigma, Sistemas Informáticos, Lda. [paradigma.pt]</p>	<p>Paradigma is an information technology company, providing information management services to other companies.</p> <p>More recently, the company added mobile applications to its offer. Among its products is Keep an Eye, an app that allows monitoring with the smartphone any movement happening in a paired computer that can be left alone for a time.</p>	<p>Company: Foundation: 2008 Area: Information systems Location: Braga</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Informatics Engineering</p>
 <p>Sar, Soluções de Automação e Robótica, Lda. [sarobotica.pt]</p>	<p>The company was founded in 2006, after a team of university researchers won the award 'BES Inovação' for their innovative project of an omnidirectional wheelchair. Today, SAR Automação offers technological solutions, being its core business the delivery of engineering specific solutions combining electronics, automation, robotics and computing.</p> <p>SAR has a robotics online store (botnroll.com) where educational robots and components are available. Bot'n Roll is a co-promotor of the RoboParty (roboparty.org), an educational event that teaches how to build robots for a period of 3 days and 2 nights nonstop.</p> <p>SAR became an official University of Minho Spin-off in 2007, following the common interests in R&D.</p>	<p>Company: Foundation: 2006 Area: Electronic engineering Location: Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder Background education area: Electronic engineering</p>
 <p>Scytale, Lda. [scytale.pt]</p>	<p>Scytale was founded by a group of engineers graduated at University of Minho, specialized in computing and communications, particularly computer security and multi-platform software development areas.</p> <p>The company maintains its connection with the University, which allows keeping ahead in terms of technology development and commercialization.</p>	<p>Company: Foundation: 2011 Area: Information systems Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /co-manager Informatics Engineering</p>

Company	Brief description	Demographics
 <p>Seegno, Lda. [seegno.com]</p>	<p>Seegno is a design and web development company, specialized in solutions involving technology, design and creativity.</p> <p>The company develops projects in collaboration with international partners including for web applications, mobile applications, graphic identity, design and online strategies.</p>	<p>Company: Foundation: 2008 Area: Design and web development Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Informatics Engineering</p>
 <p>Silicolife, Lda. [silicolife.pt]</p>	<p>The company is dedicated to developing computational solutions for Industrial Biotechnology applications. Silicolife services allow customers designing optimized microbial strains for the cost-effective production of compounds in areas such as biofuels, chemicals, food ingredients or biopolymers. Among its customers, there are several leading chemical, materials and synthetic biology international companies.</p> <p>Silicolife maintains a strong focus on research and development and has projects in partnership with key industry players. Its innovative profile has already deserved several recognitions and prizes.</p>	<p>Company: Foundation: 2010 Area: Bio-informatics Location: Spinpark/Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Informatics Engineering and Bioinformatics.</p>
 <p>Simbiente, Environmental Engineering and Management, Lda. [simbiente.com]</p>	<p>Simbiente is an innovation focused company, offering environmental engineering and biotechnology. The company is a spin-off of University of Minho, resulting from research developed at the Department of Biological Engineering of this university.</p> <p>Simbiente offers products and services in four main areas: sustainability and strategic planning; environmental and energy technologies; ecosystems management and valorization; environmental training and communication.</p> <p>Two other companies integrate the Simbiente group: Simbiente Azores and Simbiente Chile.</p>	<p>Company: Foundation: 2004 Area: Environmental engineering Location: Spinpark/Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Environmental Engineering.</p>
 <p>Sinerggeo, Soluções Aplicadas em Geologia, Hidrogeologia e Ambiente, Lda. [sinerggeo.pt]</p>	<p>The company is a spin-off from University of Minho, founded by Geologists. It offers services and implementation of projects in the geology, hydrogeology, geophysics and geotechnics areas, among which are: video inspection of groundwater extractions; testing of groundwater extractions flow; technical verifications; studies of interference between groundwater extractions; geological and geotechnical studies and geophysical prospection.</p> <p>Sinerggeo has a strong research, development and innovation (RDI) orientation which is regarded as a means to grow and develop the business, through the offering of new services.</p>	<p>Company: Foundation: 2006 Area: Hydrogeology Location: IEMinho - Vila Verde</p> <p>Interviewed entrepreneur: Position: co-founder /manager Background education area: Geology</p>

Company	Brief description	Demographics
 <p>Sketchpixel, Multimedia & Visual Effects, Lda. [sketchpixel.com]</p>	<p>SketchPixel develops computer graphics and 3D studio solutions for different applications such as advertising, architecture, real estate and gaming. The company also provides holographic solutions, augmented reality, multi-touch interactive solutions, projection mapping and mobile applications.</p> <p>Besides serving the Portuguese market, SketchPixel also operates in Spain, France, Angola and Brazil.</p>	<p>Company: Foundation: 2008 Area: Multimedia technologies Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Digital Arts and Multimedia</p>
 <p>Soft Institute, Informática e Serviços, Lda. [soft-institute.com]</p>	<p>The company was launched in 1997 as an informatics school for children. The current business resulted from the restructuring of the company in 2009, with the focus changing from informatics education to software development. The company started by developing a proprietary informatics application for small and medium-sized companies and decided later to be a partner for a larger software house.</p> <p>The company maintains today two different areas: the development area, that creates applications on demand and the partners' area.</p>	<p>Company: Foundation: 2009 Area: Informatics Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Information Technologies</p>
 <p>Somatica, Materials & Solutions, Lda. [somatica.pt]</p>	<p>Somatica is a technology-based company dedicated to develop and sell smart materials. The company was born in 2007 within the Center of Physics of University of Minho, after a team of researchers participated in the Technological Entrepreneurship Program – Cohitec, promoted by Cotec Portugal.</p> <p>Currently, the company is mainly focused on two areas: research and development of electroactive materials and man-machine interface systems.</p>	<p>Company: Foundation: 2007 Area: Electronics Location: Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Physics and Materials Engineering</p>
 <p>Stemmatters, Biotecnologia e Medicina Regenerativa, S.A. [stematters.com]</p>	<p>Stemmatters is a spin-off of the 3B's Research Group (biomaterials biodegradables and biomimetics). The company is highly research oriented, developing tissue engineering and regenerative medicine solutions.</p> <p>Particularly, Stemmatters focuses on natural derived biomaterials, isolation and manipulation of hematopoietic and mesenchymal stem cells and tissue engineering. The company also has a unit for isolating, processing and storing human cells.</p> <p>Stemmatters is implementing several therapeutic development projects for applications such as: cartilage repair, osteoarthritis management and spinal cord injury repair.</p>	<p>Company: Foundation: 2007 Area: Biotechnology Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Materials engineering and Biomedical Engineering.</p>

Company	Brief description	Demographics
<p>SUCCESS GADGET®</p> <p>Success Gadget, Nanotecnologia e Novos Materiais, Lda.</p> <p>[success-gadget.com]</p>	<p>The company combines know how from nanotechnology, biotechnology, textiles and health areas to develop biofunctional textile products that sells to several European, South American, Asian and African markets.</p> <p>Some of its products are the Refresh CoolTouch technology for refreshing sportswear; the NOcellulite, a cosmetic solution applied to clothing, the solutions NOYellow Fever, NOMalaria, NODengue, consisting in textiles with mosquito repellent properties; and Medical Care, consisting in biofunctional textiles.</p>	<p>Company: Foundation: 2010 Area: Functional textiles Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Textiles Engineering</p>
 <p>Texonline, Unip. Lda.</p> <p>[texonline.pt]</p>	<p>Tex Online offers technical support, originally designed for the textile and clothing industry, in areas such as: new product development, production management and optimization, nonconforming product recovery and purchasing and supply process management. The company also provides customized management support to leverage productivity and competitiveness and training mainly supported in e-learning platforms.</p> <p>More recently, the company started offering also solutions for laboratories, such as support for accreditation/certification processes, equipment management plans, among others.</p>	<p>Company: Foundation: 2012 Area: Technical consultancy Location: Avepark - Guimarães</p> <p>Interviewed entrepreneur: Position: founder /CEO Background education area: Textile Chemistry and Industrial Engineering</p>
 <p>Ubisign, Tecnologias de Informação, Lda.</p> <p>[ubisign.com]</p>	<p>Ubisign focus on developing solutions for professional digital signage projects. The company's technology sits at the intersection of digital media, marketing, infotainment and mobile devices to create value-added interactive location-based services. Retail, hospitality, restaurant, healthcare, education and financial institutions and private companies are Ubisign's main target markets.</p> <p>Ubisign maintains a close collaboration with University of Minho, particularly its Mobile and Ubiquitous Systems Group and is an active associate of the Computer Graphics Centre, a member of the INI-Graphics Net.</p>	<p>Company: Foundation: 2005 Area: Information technologies Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Information Systems</p>
 <p>Venture Catalysts, Lda.</p> <p>[noniusgroup.com]</p>	<p>The company started from the confluence of wills and skills of five colleagues that identified a business opportunity in the need of successfully transferring new technologies to the market. After attending the Cohitec program, promoted by Cotec Portugal, the founders' team refined a methodology to develop technology-based businesses.</p> <p>Located at the Science and Technology Park of University of Porto, Venture Catalysts is in direct contact with several kinds of science-based companies, which allow better understanding their needs and challenges.</p>	<p>Company: Foundation: 2011 Area: Business consulting Location: UPTEC - Porto</p> <p>Interviewed entrepreneur: Position: co-founder / managing partner Background education area: Biological Engineering and MBA</p>

Company	Brief description	Demographics
 <p>Vinalia - Soluções de Biotecnologia para a Vitivinicultura, Lda. [vinalia.com.pt]</p>	<p>Vinalia is an academic spin-off of University of Minho. The company has a strong focus on investigation and development and is dedicated to sell know-how and science (innovation) to the wine industry. Currently, Vinalia is involved in several research and development projects, including supporting PhD and Master students in the areas of microbiology and characterization and chemical analysis.</p> <p>Complementary, services such as training courses on wine tasting, basics of wine microbiology analysis and vinification technology and also expert consulting and chemical and physical analysis compose the portfolio of the company's services.</p>	<p>Company: Foundation: 2006 Area: Biotechnology Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Chemistry and Oenology</p>
 <p>Visionspace Technologies, Lda. [visionspace.com]</p>	<p>The company was founded by two engineers, following their work experiences at the European Space Agency - ESA, in 2007 and 2008. Later, another partner joined the team.</p> <p>The company began by creating software exclusively for ESA, but then they started to expand the market by offering solutions to other core markets of security and independent software verification and validation. The company has currently its headquarters in Portugal and an office in Germany.</p>	<p>Company: Foundation: 2010 Area: Information Systems Location: Matosinhos</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Electronic Engineering and Telecommunications</p>
 <p>Weadapt - Inclusive Design and Engineering Solutions, Lda. [weadapt.com]</p>	<p>Weadapt offers clothes, home fabrics, bed covers, cushions and mattresses that can be used to monitor and treat disabled and dependent people. All the company's products and services result from scientific R&D projects with a close collaboration with specialized associations for disability, rehabilitation centers, hospitals, companies and other partners.</p> <p>Weadapt commercializes the following brands and products: FashionMe - innovative and functional ready-to-wear and made-to-measure clothing; BodyMe - physical reconstitution devices; and SenseMe - integration of electronic devices in textiles/polymers to achieve rehabilitation functions.</p> <p>The company's innovativeness has been recognized through several prizes and awards.</p>	<p>Company: Foundation: 2008 Area: Functional clothing Location: Braga</p> <p>Interviewed entrepreneur: Position: co-founder /CEO Background education area: Textile engineering</p>

Appendix 2: Interview guide

Good morning/afternoon

I am conducting my PhD thesis under the supervision of Professor Mino Farhangmehr and Professor José Carlos Pinho from University of Minho. I am aware that making decisions to run and develop a new and innovative firm is very difficult, due to great uncertainty and other particular conditions. So, I am interested in understanding your decision making process and its influences and outputs.

Being able to incorporate your knowledge and experience about this theme will be very important to my investigation.

All the information you'll give me will be absolutely confidential, which means that it will never be related to your name. Any information that may identify you or your firm will be omitted.

A brief description of the activity of your firm and some demographic data will be included in the thesis as an appendix, but they are not in any way linked to the content of our conversation.

If you have any doubt, feel free to ask. You can also stop any time during the interview if you have any question.

- 1- I would like you to think about the development of your business, since you first had the idea until today. Can you identify **situations/events** that had a significant **positive or negative impact** on the development of the business? Can you describe what happened?

Probe: It can be something as simple as 'having gone to a conference and meeting a very important customer' or 'having accepted an invitation to participate in a joint research project that that helped to create a very good product'. It can also be something more planned such as 'making an advertising campaign' or 'changing facilities'.

- 1.1. What lead to this decision (why did you make this decision)?

Probe: did you have any external constraints, such as resources? Did you just feel that it was the best?

- 1.2. How did you make this decision? (people involved, timing, planning, criteria that were considered e.g. loss minimization or profit maximization)

Probe: was this decision made to meet your business goals or you just thought it could be a good opportunity? Were you able to anticipate the results of the decision? In case of things didn't go as anticipated, how did you deal with the situation?

1.3. Can you give me more details about how you implemented this decision and how your business routine was affected by it?

Probe: How did you incorporate the results of the decision in your business management? How was the daily life of the business affected by them (e.g. the product was adapted, more segments were added; information was used to something else, more partners came onboard, created new markets, the way you deal with customers changed?)

2- Can we focus now on the effect that the decision had on your business development? Why do you consider that decision had positive/negative impact?

Probe: For instance, your customers' base grew; your company gained notoriety... How did that reflect on business results? Or resources were wasted unnecessarily; reputation was jeopardized, lost customers to competitors...

2.1. What do you consider to be a positive impact on business development? And a negative one?

2.2. Would you do anything differently now to produce better or even better business results in the same circumstances? What did you learn?

3- In what phase of your business development did it happen?

Probe: In the beginning, in the growth phase... do you think that your decision would have different effects if your business were on a different phase of development?

4. Do you wish to add something else? Feel free to explore any topic of our conversation.

Classification questions:

- Company (industry, age, number of employees, turnover).
- Level of innovation of business model, products, processes (radical, incremental, me too)
- Business performance (subjective opinion about how the company is performing relatively to a) what was expected; b) competitors).
- Interviewee (position in the company, background education, age, previous experience, marketing training).

Appendix 4: Qualitative data codebook

