Differences in Business Model Innovation

A challenges' perspective

Alessandro Agostini

Management of Innovation and Business Development, 30 credits

Halmstad 2014-06-18
Acknowledgements

This work marks the conclusion of the Master’s Programme. As the name implies, innovation has been one of the recurrent topic throughout the course. For this reason, I wanted to incorporate an element of newness in the final work, trying order to push forward the knowledge in a particular area. In the first year's thesis, I focused on the field of Business Intelligence (BI), while for the final work I decided to explore Business Model Innovation (BMI), which gained substantial popularity in recent times. As interesting as the name might sound, business model innovation is still at its infancy and the academic research has yet to produce meaningful and long-lasting results. This has generated sufficient curiosity to persuade myself to embark on this path, that was somewhat blurry at the beginning, with multiple possibilities and an unclear direction. Indeed, this study was initially focussed on researching the change initiatives that are more likely to lead towards business model innovation. Nonetheless, the limited resources and time contraints have redirected the attention to a different scope. Having said that, I really enjoyed the whole process, arguing and debating with my supervisor, let alone with the classmates. I learnt priceless lessons that will stay with me forever. I sincerely hope that the outcomes of this thesis will be helpful both in providing useful insights to practitioners and in advancing our understanding of the business model innovation domain.

Finally, I would wish to extend my deepest thanks to the following people:

- Henrik and Jonas, the supervisor and examiner, for tutoring and supporting throughout the process;
- The classmates who gave me valuable suggestions during the seminars and the class discussion;
- All the companies that took the time to participate in this study. Without them it would have not been possible;
- My opponents, whose constructive feedbacks helped me to improve the quality of the study;
Abstract

Purpose – This paper explores the most common challenges that organizations confront during the process of innovating the business model. It also proposes a new framework to distinguish different types of business model innovation according to the degree of novelty.

Design/methodology/approach – The paper draws on previous studies on the realm of business model and business model innovation, as well as it integrates basic insights on the challenges faced by managers. The frameworks developed guided the empirical investigation, constituted of a multi-cases study with five different organizations.

Findings – Overall, the study confirms the difficulties of analyzing business model innovation in general terms, given its complexity and multidisciplinarity. More specifically, this thesis present three findings, which represent the most significant challenges of the business model innovation process: 1) Deciding upfront how the new business model will integrate into the existing structure of the company; 2) creating a proper trial-and-error approach for business model innovation and 3) acknowledging the failures. An additional contribution is also offered by the Business Model Innovation Map.

Practical implications – The business model map could serve as a basis for developing a management tool to evaluate the impact of specific innovation to a firm’s business model. Moreover, managers are encouraged to consider the notion of risk when embarking on business model innovation projects. By focusing on the management of the controllable risks, managers can increase the likelihood of achieving successful outcomes.

Originality/value – The paper makes two main contributions: first, it offers a new perspective on how to categorize business model innovations through the Business Model Innovation Map, which distinguishes and specifies different types of business model innovation according to their degree of novelty. Second, it introduces the notion of risk in dealing with business model innovation, focusing on the parts that are more likely to be governable by managers.

Keywords – Business model, Business model innovation, Challenges, Degree of novelty, Innovation,
# Table of Contents

1 **Introduction** .................................................................................................................. 1
   1.1 Background .................................................................................................................. 1
   1.2 Problem Discussion....................................................................................................... 3
   1.3 Purpose ....................................................................................................................... 5
   1.4 Aim and Contribution ................................................................................................. 5
   1.5 Chapter Layout ........................................................................................................... 6

2 **The Business Model - Theoretical Evolution** ............................................................... 7
   2.1 Evolution of the Business Model Concept .................................................................... 7
   2.2 Business Model: Towards a Unified Perspective ......................................................... 8
   2.3 Latest Thinking on Business Model ............................................................................ 9
   2.4 Definition and Representation of a Business Model .................................................. 10
   2.5 Johnson's Business Model Framework ....................................................................... 11

3 **Theoretical framework** .................................................................................................. 12
   3.1 Business Model Innovation ......................................................................................... 12
   3.2 First Step: Business Model Innovation Map .............................................................. 14
      3.2.1 Business Model Extension, Business Model Revision and Business Model Transformation ........................................... 17
   3.3 Second Step: the Challenges ....................................................................................... 21
      3.3.1 Process Challenges ............................................................................................. 22
      3.3.2 People Challenges ............................................................................................. 24
      3.3.3 Strategic Challenges .......................................................................................... 25

4 **Research Methodology** .................................................................................................. 26
   4.1 Research Approach ..................................................................................................... 26
   4.2 Research Strategy ....................................................................................................... 27
   4.3 Data Collection .......................................................................................................... 27
   4.4 Literature Review: Method ....................................................................................... 29
   4.5 Sample Selection ....................................................................................................... 30
   4.6 Evaluation of Research Methods ................................................................................ 31
   4.7 Final Remark ............................................................................................................. 32

5 **Empirical Data** .............................................................................................................. 33
   5.1 Bit4id .......................................................................................................................... 34
   5.2 Tylö ............................................................................................................................ 39
   5.3 Höganäs ....................................................................................................................... 48
   5.4 Beople ........................................................................................................................ 55
   5.5 The Boston Consulting Group .................................................................................... 58
6 Findings and Discussion

6.1 Findings

6.1.1 Analysis of the Challenges: Tylö, Bit4id and Höganäs

6.1.2 Analysis of the Challenges: The Two Advisory Firms BCG and Beople

6.1.3 The Most Salient Findings from the Five Case Studies

6.2 Reflection on the Theoretical Literature

6.2.1 Consideration on the Challenges’ Framework: Does Strategy, Process and People Represent a Good Categorization?

6.2.2 Business Model Innovation: An Industrial Perspective

6.3 Six-Steps model

6.4 The Business Model Innovation Map

7 Conclusions

7.1 Managerial Implications

7.2 Theoretical Implications and Further Research

7.3 Limitations

8 Bibliography

9. Appendix - Interview guide
Table of Figures

List of Figures
Figure 1 - Chapter Roadmap ................................................................. 13
Figure 2 - Business Model Innovation Map (Adapted from Abernathy & Clark's
transilience map (1985)) ................................................................. 15
Figure 3 - Interview decision map ......................................................... 28
Figure 4 - Bit4id placing in the business model innovation map .............. 37
Figure 5 - Tylö distribution and sales network ........................................ 42
Figure 6 - Tylö placing in the business model innovation map .................. 43
Figure 7 - Höganäs value chain (Höganäs annual report) ......................... 50
Figure 8 - Höganäs placing in the business model innovation map .......... 51
Figure 9 - Systematic and Non-Systematic Risk. Adapted from Sharpe's
timey (1964) ........................................................................... 71

List of Tables
Table 1 - Bayer business model ............................................................. 18
Table 2 - Dell business model ............................................................... 19
Table 3 - Amazon business model .......................................................... 20
Table 4 - Ryanair business model ............................................................ 21
Table 5 - Interviewees' information ....................................................... 31
Table 6 - Summary of the findings ......................................................... 65
1. Introduction

In this chapter, the background, problem and purpose of the current research are discussed.

1.1 Background

During 1999 and the first part of 2000, Procter & Gamble (P&G) missed a number of consecutive quarterly earnings' forecasts, causing its stock to plunge from more than US$ 110 per share to half that amount in less than half a year. Durk Jager, then P&G's CEO (Chief Executive Officer), departed. The firm's strategy of innovating from within was not capable anymore of sustaining sufficient levels of organic growth. The R&D (Research & Development) productivity stagnated and talents were running away in search of a better future.

In 2000, Procter & Gamble embarked on a strategic shift, started by the newly appointed CEO: A.G. Lafley. This propelled the company to the top of its industry in few years. Procter & Gamble has rejuvenated its growth through a program called Connect and Develop, which licenses or acquires products from other companies and distribute them in the market as P&G brands. This shift was not only a matter of product innovation. Lafley was able to totally redefine the way P&G employees thought about an innovation, and the company built a groundbreaking open business model that combined internal and external actors. This success story is well known; what is less well known are all the stories about failures of innovating the business model. For example, Kodak was the first company to introduce the digital camera, but it failed to innovate the business model to avoid cannibalizing its own high-margin film business. So why did P&G, rather than Kodak, succeed? Finding an answer is not easy. In hindsight, P&G was able to identify promising ideas throughout its world network and combined them with a great business model characterized by outstanding R&D, manufacturing and purchasing capabilities (Huston & Sakkab, 2006). Apparently, managing the business model is critically important.

Many of us recall the long-lasting successes of companies such as Exxon, Coca Cola, Boeing and AT&T, which have been thriving for many decades. Yet, the majority of companies have disappeared throughout the years, either taken over by more successful competitors or significantly downsized due to their inability to continuously innovate (Cappelli & Hamori, 2005). If we compare the ranking of the 100 biggest companies in the world, only 21% of the companies in the 2013 Fortune 100 were also on the 1980 list. This implies that remaining at the top of one's industry is increasingly tougher (Casadesus-Masanell & Zhu, 2012).

There is a rising need for firms to respond to the markets' needs by quickly develop innovative products, but internal R&D alone may not be sufficient to keep up with the pace of technological innovation. Moreover, technological innovation itself does not cater any value (Chesbrough, 2010; Teece, 2010). New technologies alone are not sufficient to change paradigms of production and consumption systems (Boons & Lüdeke-Freund, 2012; Teece, 2010) and, with increasingly shorter product life cycles, even great technologies can no longer be relied upon to capture a satisfactory return before they become commoditized (Amit et al., 2011; Chesbrough, 2007; 2012). It is becoming increasingly important to understand how to extract the maximum benefits
from innovations with high potential. This leads to the discussion of commercialization, which represents the ability of capturing the value from innovations (Teece, 2010). Therefore, not only are the characteristics of the innovation itself important, but also the way it is commercialized is crucial to extract the maximum value (Teece, 2010; Boons & Lüdeke-Freund, 2012). The way a company commercialize its products is through a business model. All organizations have a business model, but the majority of them does not articulate nor manage it in the proper way (Chesbrough, 2007).

Managing the business model is critical, given its importance in the innovation process: "The same idea or technology taken to market through two different business models will yield two different economic outcomes." (Chesbrough, 2010, p. 354). As claimed by Hwang and Christensen (2008), disruptive innovations can deliver tremendous value when they are incorporated into an innovative business model. It is also worth remembering that a "new" business model alone does not necessarily guarantee the creation of a competitive advantage, but innovating the BM and make it difficult to imitate can deliver substantial benefits to the firm (Teece, 2010). In fact, talented people can be stolen, pricing tactics can be copied and products easily imitated, but copying an entire system of organizing and running things is a wrenching change and few are willing to go through this kind of effort.

Indeed, the value of BMI has been proven different times. There is a virtual consensus that, to remain competitive and sustain future growth, firms must continuously develop and adapt their business models (Sosna et al., 2010; Teece, 2010; Amit et al., 2011; Amit & Zott, 2012, 2013). Eyring et al. (2011) and Wirtz et al. (2010) emphasize that specific business models, which will be successful in the near future, are likely to differ significantly from traditional ones, and companies will be forced to overhaul their existing business model in order to stay competitive. Chesbrough (2007, 2010) claims that, based on his own research conducted with Xerox, a company has at least as much value to gain from developing an innovative new business model as from an innovative technology. Moreover, a better business model will beat a better idea or technology (Chesbrough, 2007 found in Amit et al., 2011; Amit & Zott, 2012).

BusinessWeek and the highly regarded consultancy firm, the Boston Consulting Group, have conducted a study that showed business model innovators earned a premium over the average TSR (Total Shareholder Return) that was more than four times greater than that enjoyed by product or process innovators (Lindgardt et al., 2009 found in Sorescu et al., 2011). IBM itself found that firms that were financial outperformers put twice as much emphasis on business model innovation as underperformers (Amit et al., 2011; Giesen et al., 2007). Many other academics praise the sustainable benefits coming from BMI, which is expected to become even more important than product and process innovation (Sosna et al., 2010; Amit & Zott, 2012; Wu et al., 2010; Casadesus-Masanell & Zhu, 2012; Weill et al., 2011, Chesbrough, 2007). Clearly, deepening our knowledge on BMI can help practitioners and managers to understand how companies can remain at the top for a long period of time (Wirtz et al., 2010), since no great business model lasts forever (Chesbrough, 2007; Teece, 2010). The expertise in BMI is especially valuable in time of high economic instability as of now (Galbraith, 2012: Johnson et al., 2008; Giesen et al., 2010; Li & Kozhikode, 2009). New global competitors are emerging. The rise of countries with low labor cost is threatening the giants based in the western world. Businesses and customers become increasingly interconnected, demanding more from the products. These shifts often require managers to significantly
adapt one or more aspects of their business models (Wirtz et al., 2010). Hence, BMI can be used as a strategy to move away from environments characterized by intense competition, and to increase the responsiveness of the company to disruptions, such as technological shifts and regulatory responses (Wirtz et al., 2010; Amit & Zott, 2012).

1.2 Problem discussion

Part one - Lack of classification for BMI

Since managing the business model has become a paramount activity, researchers are increasingly interested in the challenges faced by organizations during the process of changing the business model (Cavalcante et al., 2011). Not all the changes in a business model result in innovative outcomes (Cavalcante et al., 2011), despite researchers have often considered the innovation of a BM as a dichotomy, either there is or there is not, thus failing to recognize its complex nature. However, this clashes with the claims of many academics, who consider business model innovation as a new type of innovation, similar to product, market or process innovation (Koen et al., 2011). Hence, it would make sense to analyze BMI under the same frame of reference of other types of innovation.

Historically, the academic community has recognized the complexity of innovations, which are not considered as a unique phenomenon (Abernathy & Clark, 1985). For instance, some innovations challenge the status quo, others bring significant improvements vs. the previous situation, whereas many innovations only generate small incremental enhancements (Abernathy & Clark, 1985; Wessel, 2014). Hence, several indices have been developed to measure the "significance of change", or novelty, of each innovation. Examples are: radical vs. incremental (Abernathy, 1978), modular vs. architectural (Henderson & Clark, 1990), competence enhancing vs. competence destroying (Tushman & Anderson, 1986). Understand this concept is crucial to avoid falling into the mainstream where many fail to distinguish the bold audacious bets from the unheralded incremental ones (Wessel, 2014).

However, as aforementioned, this reasoning does not currently apply to business model innovation. The "significance of change" that is widely supported for process, market and product innovations is an almost ignored concept in the business model innovation literature. This inconsistent view might dampen the process towards a more solid understanding of business model innovation, as well as confusing researchers, generating opposing ideas and clashing beliefs that are likely to cause discrepancies. On the one hand, we find advocates of business model innovation as a supporter of other types of innovation (Teece, 2010; Amit & Zott, 2010, 2012, 2013; Boons & Lüdeke-Freund, 2012). On the other hand, there is a large group that sustains the uniqueness of business model innovation (Wu et al., 2010, Markides, 2006; Bock et al, 2012; Chesbrough, 2010; Demil and Lecocq, 2010; Amit et al., 2011; Amit & Zott, 2012; Teece, 2010; Johnson et al., 2008; Desyllas & Sako, 2013).

Among this controversial mix of opinions, the lack of a framework to measure the novelty of business model innovation was the first concern that sparked the interest of the author in writing the current paper. In fact, instituting a proper measurement for business model innovation is the first step to close the gap with the literature of product, market and process innovation. Thereby, the view adopted in this study is similar to Cavalcante et al. (2011)'s: business model innovation is considered as a general term
that includes different types of business model change, each one identified by its own degree of novelty. In this study, three types of business model innovation are considered: business model extension, business model revision and business model transformation.

Part two - Lack of knowledge about the challenges
By hypothesizing the existence of different degrees of novelty in a business model innovation process, it implies that also the challenges faced by managers are not of the same nature.

"Is it possible to identify specific set of challenges among the different types of business model innovation? What is the nature of those challenges?"

These questions represent the second issue debated in this study. Answering them is pertinent now, since there has been very limited research and empirical evidence on the argument. To my knowledge, in the mainstream literature there are only few related studies that describe the main hurdles faced by managers and their organizations during the innovation of a business model (Taran, 2011; Frankenberger et al., 2013). Chesbrough (2010) discusses the barriers that prevent managers to change the business model, which is certainly a good starting point. However, in his study the focus is on the barriers that prevent this type of innovation, while this study deals with the challenges faced during the process of innovating the BM. In other studies, the authors present their views on the challenging situations encountered during the process of modifying the business model, but few attempts have been made to classify these challenges. The academic community has only offered early insights on the issue to date (Casadesus-Masanell & Ricart, 2010), but the knowledge is far from being comprehensive.

This lack of knowledge has significant repercussions in two different ways. First, it promotes the widely accepted "trial and error" approach for BMI. Many are the advocates of achieving business model innovation through experimentation (Chesbrough 2010; Amit & Zott, 2001; Sosna et al., 2010; Sinfield et al., 2012). For example, Chesbrough (2010) claims that regardless the nature of the challenge encountered, the "way forward is via a commitment to experimentation". I would argue that a strong emphasis on the approach "try something, see if it works, then proceed to the next step" will lead to only a succession of incremental experiments. This method might be a good approach in situations where the knowledge is not sufficient, but it has also certain limitations. The literature should aim to provide further empirical evidence that would help managers to make sound decisions ex-ante, since I firmly believe the essence of business model innovation is choice, trade-offs and fit. The most successful business model innovators ensure to start the process with the right foot, then adjust their actions over time, if required.

As a second point, the limited knowledge of the challenges might prevent managers to embark on business model innovation projects. Despite being aware that is impossible to predict the future challenges, I would claim that having a sufficient overview of the typical issues that characterize BMI might increase the confidence level among managers. The knowledge would help them to come up with better and customized solutions. This approach should not be regarded as an alternative of the trial-and-error one, but rather as a complementary. The synergies created might also instill more
confidence in the employees, avoiding the risk of missing promising uses of their technology when they do not fit perfectly in the current business model (Chesbrough, 2010).

As described, the knowledge is fragmented, the discipline under-investigated in scholarly research and the concept is rarely clarified. Such clarification is therefore required to unify the different points of view into a preliminary framework that provides a further understanding of the challenges in the context of business model change. This is where this article intends to make its contribution. Hence, the question that has guided this explorative research is:

"What are the challenges faced during the process of innovating the business model?"

To answer this question, the paper is divided into two parts. In the first one, I develop a framework to categorize different types of business model innovation according to their degree of novelty. The result is the Business Model Innovation Map, which represents the first contribution of this research. In part two, I adopt a deductive approach to determine the main challenges faced during the innovation of a business model. These challenges are categorized into three main themes that, combined together, generate a preliminary framework: people, process and strategy. These two frameworks will guide the empirical investigation and the analysis of data.

1.3 Purpose
The purpose of this research is to gain a better understanding of the most common challenges faced by organizations in the process of innovating the business model. Undertaking this research requires a conceptual framework to guide the investigation. Therefore, the reach of the objective passes through the development of the Business Model Innovation Map and a preliminary categorization of different challenges.

1.4 Aim and Contribution
By answering the RQ, the aim is to provide an understanding of the challenges faced by managers in the topic of BMI. Furthermore, I identified few areas where the contribution of this article could be of further inspiration for researchers and practitioners alike:

1. The results of this investigation will benefit managers, who are often hesitant when comes to business model innovation, given their limited knowledge of the discipline. The IBM’s Global CEO Studies for 2006 and 2008 shows that managers are actively seeking guidance on how to innovate in their business models (Casadesus-Masanell & Ricart, 2010). Similar findings have been reported by Giesen et al. (2007), who claim that many business leaders have difficulty to merely defining business model innovation. Providing further evidence on how challenges affect the business model innovation process will instill more confidence in leaders, and help them embarking on initiatives that otherwise might have been rejected.

2. Chesbrough (2010) claims that business model innovation is not a matter of superior foresight ex ante, but rather it requires significant trial-and-error and quite a bit of
adoption. Experimentation is critical in BMI (Sosna et al., 2010). Yet, this approach may often clash with the traditional configurations of firm’s assets, whose managers are likely to resist experiments that might threaten their status in the company (Chesbrough, 2010). The knowledge of which challenges are more likely to be faced during business model innovations has a great potential for managers, who could evaluate more confidently which change initiatives to pursue and which to reject. Therefore, the strategic content is fully addressed in this paper.

3. The literature abounds of scholars who support the concept of BM as a strategic device (Doganova & Renault, 2009; Amit & Zott, 2013; Boons & Lüdeke-Freund, 2012). Still, few of them actually show managers and decision-makers how to use a business model framework in practical terms. In this study, I develop the Business Model Innovation Map, which helps distinguishing different types of business model innovation according to the degree of novelty. The framework itself is a contribution to future research, since it delineates some criteria for business model innovation. Its validity and robustness will also be tested through the empirical investigation.

1.5 Chapters Layout
The remainder of the paper is organized as follows:

Chapter 2, the business model - theoretical evolution, serves as an introduction to the concept of business model, from the very first days to the latest publications.

The next chapter, Theoretical Framework, is divided into two sections. It starts with a discussion on how to differentiate different business model innovation types, which leads to the introduction of the Business Model Innovation Map. It follows a discussion on the challenges faced by managers during the business model innovation process and the development of a suitable framework to categorize them.

Chapter 4, Research methodology, provides a detailed explanation of the research approach and strategy, including all the methodological choices and their implications.

Chapter 5, the Empirical Data, consists of the data collected from six interviews, representing five different case studies. In this section, experiences and insights from practitioners is presented in order to develop an empirical foundation for the subsequent discussion.

The following chapter, Findings and Discussion, is dedicated to the discussion of the most important findings found during the empirical investigation, as well as recommendations for practitioners in lights of the data collected.

The study ends with Chapter 7, Conclusions, where the author summarizes the findings of the research and discusses the implications, both theoretical and managerial.
2. The Business Model - Theoretical Evolution

A systematic review of the literature on BM and related concepts is beyond the scope of this article. Getting an overview is further complicated because the research on BM is hampered by a lack of a conceptual consensus. However, I would deem important to offer a perspective on BM that incorporates the latest thinking on the discipline and the different interpretations that scholars have given to business models, with the hope of contributing to the progress towards a unique perspective. Johnson et al. (2008, p.61) claim that "It is not possible to invent or reinvent a business model without first identifying a clear customer value proposition". I would go even further by affirming that innovating the business model is only possible after having a clear picture of what a business model really is, which represents the aim of this chapter.

2.1 Evolution of the Business Model Concept

This is a brief overview of how the business model concept emerged and evolved from the early studies until these days. Two comprehensive studies on business model have been used as the main reference. The first one dates back to 2005, when Ghaziani and Ventresca (2005) performed an analysis of the use of the term “business model” in business research, reviewing general management articles from 1975 to 2000. The second one is a more recent study conducted by Amit et al. (2011), who extended their research period to the year 2010. Finally, I have personally carried out a review of the business model literature in the past three years and I will provide further data in the following paragraphs.

Between the 1975 and 1995, the number of research published was limited to 166, mainly characterized by two distinct trends. In fact, more than 50% of the articles contained the word business model as a reference to either computer systems or as a "tacit" concept, assuming the readers knew the definition of business model (Ghaziani & Ventresca, 2005). Both Amit et al. (2011) and Ghaziani and Ventresca (2005) recognize the mid 1990s as the turning point of the business model studies. With the advent of the digital economy and the Internet, not only did the term business model gain prominence, but also its heterogeneity widely spread across different disciplines (Amit et al., 2010; Ghaziani & Ventresca, 2005). In this period, more than 80% of studies were distributed across a cluster of five frames: value creation, revenue model, e-commerce, tacit definition and relationship management (Ghaziani & Ventresca, 2005). Albeit the lack of dominance of a single framework, the common theme is the creation of value in a changing business environment. According to Ghaziani and Ventresca (2005), the convergence around the concept of value creation could have led towards a global definition of the business model construct. Nonetheless, the hope of a movement in the direction of a global academic standard for business model has been proved wrong by Amit et al. (2011), whose findings stretch up to the year 2010. They concluded that researchers have been trying to establish a universally recognized construct for business model, but as of now the results are not satisfactory.

Many scholars attempted to provide a definition of the term business model, which has been alternatively defined as: "a statement", "a description", "a representation", "an architecture", "a conceptual tool or model", "a structural template", "a method", "a framework", "a pattern" and "a set" (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Johnson et al., 2008; Teece, 2010; Casadesus-Masanell & Ricart, 2010; Wirtz et
al., 2010; Amit et al., 2011). The presence of multiple definitions, as well as the increasing number of disciplines interested in the topic of business model, while increasing richness does not necessarily bring clarity.

Other researchers have tried to define the components of the business model (Osterwalder et al., 2005; Teece, 2010; Johnson et al., 2008; Wirtz et al., 2010) and to explain how these dimensions are linked together (Sosna et al. 2010). Other academics adopted a more general approach: Cavalcante affirms that is impossible to determine the components of BM because they depend on both "individual cognition and the specific characteristics and necessities of a company, and thus differ from business to business" (Cavalcante et al., 2011, p.1330). The same argument is strengthened by Amit & Zott (2013), claiming that BM research can progress even in the absence of a single definition.

However, existing definitions partially overlap, generating a multitude of possible interpretations (Amit et al., 2011; Ghaziani & Ventresca, 2005; Lambert & Davidson, 2012). The reasons for this lack of agreement may be manifold. On the one hand, academics have often adopted definitions that only fit the purposes of their studies, hence hampering the cumulative progress towards a unique definition (Amit et al., 2011). On the other hand, the term business model is used in a variety of academic and functional disciplines, reflecting the multidisciplinarity of the subject, but none has officially claimed its ownership (Ghaziani & Ventresca, 2005). Business model frameworks are often used to describe specific organizations, failing to highlight the relevant differences among industry segments or organizational structures.

Business models are frequently mentioned but rarely analyzed and this might have increased the confusion. This approach limits the generalization of the findings (Lambert & Davidson, 2012) and the substantial differences among industrial sectors makes the creation of a unique framework a daunting task. Moreover, the complexity of the domain has certainly contributed to the lack of a conceptual agreement.

2.2 Business Model: Towards a Unified Perspective

Notwithstanding the lack of a common conceptual base, the literature shares some convergent points. Primarily, the creation of value lies at the heart of any business model (Hwang & Christensen, 2008; Amit & Zott, 2010; Chesbrough, 2012; Sorescu et al., 2011; Boons & Lüdeke-Freund, 2012; Johnson, 2008; Teece, 2010; Amit et al., 2011). A business model describes how a company chooses and organizes its activities in order to create and capture value.

But, what is value? Given the importance of value in all business models, it is worthwhile to dedicate some time and understand the concept. In the academic research, there has been an ongoing debate on the definitions of business value (Brandenburger & Stuart, 1996). Porter (1980) defines value as "the amount buyers are willing to pay for what a firm provides them. Value is measured by total revenue". I would argue that this definition has very strict boundaries that might not be suitable in an increasing interconnected world. Is value related to only the company and customers? Or should organizations be considered as a network of relationships, both internal and external, where value is viewed as a collaborative and common goal for the whole network? As explained below, the latter is more suitable to the latest thoughts on business model.
After value is defined, how to measure it? Value can be measured in pure financial terms, such as revenues, discounted cash flow, cost reduction or economic value (Chesbrough, 2010). It can also be measured by using qualitative metrics, such as relative benefit, customer satisfaction, design or novelty (Osterwalder & Pigneur, 2010). Regardless of the metrics chosen to measure value, each of them would always be anchored to a reference point. In fact, business model represents multiple stakeholders, each with different goals, needs, and perspectives of value. This comes down to the core principle that differentiates business strategy, which is more concerned with the ability of a company to capture value, from business model innovation, often referred to the capacity of creating sustainable value for all stakeholders: the focal firm, customers, suppliers, and other exchange partners (Amit et al., 2011). In conclusion, it is not possible to properly define value without referring to a specific group of stakeholders.

After having clarified the aspect of value that lies at the center of the business model literature, Amit et al. (2011) identified other common areas: 1) The business model is considered a new unit of analysis, distinct from product, firm or industry and its boundaries are wider than those of organizations; 2) Business models try to explain how organizations do business in a holistic view; 3) Value creation and value capture are the ultimate goals of business models. Recently, Amit & Zott (2013) extended their analysis and identified two more elements of convergence: 4) Value creation is related to all stakeholders; 5) Activities carried out by the firm are as important as the ones performed by partners, suppliers and customers. In addition to the points above-mentioned, the term business model has been mainly employed in the explanation of three phenomena, called also "silos" (Amit et al., 2011): the use of technology in organization; strategic issues; innovation and technology management.

2.3 Latest Thinking on Business Model
Since the comprehensive study of Amit et al. (2011), the research on business model proceeded relentlessly. Hence, I have personally conducted a review of the latest publications related to the concept of business model (See methodology for further information). As a result, I do see a strengthening of some elements discussed by Amit et al. (2011) in their review, as well as the emergence of new "trends":

1. Various scholars have studied the BM concept in different industrial sectors, but there is an increase interest on the application of BM in developing economies and how the concept can be adapted and leveraged to understand the needs of customers in those specific countries (Li & Kozhikode, 2009; Mason & Leek, 2008; Wu et al, 2010);
2. I have noticed a significant dichotomy between the use of BM either as a concrete tool (Doganova & Renault, 2009; Amit & Zott, 2013; Boons & Lüdeke-Freund, 2012) or as a conceptual thinking (Wu et al, 2010; Dahan et al., 2010; Cavalcante et al., 2011);
3. The concept of value creation and appropriation is not solely restricted to the "economic value". The holistic view of BM, whose structure embraces various stakeholders, is tied to the significance of social value; from here, the concept of co-creation is taking place (Dahan et al., 2010);
4. The creation of a new business model is not sufficient to gain a competitive advantage; it should also be difficult to imitate. However, a "Good product that is embedded in an innovative business model, however, is less easily shunted aside." (Amit & Zott, 2012, p. 3)

2.4 Definition and Representation of a Business Model

Despite significant disagreements on what a business model is, every organization has a business model, whether it is articulated or not (Chesbrough, 2007). Definitions of business model abound in the academic literature, but for the purpose of this study, I will consider a business model as as a "blueprint that reflects the capabilities of a specific organization". The decision to adopt a capabilities perspective of business model is rather uncommon, but the motivations will be clarified in chapter 3. Overall, this definition does not relate to any specific industry or class of stakeholders and therefore it successfully represents the characteristic multidisciplinarity of business model. Moreover, a "general" definition suits with the characteristics of the case companies studied in this paper, which span over multiple industries.

Before determining how a business model will be affected by the introduction of different initiatives, it is fundamental to identify the boundaries of a business model (Cavalcante et al., 2011). There has been a long debate in the literature on this matter. The last decade has seen a clear division between those who regard business model as a conceptual tool (Wu et al., 2010; Dahan et al., 2010; Cavalcante et al., 2011; Teece, 2010; Osterwalder et al. 2005) and those who consider it as a real device to be used by managers in their businesses (Doganova & Renault, 2009; Amit & Zott, 2013; Boons & Lüdeke-Freund, 2012). In the last years, a clear convergence towards BM as a new unit of analysis, therefore a managerial tool for capturing, sharing and realizing strategic content, is taking place (Amit & Zott, 2010; 2013; Mason & Leek, 2008; Osterwalder et al., 2005). This is also the view adopted in this article. In fact, representing a business in a schematic form often facilitates the analysis and the communication of change (Weill & Vitale, 2001; Osterwalder et al., 2005). It also helps general managers and entrepreneurs to find new source of innovation, by looking beyond its traditional sets of partners, competitors and customers (Amit & Zott, 2012).

The practical use of business models has been confirmed in different occasions (Baden-Fuller and Morgan, 2010; George and Bock, 2011; Teece, 2010 found in Bock et al, 2012). Several authors have attempted to represent business models through a mixture of informal textual, verbal, and ad-hoc visual representations (Amit et al. 2011). Some authors developed frameworks tied to the notions of a specific industry or market, such as e-business (Amit & Zott, 2001), airline companies (Casadesus-Masanell & Ricart, 2010), retail sector (Sorescu et al., 2011), the Internet (Wirtz et al., 2010), developing countries (Sanchez & Ricart, 2010), insurance brokers (Desyllas & Sako, 2013).

Studying the changes of a business model in a fine-grained manner demands the identification of its core components as a first step, before dealing with the complex processes of change (Demił & Lecocq, 2010). The prolonged debate on the components of a business model helped to focus the attention on the core processes that deserve most of the attention (Cavalcante et al., 2011), but there still exist two main ideas. From one side, the authors who describe ex ante the main components of a BM (Osterwalder, 2005; Johnson, 2008 found in Demił & Lecocq, 2010). From the other side, the ones
who adopt a more inductive approach (Casadesus-Masanell & Ricart, 2010). Both views have pros and cons, but according to Siggelkow (in Demil & Lecocq, 2010, p.231), the "Advantage of an ex ante specification of core elements is that changes in these elements can be measured consistently across firms."

Since this study is based on data belonging to multiple companies, I will rely on one of the most accepted representations of business model, the one created by Johnson et al. (2008), who split the business model concept into four different components:

1. Value proposition
2. Profit formula
3. Key resources
4. Key processes

This representation describes BM in terms of relatively broad components, thus avoiding confining the analysis to narrow, predefined conceptual categories that may only suit specific types of organizations or business models (Demil & Lecocq, 2010).

2.5 Johnson's Business Model Framework

*Value proposition*. Arguably, value creation and value capturing are the ultimate goals of a business model and the value proposition contains the details of how the company achieves them. According to Johnson et al. (2008), there are three constituent parts of the value proposition: the problem that has to be solved; the target group of people who experiences firsthand the issue and the offering, which satisfies the problem or fulfills the need.

*Profit formula*: it represents the revenue mechanism by which the firm will be paid and the cost incurred in performing the activities (Johnson et al., 2008). It is a blueprint that describes how the company captures value for itself. The revenue model, the cost structure and the profit margin are all parts of the profit formula.

*Key resources*: the key resources are assets such as the people, technology, products, facilities, equipment, channels, and brand required to deliver the value proposition (Johnson et al., 2008). Not only those elements are important, but also how they interact between each other could determine the success of a business model.

*Key processes*: managerial and operational processes necessary to deliver and capture value in a systematic way (Johnson et al., 2008). Examples are training, development, manufacturing, budgeting, sales and service.

These four elements form the building blocks of any business. The customer value proposition and the profit formula define the value for the customer and the company, respectively; key resources and key processes describe how that value will be delivered to the customer and captured by the company (Johnson et al., 2008).
3. Theoretical Framework

This chapter is organized into two separate sections, preceded by a discussion on business model innovation. The chapter starts with the definition of business model innovation BM adopted in this study. It proceeds with the introduction and explanation of the Business Model Innovation Map. It ends with a section dedicated to a discussion on the challenges faced by managers during the process of innovating.

3.1. Business Model Innovation

In the last decades, Lambert & Davidson (2012) performed an extensive review of the literature on business models and, from their analysis, they found the emergence of three dominant themes: 1) The business model as a basis for enterprise classification; 2) Business models and enterprise performance; 3) Business model innovation.

In the past years, Business Model Innovation (BMI) was not considered in the main economics theories as an important phenomenon (Teece, 2010), and this is probably the reason of why the paucity of literature (both theoretical and practical) on the topic is remarkable (Teece, 2010). More recently, the recognition of BMI as a distinct management research topic is increasing (Lambert & Davidson, 2012) but it is still poorly understood compared to product or process innovations (Amit et al., 2011; Casadesus-Masanell & Zhu, 2012). As shown in the introductory paragraph, the research on business model innovation has received substantial attention by the practitioners and researchers only in the last fifteen years (Sosna et al, 2010; Desyllas & Sako, 2013). The fundamental shifts in the environment in which a firm operates have created instability and uncertainty about the future, and companies are always looking for new ways to growth. Among them, there is the exploration of unknown business model territories, which has become a major task for many executives in their efforts to cope successfully with technological progress, competitive changes, or governmental and regulatory alterations (Wirtz et al., 2010; Amit and Zott, 2012; Johnson et al., 2008).

Notwithstanding business model innovation gained prominence only recently, the concept has been initially theorized in the first part of the 20th century. In fact, Schumpeter (1934) distinguishes between five types of innovations: new products, new methods of production, new sources of supply, exploitation of new markets, and new ways to organize a business. The latter can be considered as a parent element of business model innovation.

Being aware that companies have many more processes and a much stronger shared sense of how to innovate technology rather than they do about how to innovate business models (Chesbrough, 2010), it is fundamental to distinguish BMI from product, service, or technology innovations. Those who mix the first with the latter might underestimate the effort required. Johnson et al. (2008) recommend managers to not pursue BMI if they are not confident that the opportunity is large enough to warrant the commitment: the probability of failing are expected to be high and having deep knowledge of how its parts are linked and interact together is crucial to minimize the damages of negative scenarios. Therefore, BMI can be considered as a new type of innovation, distinguished from the thoroughly studied product, market or process innovations (Koen et al., 2011). It could represent a separate entity that supports other types of innovation (Teece, 2010;
Amit & Zott, 2010, 2012, 2013; Boons & Lüdeke-Freund, 2012) or it could stand on its own (Wu et al., 2010, Markides, 2006; Bock et al., 2012; Chesbrough, 2010; Demil and Lecocq, 2010; Amit et al., 2011; Amit & Zott, 2012; Teece, 2010; Johnson et al., 2008; Desyllas & Sako, 2013). Indeed, complementing BMI with technological innovation represents a good strategy to reach regular successes (Chesbrough, 2010).

Researchers have yet to agree on a common theoretical ground, and little attention has been paid to analyze how companies can achieve BMI (Wirtz et al., 2010; Amit & Zott, 2010). This lack of clarity and definitional consistency represents a potential source of confusion. For the purpose of this paper, business model innovation is identified as:

"A process of refining existing BM, which often results in lower cost of increased value to customers." (Teece, 2010, p.181)

But when exactly a "refining" in the business model becomes a BMI? We know that incremental and continuous business model changes are more prevalent than radical changes (BMI) (Demil & Lecocq, 2010), but we also agree that not all refinements are equal. Some changes may have no effect on the existing business model of an organization. For example, small improvements in the manufacturing process will usually not require business model innovation (Teece, 2010). Cavalcante et al. (2011) claim that several experimental projects and prototypes developed with emergent new technologies would hardly lead to business model change. Nonetheless, other initiatives may completely revolutionize the BM, leading to a business model innovation. To find a common ground for the discussion, in the first part of the following paragraphs I describe a framework that classifies different types of business model innovations: the Business Model Innovation Map.

Subsequently, by assuming that changes in a business model are not of the same nature, ergo the challenges faced by managers might also differ. Hence, the second part of the chapter presents a discussion on the challenges related to business model innovation, drawing on the findings of prominent scholars.

These two parts form the basis of this study, which are summarized by the following schema:

Figure 1 - Chapter roadmap

1° step
Develop a framework to classify different types of business model innovation

2° step
Determine the challenges faced during business model change
3.2 First Step: Business Model Innovation Map

The concept of innovating the business model is still blurry, since the literature is full of different interpretations. Furthermore, the process of innovating the BM differs across types of organizations (Sheehan & Stabell, 2007 found in Amit et al., 2011; Cavalcante et al. 2011). This partially explains why business model innovations are still rare. “An analysis of major innovations within existing corporations in the past decade shows that precious few have been business-model related” (Johnson et al., 2008, p.60).

According to Wirtz et al. (2010), change in a business model becomes business model innovation when two or more elements are reinvented to create value in a different way. For Johnson et al. (2008, p.64), a "New business model is required when all elements of the current business model are needed to change." Amit and Zott (2012) explain that new business models occur by either adding novel activities, by linking the current activities in a new way during the value creation process or by changing the parties that perform the activities. Others are even more general: business-model innovation occurs when a firm adopts a novel approach to commercializing its underlying assets (Gambardella & McGahan, 2010) or by improving the mechanism of creating and capturing value from all the activities the company is involved (Casadesus-Masanell & Ricart, 2011; Chesbrough, 2007).

As shown, in the extant literature there is not a common agreement of when exactly a change in the business model becomes business model innovation. Yet, regardless of the exact number or type of elements involved, all the scholars agree that innovating the business model is both challenging to execute and difficult to imitate, since it involves a multidimensional set of activities (Johnson et al., 2008; Wirtz et al., 2010; Teece, 2010; Desyllas & Sako, 2013). Not only do not the previous examples represent a unified perspective, but also they presuppose the existence of a barrier separating what is innovation and what is not. As aforementioned, in this study I adopt a different approach.

According to Amit & Zott (2001), the combination of a firm's resources and capabilities may lead to value creation, which represents the idea behind the dynamic capabilities approach (Teece, Pisano, and Shuen, 1997 found in Amit & Zott, 2001). These capabilities enable firms to create and capture the so-called Schumpeterian rents (Amit & Zott, 2001), which could be conceptualized as "value". Value is also the core objective of a business model and this implies a close relationship between the firm's capabilities and its BM. This viewpoint clarifies the decision of considering business model as a blueprint that reflects the capabilities of a specific organization.

Proceeding with the reasoning, Amit and Zott (2001) affirm that the emergence of a relevant change in the market place affects the capabilities of an organization, which can now be exploited. By posing that, I argue that the existing competences (i.e. capabilities) of an organization play a central role in the dynamics of a business model. This explains why the framework shown in the subsequent paragraph (figure 2) is built on the concept developed by Abernathy & Clark (1985) of "making existing competence obsolete or reinforcing them". The reasons behind this choice are manifold. Above all, their paper is universally regarded as one of greatest piece in the academic literature, but this alone would not be sufficient. First, the aim of Abernathy & Clark's investigation is to develop a framework to categorize different types of innovation (Abernathy & Clark, 1985). This is the exact same aim of this study, despite the focus is
on business model innovation. However, the second point is even more important. As I stated in the introductory chapter, the emphasis of this research is not on the barriers that impede a company to innovate the business model, but rather on the challenges faced during the process of innovating the business model. Abernathy & Clark use the same argument to introducing their own research, by stating, "Previous research focused on the aspects that spur or retard technical advance" (Abernathy & Clark, 1985, p.3). Therefore, they implicitly zero in on the actual process of innovating.

Lastly, the concept of making existing competences obsolete, or reinforcing them, reflects the idea that not all innovations are equal, but some are certainly more novel than others. Since I consider BMI a new type of innovation, this perspective suits perfect with the content of this study. Moreover, by considering the business model as a blueprint of the organization’s capabilities, any change in the latter determines a variation of the business model structure or linkages.

Having explained this view, I now address the ways in which a business model can be changed. How would a strategic framework that classifies distinct types of innovation in a business model look like (Cavalcante et al., 2011)? To answer these questions, the boundaries of a business model must first be identified (Cavalcante et al., 2011). This will be addressed in the following paragraph, where I map the different business model changes in the Business Model Innovation Map (Figure 2). With the Business Model Innovation Map, I emphasize the idea that discontinuous changes are not as pervasive as we might think. But words like "transformation", "revolution" and "innovation" are incredibly overused, even to describe situations that are anything but novel. Figure 2 wants to restore the meaning of some words to their origins, by showing that the real novel innovations (business model transformation) represent only a tiny part.

Figure 2 - Business Model Innovation Map (Adapted from Abernathy & Clark's transilience map (1985))
Consistent with the definition of business model adopted for this paper, the map is based on the idea that business models can be represented as "Meta-models that consist of elements and relationships that reflect the complex entities that they aim to describe." (Osterwalder et al., 2005, p. 5). This view is also shared by other prominent researchers (Amit & Zott, 2012). In other words, BM is considered as a structure composed of different activities and links among these activities, as depicted by Osterwalder et al. (2005) in the "business model concept hierarchy". Hence, change in the BM may be due to a change in activities, structure or both. Change in activities refers to any modification of the four key constituents of a BM (profit formula, value proposition, key resources and key process), such as changes in the content or in the governance of these activities (Who perform the activities) (Amit & Zott, 2012). Change in the structure takes place when activities are linked in a different way, or when the sequence in which these activities are performed during the process of delivering value has been altered (Amit & Zott, 2012).

In Figure 2, I have positioned the change in structure in the vertical dimension and the change in activities in the horizontal one. This creates a map with four quadrants, each of them representing a different type of business model innovation. Overall, the novelty of a business model change can be classified as:

1. Business model extension
2. Business model revision
3. Business model transformation

To what extent a business model extension is different from a business model revision? More generally, how to identify the borders among these three types of business models?

On the one hand, I am aware that defining precise borders among the types of business model innovations might not fully represent the reality, which is certainly more complex. On the other hand, figure 2 has been created for illustrative purposes and it should facilitate, not hinder, the comprehension of the topic.

First of all, each of the three illustrated business models is accompanied by a scale that measures the significance of change (of structure or activities). The range is defined by polar extremes: one conservative and the other one radical. The conservative side represents situations that enhance and reinforce the firm's existing structure or linkages, leveraging the past investments already made. On the radical end of the scale, changes in activities and structure of the BM result in the opposite. Instead of strengthening the existing situation, they reduce its value and, in extreme cases, make it obsolete (Abernathy & Clark, 1985). In this section, new business models rely on a combination of processes, structure, activities and resources that are very different from the old ones. This does not necessarily mean that new core competences are developed; it can merely be the reconfiguration of them. Hence, the different combinations of "change in activities" and "change in structure" set out in figure 2 result in three different impacts on the business model, as mapped above.

Regarding the shifts between quadrants, a precise definition involves a certain amount of subjectivism. The transition from a business model extension to a business model revision is often associated with either a significant change in 2+ dimensions of
Johnson's business model framework (Johnson et al., 2008), or in relevant transformations in teamwork routines, procedures, practices, interactions among employees and with external partners (customers, distributor, suppliers). When these changes happen simultaneously, we are in the presence of a business model transformation. In the following paragraphs, I shall illustrate each category using practical examples.

3.2.1 Business Model Extension, Business Model Revision and Business Model Transformation.

**Business Model Extension**

*Change in structure: LOW. Change in activities: LOW*

Business model extension would build on and enforce both the existing activities and structure of the firm, which will be of primary importance in delivering and capturing the value. It exploits the potential of the current business model in order to grow further. Clearly, all business model extensions impose a change of some kind, but this change does not disrupt the current business model of the company.

It is not possible to define precisely which and how many components of the BM have changed; every case is different. A geographical expansion may require a different value proposition or the development of new partnerships. Yet, it is only a matter of bringing the same and successful BM to a different place, with the proper adjustments. The previous statement is not meant to play down the complexity of a business expansion. It is a difficult process but, in terms of business model, the overall impact is minimal. Generally, business model extension is associated to the exploration of opportunities for enlarging the business or to the exploitation of associated commercial opportunities (Cavalcante et al., 2011). It includes, but does not limit to, the refreshment of an organization's product lines with "new and improved" versions; the introduction of new distribution channels (E.g. e-commerce), the addition of complementary activities, the geographic expansion to a similar country and market penetration.

Bayer, a German leading pharmaceutical company, well known for the painkiller Aspirin, has carried out one of the most successful rebranding strategy. In the 1980, academic research showed, with apparently undeniable evidence, that aspirin had also a positive effect on the heart well being. With Bayer Aspirin’s pain relief market share down to 6%, the company re-positioned Aspirin as a preventer of heart attacks. Bayer did not change the drug composition, nor did it change the price. It mainly modified the value proposition: "from a painkiller to a lifesaver", and maybe few minor activities such as partnerships or distribution channels. This simple, but brilliant, change brought billions of new sales for the company, leaving substantially untouched the BM. The company reinforced the existing components of the business model (profit formula, key resources and key processes) expanding its potential target customers through the creation of a new value proposition.
Table 1 - Bayer business model

<table>
<thead>
<tr>
<th>Bayer old business model</th>
<th>Bayer new business model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value proposition</strong></td>
<td>Branded as a &quot;wonder drug&quot;, with life saving properties.</td>
</tr>
<tr>
<td>Sold as an effective painkiller with a broad range of usage.</td>
<td>Sold in pills and chewable flavored gums.</td>
</tr>
<tr>
<td>Sold in 500mg tablets</td>
<td>Creation of different target offerings: For women, for headache, for body pain, double dosage/Single dosage.</td>
</tr>
<tr>
<td><strong>Profit formula</strong></td>
<td>Cash cow: high price (compared to competitors), high volume and high margin</td>
</tr>
<tr>
<td>Focus on growth</td>
<td></td>
</tr>
<tr>
<td><strong>Key resources</strong></td>
<td>Brand name, logo and distribution through pharmacies and major retailers. Hefty commissions to distribution partners: strong relationship</td>
</tr>
<tr>
<td>Brand name, logo and distribution through pharmacies.</td>
<td></td>
</tr>
<tr>
<td>Superior technological knowledge</td>
<td></td>
</tr>
<tr>
<td><strong>Key processes</strong></td>
<td>Stayed the same, with only minor tweaks in terms of marketing and manufacturing.</td>
</tr>
<tr>
<td>Manufacturing process is paramount</td>
<td></td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>N/A</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Business Model Revision**

_Choice in structure: LOW. Change in activities: HIGH_  
_Choice in structure: HIGH. Change in activities: LOW_

Business model revision is represented by two quadrants in figure 2: upper left and bottom right. This type of change is characterized by the reinforcement of existing components of the business model, and the simultaneous creation of novel ones. A revision of the business model leverages the company's current competencies to create new — sometimes disruptively new if affects the whole market — positions (Linder & Cantrell, 2000). Hence, the existing configuration of the BM is still important, but not sufficient to make the new business model succeed. New linkages or activities have to be developed. Indeed, revision implies "Following a different direction and/or exploring alternative ways of doing business" (Cavalcante et al., 2011 p. 1333). The business model revision can be further divided into two sub-categories. The bottom-right quadrant represents a business model characterized by new activities, but the structure is roughly similar. On the other hand, the upper-left quadrant describes situations where mainly the sequence in which the activities are performed, or the links among them, is modified. An example of how to revise the business model by changing the sequence (or links) of activities is given by Dell.

In 1999, Dell became the largest PC manufacturer in the world. The company did not sell a product with special characteristics, nor the price was cheaper than the competitors'. Instead of relying on wholesalers, retailers and intermediaries, Dell commercialized its products directly to consumers via the Internet. Moreover, the company manufactured the PC after the order has been completed, not before as for all the other competitors (built-to-order concept). Finally, Dell built direct relationships with its customers, enabling the company to predict trends earlier than anybody else. This shows how Dell completely revolutionizes the structure of its business model, which inevitably had a cascade effect also on the company's activities.
Table 2 - Dell business model

<table>
<thead>
<tr>
<th>PC manufacturers business model</th>
<th>Dell business model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target consumer families and first-time buyers with limited technological background. Selling a product</td>
<td><strong>Value proposition</strong></td>
</tr>
<tr>
<td>Higher price, Lower margin</td>
<td><strong>Profit formula</strong></td>
</tr>
<tr>
<td>Retailer and Distribution channel partnerships. Core competences were product innovation and development</td>
<td><strong>Key resources</strong></td>
</tr>
<tr>
<td>Buy items to keep as inventory (flexibility to meet unstable demand) Manufacturing all the needed parts</td>
<td><strong>Key processes</strong></td>
</tr>
<tr>
<td>Indirect sales model: Factory--&gt;Distributor--&gt;Reseller--&gt; Consumers</td>
<td><strong>Structure</strong></td>
</tr>
</tbody>
</table>

Amazon represents a different example of business model revision, which finds place in the bottom right quadrant of the Business Model Innovation Map. In particular, the introduction of the e-book reader Kindle in 2007. The company born in 1995 as an online bookstore, it is now one of the biggest e-commerce stores, owning various diversified businesses. The Kindle certainly represents a steppingstone of Amazon's success. Amazon leveraged its existing retail platform and encouraged publishers to develop digital content by offering hefty profits on the eBooks. At the same time, the company developed new hardware capabilities necessary to build the product and it positioned the Kindle not as a device, but as a service (Jeff Bezos). Hence, Amazon could be considered an example of business model revision, since the company started manufacturing the hardware itself, not only distributing others companies' articles. Moreover, the introduction of the Kindle could be considered as the first step that ultimately led Amazon to become a publishing house.

I would like to stress that I personally consider the creation of the Kindle ecosystem as a business model innovation per sé. However, I have classified the new Amazon business model as "revision" for two reasons. First, one year earlier Sony introduced a similar device, with higher performance and less weight than the Kindle. However, it did not reach a similar success. Second, by taking the whole company into consideration, Amazon continued to run its old e-commerce business in the same way it did before the introduction of the device.
Table 3 - Amazon business model

<table>
<thead>
<tr>
<th>Amazon old business model</th>
<th>Amazon new business model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-cost online bookstore and retailer.</td>
<td>Sale of the Kindle ecosystem (tablet, media store, e-books)</td>
</tr>
<tr>
<td>Price and convenience</td>
<td></td>
</tr>
<tr>
<td>High Economies of Scale, low profit margin, focus on growth</td>
<td>Sales of hardware (low margin) along with sales of media content (high margin). High economies of scale and locked ecosystem</td>
</tr>
<tr>
<td>Value proposition</td>
<td>Profit formula</td>
</tr>
<tr>
<td>Distribution of products</td>
<td>Creation of products</td>
</tr>
<tr>
<td>Warehouse distribution centers</td>
<td>Warehouse distribution centers</td>
</tr>
<tr>
<td>Outstanding customer service</td>
<td>Outstanding customer service</td>
</tr>
<tr>
<td>Key resources</td>
<td>Key processes</td>
</tr>
<tr>
<td>Manufacturing capabilities</td>
<td>Publishing books</td>
</tr>
<tr>
<td>Key processes</td>
<td>Structure</td>
</tr>
<tr>
<td>Business through its e-commerce platform</td>
<td>Business through its e-commerce platform</td>
</tr>
</tbody>
</table>

**Business Model Transformation**

*Change in structure: HIGH. Change in activities: HIGH*

Whether business model transformation creates a new market or whether it reformulates an established industry, this type of business model change necessitates new linkages, structures and processes that make existing investments obsolete. Business model transformation always brings an element of newness: it is new at least to the organization that is introducing it, if not to the market itself.

In the last case, it is likely to create a sustainable competitive advantage (Teece, 2010). The creation of new activities and linkages is required, which will differ significantly from the ones in the old business model. New products or services that require substantially different capabilities; penetration into a market by introducing a new business model; opening of a new market; the switch from a product to a service solution strategy; they all potentially lead to innovative business models.

Ryanair can be considered as one of the most successful business model transformation. Being at the brink of bankruptcy in 1990 (Casadesus-Masanell & Ricart, 2010), Ryanair's management team completely overhauled the entire company, going from a full-service airline company to a low-cost business model. Ryanair changed the customers' perception of the airline transport business, which became only a means to reach the destination. Low fares, low service, secondary airports, standardized fleet of 737s and many other key choices determined the fortune of Ryanair. Not only did the activities change substantially, but also the how they were connected each other: commission for travel agencies have been seriously cut. Customers started paying directly to Ryanair and all the key resources (Equipment, people, partnerships etc.) were tied to achieving the lowest possible cost. Ryanair disrupted the structure and the links of the business model it previously had, creating new processes, activities and links to support the firm's strategy.
### 3.3 Second Step: the Challenges

After having clarified the existence of different types of business model innovation, this section introduces the discussion of the challenges faced by companies. As mentioned in the introduction, the knowledge of the challenges encountered during the business model innovation process is both restricted to specific studies and limited in the more general sense. Developing a proper framework is not appropriate given the current knowledge, but the first step is to provide a tentative categorization, which will help guiding the empirical investigation.

To analyze different challenges, I have developed three "descriptive categories":

1. Process challenges
2. People challenges
3. Strategic challenges

These three levels of categorization represent only a tentative way of classifying the challenges. Descriptive categories, as named by Shields & Tajalli (2006), match perfectly with what research questions, and are defined as:

<table>
<thead>
<tr>
<th>Traditional airline business model</th>
<th>Ryanair business Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfortable journey.</td>
<td>Value proposition</td>
</tr>
<tr>
<td>Target is business people</td>
<td>The cheapest way to reach a destination.</td>
</tr>
<tr>
<td></td>
<td>Target is leisure travellers</td>
</tr>
<tr>
<td>Full-service model. Average volume</td>
<td>Profit formula</td>
</tr>
<tr>
<td>All services included</td>
<td>Low-cost model. High volume</td>
</tr>
<tr>
<td></td>
<td>&quot;Nothing free&quot; policy</td>
</tr>
<tr>
<td>Primary airports.</td>
<td>Key resources</td>
</tr>
<tr>
<td>Diversified fleet.</td>
<td>Partnerships with secondary airports.</td>
</tr>
<tr>
<td>Economy, business and first class</td>
<td>Standardized fleet of 737s</td>
</tr>
<tr>
<td>Powerfulte trade-union</td>
<td>Single class</td>
</tr>
<tr>
<td>Long and short haul flights</td>
<td>Key processes</td>
</tr>
<tr>
<td>Indirect Sales model:</td>
<td>Short haul flights</td>
</tr>
<tr>
<td>Customers--&gt;Travel agencies--&gt;airline company</td>
<td>Structure</td>
</tr>
<tr>
<td></td>
<td>Direct Sales model: Customers--&gt;airline company (website)</td>
</tr>
</tbody>
</table>
Several things are grouped together and particular things assigned to the several groups to which they belong. Things are grouped together because they resemble one another. The literature review should also help finding family resemblances and labels for the bins (Categories' names). (Shields & Tajalli, 2006, p. 323)

The underlying reasoning of choosing these three descriptive categories is based on the findings of the widely cited study "Central problems in the management of innovation" (Van de Ven, 1986). The author discusses the central problems in the management of innovation, which can be summarized by the three aforementioned categories. I believe the same reasoning can be applicable to business model innovation, which is nothing but a sub-category of innovation. To be thorough, Van de Ven's original article describes a fourth additional factor: the structural problem of managing part-whole relationships (Van de Ven, 1986, p. 591). He refers to the issues raised in coordinating the different activities necessary to reach a common goal: the innovation (Van de Ven, 1986). However, the business model itself is a combination of different functions and processes aimed at reaching a common goal. For this reason, that fourth category has no use in this study, since it refers to the business model challenges per sé and does not provide any specific detail. Hence, it can be left out from the discussion. The remaining three key challenges (process, people and strategic) can be considered sufficient to cover the broad spectrum of issues that characterize business model innovations. Nonetheless, its validity will be tested through the lens of the empirical findings.

People challenges indicate difficulties in triggering the right behavioral responses and action thresholds from the employees (Van de Ven, 1986). Overcoming them has a medium-term impact on the organization. Process challenges refer to all the issues related to the activities and tasks performed by an organization, both internally and externally, aimed at delivering and capturing value. Process challenges answers to the question "What is required in order to put the idea of innovating the business innovation into practice?" The lack of competences represents one of these challenges. Solve process challenges is likely to generate a short-term impact on the company. Strategic challenges represent the high-level decisions undertaken by the top management team in order to create and manage an infrastructure that is conducive of innovating the business model (Van de Ven, 1986). Strategic challenges force a company to consider alternative ways of doing things and are often based on hypothetical assumptions (Van de Ven, 1986). This category of challenges has a long-term effect on the firm.

People, process and strategy do not exist in isolation, but are interconnected to each other. By combining the findings of multiple studies, the subsequent paragraphs offer greater details of each challenge in the context of business model innovation.

3.3.1 Process Challenges
Resource ambidexterity: the decision of embarking in a business innovation process has to be carefully assessed. The new BM should not compromise the functionalities of the old one (Johnson et al., 2008), since there will be a transition phase, where they both run simultaneously. Avoiding value cannibalization is certainly a main concern and it is critical the new BM will not prevent the old one from creating and capturing value. This is especially true for firms with established brands, consolidated manufacturing processes and close relationships with distribution channels (Chesbrough, 2012). Hence, managing this coexistence and the risk of ruining the reputation is tricky. Preserving the
BM is also important when only minor changes affect the business model. Managers should be aware of any issue that new parts of the BM may cause to the remaining structure.

In all situations, shifting resources between business models is a delicate balancing act. Some managers will find the new business model growing at their expense, therefore having incentives to dismiss it. Often resources are trapped in the core activities, and innovative new businesses have no hope of getting anywhere. Adopting a dynamic business model structure has proven to be the most successful for managing this resource ambidexterity, given its capacity of exercising both static properties (to ensure the smooth running of existing activities) and flexible characteristics (so as to be receptive to changes in the environment) (Cavalcante et al., 2011). Managers of this typology of business models revise the resource allocation process on an ongoing basis, matching it with the internal and external conditions.

Of different opinion are various prominent researchers, who cast serious doubts on the effectiveness of ambidexterity (Markides, 2013). They claim that this is a false issue, because two business models should be completely separated right from the beginning, in order to avoid the problems mentioned earlier. Although the separation sounds theoretically appealing, the evidence is that by simply creating separate units is not enough to ensure success (Markides, 2013). In summary, the challenge is to determine the degree of organizational separation between the existing and new business model.

Knowledge and skills development: if we stick with the idea that BMI is another type of innovation, placed side-by-side to process, product and market innovations, then possessing the proper skills is a significant advantage (both individual's and company's wide). Innovation might be the result of internal R&D, or the outcome of ideas and suggestions originated outside the firm: market partners, suppliers or customers. Hence, successful innovative companies are able to effectively combine the sources of technical information with the market signals that identify potential needs/issues to be solved. Similarly, modifying and innovating the business model requires a precise set of skills and capabilities. This is corroborated by the fact that the same technology commercialized in two different ways will generate two different returns (Chesbrough, 2010). An example is the geographical expansion in a adjacent country: language skills, knowledge of the market, cultural differences and managing the operations. All represent challenges that need to be addressed.

Furthermore, during the process of changing a BM, the interactions among operations, engineering, marketing, sales and finance will be frequent. Conflicts may arise and the ability to resolve the internal issues while moving forward the project is paramount. Soft skills such as clear communication, negotiation abilities and leadership are highly regarded. In addition, only a small percentage of the workforce may possess the skills necessary to develop the new business model: this advantage automatically gives them more power and creates "losers" - groups whose budgets are cut to free up resources to support the new business model (Chesbrough, 2012). IBM represents an exemplar case study, during its transition from hardware to a service business model. The skills of IBM services personnel differ from those of its product and technology people, and the company needed many more of the former and fewer of the latter (Chesbrough, 2012).
3.3.2. People Challenges
Culture: embrace uncertainty and failure. "Successful incumbents must tolerate initial failure and grasp the need for course correction" (Johnson et al., 2008 p. 7). The process of changing the business model is not straightforward and linear. It might be characterized by different setbacks that will ultimately undermine the whole process, if not properly managed. Many authors indicate the trial-and-error approach (Sosna et al., 2010, Chesbrough, 2010, 2012) as the ideal method for innovating the business model. In fact, traditional market research or surveys are inefficient for this type of innovation (Yunus et al., 2010): rarely are people able to embrace a forward-looking mentality and depict their future needs.

But supporting continuous experimentation is not an easy task. Consecutive failures can lower the morale of employees and create internal disagreements if there is not a strong commitment from the leadership team to embrace this situation and instill a culture of "open-failures". Innovating the business model requires patience (Johnson et al., 2008). Moreover, it has been demonstrated that firms with a culture that encourages creativity are more likely to embrace structural change and resource reconfiguration (i.e. business model change) (Bock et al., 2012).

The concept of an open-failures culture is closely linked to the problem of path-dependency (Cavalcante et al., 2011). Originally theorized as a lock-in mechanism that impedes renewal in major reorganizations, it represents a serious issue for successful business model change. As previously stated, the path towards BMI is characterized by many attempts. Effective managers should be unemotional and unbiased when making judgments: adopting objective point of views and abandoning paths that would lead nowhere.

Lack of authoritative leadership: almost all the change initiatives that take place in organizations are proposed or initiated by someone, who is considered the "project champion". He is the initiator and the leading figure inside the organization. He is responsible for managing the results and delivering a new, better business model. The more the change initiative impacts different parts of the business, the more an authoritative and capable figure is required to lead the change. Changes in the business model require the involvement of the entire executive suite, starting from the CEO (Chesbrough, 2007). The lack of commitment from the top represents a significant challenge for a successful BM change execution. It is true that empowering and getting more people involved is a powerful tool to gain commitment, but, as said earlier, business model innovation boils down to have the good fit, make the right choices and finding the best trade-offs. Strong leaders have the responsibility make tough choices and define trade-offs.

Nonetheless, many executives do not yet consider BMI as a fundamental element of their agenda (Chesbrough, 2012). An organization must give a senior manager the resources and authority to define and launch business-model experiments (Chesbrough, 2007, p. 17).

Cognitive barrier: one of the most researched and widely accepted mental models that drive organizational behavior is the so-called "resistance to change" (Dent & Goldberg, 1999). This mental construct, present among employees of all seniority, hinders with successful change implementations. Kurt Lewin is considered the first scholar who
studied the subject of change, but Dent and Goldberg (1999) performed an extensive review of the discipline in recent years. They assert that employees tend to avoid changes not because they are intrinsically risk-averse, but because they are afraid of the unknown consequences brought by the changes (Dent & Goldberg, 1999). This implies that many change initiatives can be rejected from the outset (Cavalcante et al., 2011), accounting to missed opportunities.

This issue has been previously referred also as the "cognitive barrier" (Chesbrough, 2010), the "dominant logic" (Prahalad & Bettis, 1995 found in Chesbrough, 2010) or "conventional wisdom" (Yunus et al., 2010). The more the change separates from the previous way of doing things, the more this mental barrier acquires strength. Hence, not all business model changes experience resistance, but business model innovation has been often considered as a radical game-changer (Yunus et al., 2010) and it is certainly affected (Cavalcante et al., 2011). In fact, the belief systems held by employees about the aspect of the business model drive the decision-making process and, subsequently, the actions (Aspara et al., 2011).

3.3.3 Strategic Challenges

*Managing the tensions between value appropriation and value creation:* there can be real tensions between the aspects of a business model that create value and those that help to capture a portion of that value (Chesbrough, 2007). This challenge does not specifically relate to the process of changing a business model, but it is an intrinsic element of any business model. However, the process of changing accentuates the need to establish a new equilibrium between these two forces.

Capturing value is critical for maintaining a satisfactory financial position, which is the basis for subsequent investments and the development of long-term strategies. Yet, focusing too much on this aspect might certainly result in hefty profits for the firm in the short term, but the existence of the BM could be jeopardized in the long run. Moreover, if customers will spot an unbalance between the price paid and the service offered, they might be reluctant to purchase it (Chesbrough, 2007). On the other hand, focusing too much on creating value for the customers can create resentment among the stakeholders.

Managing this tension not only represents a challenge from the process point of view (see 3.2.1), but also from the strategic content, since it determines how the company will achieve its objectives. Chesbrough (2010) provides a specific example of this tension: the conflict may arise between the already established business model representing the existing technology, and the one required to exploit the emerging, disruptive technology.
4. Research Methodology

In this chapter, the methodological framework used for information gathering and analysis is discussed. Great emphasis is given to the methodological choices upon which the literature review is based and the criteria adopted to guarantee a satisfactory result.

The thesis represents the conclusion of a preliminary study in the winter 2013, where I studied the academic literature of business model and business model innovation. The aim of the study was to individuate the main trends characterizing the academic research, but the novelty of the topic and diversity of opinions intrigued me to study it more in-depth and make it more applicable for practitioners. This theoretical platform served as a basis for further specification of the research question. Many underdeveloped areas in the business model literature have been considered worthy of further research and the final choice was narrowed down to the following four:

1. How to achieve strategic flexibility or organization ambidexterity during business model innovation;

2. Understand the motivations behind the pursue of business model innovation (instead of other types of innovation), when external pressure is not the main driver of change;

3. Managing the transition from the old to the new business model: critical factors of successful business model innovation initiatives;

4. The main challenges experienced by organizations during the process of innovating the business model.

All of them had an equal appealing to me, but the forth option was seen as more appropriate for a master thesis level, given the time and resource limitations.

4.1 Research Approach

Reaching the purpose of the study demands a sufficient knowledge of the discipline, enough to formulate hypothesis derived from the extant literature, but not enough to test it with quantitative methods. The preliminary study conducted in winter 2013 formed a solid basis. Yet, the knowledge of the challenges related to different types of business model innovation is still an emerging field and our understanding of the discipline is not comprehensive, let alone generalizable. Therefore, the first step was the development of the conceptual framework based on the existing theories, which has been subsequently tested in the second part, the empirical investigation.

"With an inductive stance, theory is the outcome of research. The process of induction involves drawing generalizable inferences out of observations" (Bryman & Bell, 2011, p.13). Despite this clear definition, business research is hardly characterized by this clarity (Bryman & Bell, 2011). In this study, mixed approach, deductive and inductive, was chosen to fulfill the objective. The process of collecting data and the subsequent analysis have been more inductive, since the study concludes with the development of
few theories. On the other hand, the formation of the frameworks can be considered more deductive, since highly grounded in principles of the current literature.

4.2 Research Strategy
Provided that there is not a specific research strategy inherently superior or inferior to any other and each study is unique (Saunders et al., 2011), the usefulness of a method depends on the researcher's ability to generate productive responses and on his capacity to interpret them. According to Saunders et al. (2011), the selection of the research strategy depends on the RQ and purpose, the extent of existing knowledge, the amount of time and other resources available, as well as the author's philosophical underpinnings.

There are six primary research strategies: survey, case study, action research, grounded theory, ethnography and archival research (Saunders et al., 2011). In order to answer the research question, I noted that a multiple case study approach would be most suitable. A case study represents "A strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context, using multiple sources of evidence." (Saunders et al., 2011, p.145). It is the recommended approach to answer the questions "How...?", "What...?" or "Why...?", hence fitting with the Research Question proposed in chapter 1.

4.3 Data Collection
There is a growing recognition within business and management research that individual quantitative and qualitative techniques do not exist in isolation (Saunders et al. 2011). Rather, it is more appropriate referring to mono or multiple methods of data collection. In this investigation, a mixed-method approach is pursued, combining two different sources of evidence, documentation and interviews (Saunders et al. 2011). Even though Bryman and Bell (2011) claim the choice of a mixed approach is still considered controversial by some scholars, they also mention it has grown steadily from the past years and more and more studies rely on it.

Choosing mixed-methods is recommended if they offer the possibility to answer the Research Question in a more reliable way. It is important to emphasize that the case studies will encompass a vast amount of contextual knowledge and the data will always be subject to the interpretation of the researcher. Hence, a triangulation approach was used. Triangulation "Refers to use of different data collection techniques within one study in order to ensure that the data are telling you what you think they are telling you." (Saunders et al., 2011, p.146). Triangulation was accomplished by analyzing documentaries found in the website, as well as reviewing written material sent to us by the respondents

I would also spend little time describing the main choice that guided both the development of the preliminary framework and the interview process. The following figure (Figure 3) represents the intersection between two dimensions: the author's knowledge and what is generally known about the discipline.
What can be found in the extant BMI literature is of significant quality, but highly context dependent. It almost goes without saying that is not possible to draw solid conclusions. The author assumes that the red zone depicted in figure 3 represents the situation underlying this study.

The interviews were conducted in a semi-structured mode, given the explorative purpose of this investigation, as suggested by other scholars (Barriball & While, 1994). Because the objective was to collect the respondents' personal opinion and view on few suggested themes, a semi-structured interview guide was developed. The singular questions were slightly adapted to reflect the specifics of each company, but the general meaning was similar.

In total, six interviews have been set up over a period of 30 days in March 2014. Three face-to-face interviews and three were conducted over telephone. The former were all recorded, while extensive notes have been captured during the telephone interviews. In the last case, the notes were synthesized and the interpretations were then sent to the interviewees for respondent validation. In Chapter 5, empirical data, there is a clear distinction between the interviewees’ statements and the author interpretations.

The interviews' length varied from 30 to 90 minutes. On average, telephone interviews lasted a shorter period of time. Even though face-to-face interviews are preferred for in-depth studies, since enable the grasp of nuances in the interviewees’ behaviors, telephone interviews differ little from face-to-face interviews when it comes to responses. Hence, they represent a valid alternative in case of geographical distance or limited resources (Saunders et al. 2011).

All the interviews began with a brief introduction of the study, followed by an explanation of why the interviewee's organization was chosen as a suitable candidate for this investigation. The second question consisted in the comparison between the old business model and the new business model, showing a print out of Johnson et al. (2008)'s business model framework. This question served to analyze the awareness of
the respondents about business model innovation. The following questions was deliberately kept very open: "What are the three most important challenges faced by your company during the process of innovating the business model"? This broad question, coupled with the fact that no interview guide has been distributed before the interview took place, was meant to receive an unbiased perspective on the challenges faced. In fact, our knowledge is still limited and the honest answers might have generated valuable insights.

The remaining questions were organized around three themes: process, people and strategic challenges. For further details, an appendix with the interview guide is provided. Yet, the discussion was mainly built upon the interviewees’ answers. Extensive research of the interviewees’ background and their companies has been performed beforehand, aimed at spotting common areas of discussion and create a pleasant atmosphere to facilitate the talking (Bryman & Bell, 2011).

4.4 Literature Review: Method

As aforementioned, this study follows a separate review of the business model literature, whose findings have been summarized in chapter 2. In the last fifteen years, the business model domain gained popularity both in the mainstream literature and among scholars. The number of publications containing the name business model in the title, or as a keyword, skyrocketed (Amit et al. 2011; Ghaziani & Ventresca, 2005). To conduct this review, I initially searched for articles published in the Thomson Reuters database Web of Science. The search strings were “business model” and "business model innovation", in article titles or keywords, to make sure that business models were explicit objects of research.

This initial search revealed more than 5,000 results. Certainly, not all of them were of particular interest for this paper, since dealt with the concept of business model to explain arguments not relevant. Few provided useful insights. To exclude non-relevant articles and ensure a minimum level of quality, the following criteria were established:

1. I restricted the research to only articles appeared in leading academic management journals during the period 1975-2013. I followed the suggestions made by Azar & Brock (2008) and I used the Impact Factor (IF) as determinant of the journal quality. The minimum threshold was set to IF=1. The initial list of academic journals included Journal of Finance (IF= 4.33), Administrative Science Quarterly (ASQ, IF= 4.18), Strategic Management Journal (SMJ, IF= 3.56), Journal of Marketing (IF= 5.47), Journal of Management (JOM, IF= 6.70), Journal of Management Studies (JMS, IF= 3.79), Research Policy (RP, IF= 2.85), Journal of International Management (JIM, IF= 2.20), European Management Review (EMR, IF= 1.21), Management Science (MS, IF= 1.73), Journal of Product Innovation Management (IF= 1.57), Academy of Management Journal (AMJ, IF= 5.68) and Academy of Management Review (AMR, IF= 7.89).

To these, I added few practitioner-oriented journals, namely the California Management Review (CMR, IF= 1.67), Harvard Business Review (HBR, IF= 1.65), and MIT Sloan Management Review (MSM, IF= 1.14). Other Journals with a significant ranking revealed to be a valuable source of articles in the topic of business model innovation, such as Long Range Planning (LRP, IF= 3.66) and
Strategy and Leadership. These journals provided a solid ground for this research and the majority of references belong to them. A specific mention goes to two articles that I was lucky to find early in the research process: "The business model: recent developments and future research" (Amit et al., 2011) and Keywords and Cultural Change: Frame Analysis of Business Model Public Talk (Ghaziani & Ventresca, 2005). These two sources offered a constant guide throughout the project and offered a good filter for the most relevant studies.

2. Further articles were identified through cross-reference searches and snowball techniques, which are essential to identify additional papers. The ones included in the review either have been highly cited (> 50 times) or, if more recent, contained well-thought analysis worth of a reference.

Moreover, working papers of prominent scholars, who have extensively contributed to the literature of BMI, have been taken into consideration (examples are Amit and Zott (2013) and Markides & Oyon (2010)). This is due to the fact that the field is developing fast and, during the period of writing the preliminary report and the completion of this thesis, several important studies might have been conducted.

3. Date of articles. As aforementioned, research and studies on business model innovation have emerged only in the last fifteen years, but the progress and the evolution of the concept has changed dramatically since the very first publications. Although theoretically underdeveloped, the business model research is moving towards a conceptual consolidation (Amit et al., 2011, p. 1038 found in Lambert & Davidson, 2012).

Given the fast evolution of the subject and the need to move forward the research, I mainly relied on the latest publications: the majority of the academic sources utilized have been published in the last five years. Nonetheless, the most recent comprehensive review of the BM literature dates back to the year 2010 (Amit et al., 2011). Hence, I personally conducted an additional review of all the articles published from 2010 to 2013. The research produced 295 results. An initial analysis of these articles, performed by reading article titles, abstracts, and introductions, identified and eliminated the ones not relevant for the purpose of this paper.

4.5 Sample Selection

The Research Question and the theoretical framework represent the most important delimitation criteria for the sampling choice (Miles and Huberman, 1994). Given the novelty of the business model innovation concept, the available sample was automatically restricted to the companies that created a new business model (either for the industry or the organization itself) and were aware of it. The sample selected was partially discussed with the supervisor, who actively contributed to the search of suitable options.

According to Bryman & Bell (2011), the universe of units from which the sample is to be selected by researchers is called population. One method used to select the sample is the so-called judgment sampling (Bryman & Bell, 2011). It basically consists in handpicking individuals from the population based on the researcher's knowledge and judgment. In total, three different companies (Tylö, Höganäs and Bit4id) and two
advisory firms (Beople and BCG) were studied, in order to develop an understanding of their approach to business model innovation. This choice was done in order to get an inside view, as well as a perspective across industries which are very different. Tylö and Höganäs have already participated in similar studies, while BCG, Beople and Bit4id have been chosen for their affinity to BMI. Data on each case was gathered by interviews with one or two representatives from each company. Since business model innovation is usually discussed at a managerial level, only candidates with executive positions were taken into consideration.

Table 5 - Interviewees' information

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Length</th>
<th>Position</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krister Persson</td>
<td>11/03/2014</td>
<td>87min</td>
<td>CEO</td>
<td>Tylö</td>
</tr>
<tr>
<td>Mikael Lundstrom</td>
<td>26/03/2014</td>
<td>44min</td>
<td>Sales manager</td>
<td>Tylö</td>
</tr>
<tr>
<td>Antonio Chello</td>
<td>10/03/2014</td>
<td>31min</td>
<td>CEO and founder</td>
<td>Bit4id</td>
</tr>
<tr>
<td>Per Engdhal</td>
<td>19/03/2014</td>
<td>56min</td>
<td>Vice president</td>
<td>Höganäs</td>
</tr>
<tr>
<td>Matteo Fusco</td>
<td>14/03/2014</td>
<td>37min</td>
<td>CEO and founder</td>
<td>Beople</td>
</tr>
<tr>
<td>Stuart Gander</td>
<td>17/03/2014</td>
<td>39min</td>
<td>Principal</td>
<td>BCG</td>
</tr>
</tbody>
</table>

All interviewees have been briefed in advance about the main themes of the research. Nonetheless, a print out of the Johnson et al. (2008)'s business model framework has been used as guidance throughout the whole discussions. On behalf of their organizations, all interviewees acknowledged relevant changes in the four dimensions of the business model, either compared to a previous situation or with respect to the typical structure of business models prevailing in their industry sector. Interviewees' quotations are denoted with italic type font, while the author's analyses and interpretations are denoted in normal style.

4.6 Evaluation of Research Methods

To evaluate the quality of the research findings, I discuss the research methods in light of Guba and Lincoln’s (1994, found in Bryman & Bell, 2011) four criteria of trustworthiness:

**Credibility:** by recording the interviews and gathering respondent validation on the synthesized notes, I believe that a sufficient degree of credibility has been ensured.

**Transferability:** one of the biggest limitations of the business model theories is their context-dependence. Many findings are industry specific and do not allow a valid generalization. Six interviews are somewhat limited in order to transfer the findings to all sectors. Still, in order to increase the transferability, I deliberately asked the two advisory firms, which have worked with multiple clients on the topic, about their perspective. As previously explained, this approach of combining multiple observers can be seen as a triangulation and thus increase the transferability of the study. Nevertheless, the limitations of a small sample still exist and the differences among the companies interviewed, in terms of size and industry, are significant.

**Dependability:** also named "reliability", it refers to the agreement between the researchers over the observed events (Bryman and Bell, 2011).
Recordings, transcripts and notes from the interviews are not attached to this document for several reasons, including sensitive strategic information and different language (Italian).

Confirmability: confirmability refers to the degree to which the results could be confirmed or corroborated by others. The choice of conducting this study lonely has been carefully weighed ahead of time, well aware of its pros and cons. During the interviews, in order to minimize the lack of a partner’s judgment, I often asked confirmation questions such as “According to your last statement, you think that...” or “Am I correct by saying that your opinion is...”.

In order to increase the confirmability of the study, many interviewees’ statements have been presented in a way that clearly separates them from the authors’ interpretations. Still, complete objectivity is difficult to achieve, but confirmability has been also pursued by structuring the interviews in the aforementioned way.

4.7 Final Remark
More interviews could have been conducted with people from other industries, or more from the same industry in order to gain more transferability. However, the purpose of this study is to have an overview of the challenges affecting business model innovation as a whole. Further studies could restrict the scope to a singular industry, but this is possible only after achieving a good understanding of the topic. In hindsight, the information shared by the advisory firms has been of significant value. In particular, Matteo Fusco, on behalf of Beople, has offered fascinating insights on the practical application of the business model theory and frameworks.

It is also worth noting that interviews do not represent the perfect source of evidence. Human beings might be subject to unconscious biases, and depict the reality incompletely or differently from other members of the organization. Personal memories and reconstruction always reflect a subjective point of view.

Lastly, the sampling methodology did not produce the expected results, since the original aim was to choose companies belonging to the business model transformation quadrant.
5. Empirical Data

The five companies, which agreed to share their views on business model innovation, are:

**Bit4id**: founded in 2004, Bit4id is a leading company in Europe for digital security. Headquartered in Naples, Italy, it has different multiple offices in Spain, UK and South America.

**Höganäs**: founded in 1797 as a coal mining company, it is now the world’s leading producer of iron and metal powders. Listed on the NASDAQ stock market, it has more than 1700 employees across 15 countries.

**Tylö**: Tylö AB is a Swedish sauna, steams and bathrooms manufacturer. It is part of the TylöHelo group, a global leader in the supply of high-end saunas.

Two additional interviews have been carried with business model innovation experts, who can offer an unbiased perspective due to the nature of their job:

**Matteo Fusco**: Founder and CEO of Beople, marketing strategist and business model designer. Previously, he has worked at the Italian Ministry of Finance as scientific contributor.

**Stuart Gander**: Principal at the Stockholm office of Boston Consulting Group. Stuart has been recommended as an expert in business model innovation by the BCG office, possessing extensive knowledge of the field.
5.1 Bit4id

Introduction to the Company
Bit4id was born in 2004, from the risky bet taken by the four co-founders, who gave up important job positions in the multinational IPM group in order to pursue the new project. The company employs 54 people and 30% of its revenues are generated from markets outside Italy. In 2011, Bit4id received the Unicredit award "OK Italy" as one of the 15 Italian more innovative SMEs. They have a novel value proposition in that they are one of the few companies that offer both hardware and customized software solutions in the field of computer security and digital identity. The core technology is based on the innovative smartcards, namely cards provided with a chip able to protect data stored within it.

The interviewee was CEO Antonio Chello - one of the co-founders of Bit4id. He has more than 30 years of experience in the IT industry, where he held various management positions in Olivetti and IPM group. Serial entrepreneur, he founded other three companies: IPMotive, Airq Networks and Gemini s.r.l.

Business Model Innovation at Bit4id
To understand why Bit4id can be considered as an example of business model innovation, it is necessary to offer a brief excursus of the circumstances under which the company was born.

Back in 2004, Antonio Chello held a management position at IPM group, whose core business was the production of telephone boxes. The diffusion of portable devices was slowly eroding the share of the company primary market, "an irreversible process", according to Antonio. Due to the likely evolution of the markets, Antonio asked his company to take over a minor business unit whose main focus was the development and manufacturing of smartcard. At that time, the smartcard's technology was mainly used for mobile devices sim card, whereas only 5% for digital identification systems. Against all odds, Antonio decided to focus his attention on this last segment, which was then underdeveloped. The first success came when he convinced the Buffetti group to include smartcard readers in its offering. Notwithstanding the first positive results, the market was still in its infancy, with a slow growth rate. These numbers were not sufficient to support the difficulties of a big corporation with 1200 employees, such as IPM group. According to Antonio, here came the first two challenges:
"IPM did not realize that an important shift was happening in the market and the company was not willing to allocate a sufficient amount of resources for the development of minor, but potentially rewarding activities. I do not know if the most senior executives were focused only on the short term or decided to allocate all resources in an effort to turnaround IPM core business"

Antonio Chello

"The company did not fully support me and we agreed on a consensus separation where I could continue the project alone. Therefore, the side unit was spun-off and I founded Bit4id in 2004"

Antonio Chello

Bit4id was born with a complete new value proposition in comparison to what was then offered by the market.

"In 2004, the magnetic stripe cards represented the bulk of the market and were used by all major institutions, such as banks, governments and health agencies"

Various issues characterized those cards. Magnetic stripe cards have minimal security. Because data is very easily read from and written to a magnetic stripe card, information can be easily stolen and a duplicate magnetic stripe card can be created, posing serious security problems to the owner. Magnetic stripe cards store only a limited amount of data, not encrypted and therefore exposed to the threat of identity fraud. Moreover, the magnetic stripe behind the cards could be irreparably damaged in the presence of a nearby magnetic field or repeated usage.

Bit4id addressed all of these problems by proposing plug&play security products and appliances, which guaranteed maximum security and usability. The company value proposition was (is) based on four key elements:

- Zero Installation: reduced installation and management costs.
- Portable: cross-platform usable everywhere, any time.
- Everywhere: our technology can be used anywhere. Without any additional hassle.
- Zero footprint: no trace left on the systems hosting transaction/processes.

The smart cards embedded with microprocessors could encrypt and securely store information. They used secure chip technology and were designed and manufactured with features that help to deter counterfeiting. At the very beginning, the company focused only on smartcard readers, but over the years expanded its offering to complete packages for digital identity.

In relation to the profit formula, Antonio said:

"Our main competitors were big multinational with enormous fixed costs, who were unable to offer solutions at a reasonable price. Bit4id based its cost structure on two pillars: China was chosen for the production of hardware and the software was initially given for free, in order to lock in the customer when they bought the smartcard reader"

Antonio Chello
This initial strategy of pairing low cost hardware with free software allowed Bit4id to sell products at a competitive price and generating a healthy margin model. Unlike big organizations who relied heavily on their brands and image, Bit4id realized the importance of leveraging existing distribution channels and creating partnerships with existing players who had a much wider customer base.

"Being a small company, we could not afford the development of our own brand, both in terms of resources and time"

Antonio Chello

Bit4id is characterized by a light and flexible structure based on a network of specialized partners and consultants. The company closed important partnerships with Buffetti group and Zucchetti and by the year 2010, more than 2 millions smart card readers were sold. Bit4id started important collaborations with CAs (certification authorities), entities that issue digital certificates: Infocert (supplier of the Italian Chamber of Commerce) and Postecom are the two biggest ones.

In addition, Bit4id devices are directly or indirectly (through partners) sold to public administrations and financial institutions. Prominent clients are the Portuguese parliament, Spanish central and local Public Administrations and various Italian hospitals. Lastly, Bit4id produces simple and ready to use products, intended for small companies and retail consumers such as lawyers and professionals. These devices are mainly commercialized via e-commerce websites (www.bit4shop.com and www.smartcard360.com). The wide offering (smartcard, token, miniLector, smartbank, smart systems etc.) paired with a selection of diverse distribution channels proved to be a successful strategy, allowing Bit4id to reach a wide success in few years.

Antonio also mentioned the "affordable customization" as a key differentiator of Bit4id business model:

"Initially, the market was characterized by sheer presence of expensive and complex system for managing identities and permissions inside big companies. These system were completely customized, but came with a hefty price of hundreds thousands euro. Our core offering was based on customized software with a supporting hardware. For instance, we developed the Spanish electronic identity card, available in four different languages: Spanish, Basque, Catalan and Galician. This is the level of customization we are able to reach, by offering an affordable solution"

Antonio Chello

From the description of Bit4id business model, I would consider the company as an example of business model revision, with a significant difference in the activities performed in comparison to IPM group and other competitors. Regarding the structure of Bit4id business model, it is worth mentioning both its ability to commercialized the products through disparate distribution channels and the opening to the end-consumer market, which was previously absent or trivial.
Challenges Faced by Bit4id
During the interview, Antonio Chello revisited all the challenges faced during the process of developing Bit4id, from the very beginning to the present days. Hence, the challenges will be presented in chronological order.

When Antonio was still working within the IPM group, he underwent the first strategic challenge. Recalling the definition provided in chapter 3.2.3, capturing value is critical for maintaining a satisfactory financial position, which represents the basis for future investments and long-term strategies. IPM was not able to balance the tension between value creation and value appropriation. IPM group faced the challenge arose between the business model already established for the existing technology, and the one required to exploit the emerging, disruptive technology (Chesbrough, 2010). In fact, the smart card devices were still in the introductory phase and the company did not commit itself to further advance it, deliberately avoiding the support of two different business models simultaneously.

The scarcity of financial resources represented another critical challenge at the beginning:

"The spin-off did not really change anything from that perspective. IPM group did not fully believe in the segment of smartcard, beyond having serious financial problems in its core business. Bit4id was founded with a seed capital of €20,000."

Antonio Chello
Fortunately, the basic technology behind the smart card readers was already created within IPM group. By the time Bit4id was spun-off, Antonio could focus on the commercialization of this technology, partially avoiding the costly development of a technology ex-novo.

Despite Bit4id headquarters in the Business Innovation Park Science City in Naples, Antonio believes this is not a favorable geographical position for establishing a technology company. Naples was chosen for familiar matters but it had serious fallout in the search for talents:

"I grouped together people whom I previously worked with at IPM. I trusted them and it was the best possible choice"

Antonio Chello

The founding team was sufficiently knowledgeable of the software and systems for security identification. Nonetheless, the recruitment of skilled people represented a hurdle over the years:

"Fresh graduates in computer science and IT related fields have a poor exposure to technologies for digital security, since universities emphasizes the importance of applied technologies"

Antonio Chello

This represents one of the reasons that "forced" Bit4id to open offices in foreign countries, such as Spain, Portugal, UK and Peru. In addition, Antonio believes the local presence functions as a distinctive mark in the eyes of the customer. The recruiting and development of skilled people was definitely a big challenge for Bit4id, while the creation of a culture that stimulates groundbreaking innovations came naturally. Having been accepted in the Business Innovation Park along with other 15 companies helped fostering a culture characterized by innovative values: the development of a non-hierarchical engaging working environment and accepting and encouraging challenges aimed at creating the most innovative solutions. Certainly, this has been possible since Bit4id spun-off from the IBM group. If it had continued the development under the wings of the parent company, it would have been unlikely the development of this culture.
5.2 Tylö

Introduction to the Company
Tylö AB consists of 130 employees, out of which 90 work in its Swedish and Finnish production facilities. In 2012, the company achieved a result of SEK 250M (€30M), accounting for 40% of TylöHelo group revenues. The company exports to 90 countries, which represent 75% of the total turnover. In 2008, after Tylö AB and Helo Group merged together, Krister Persson became the new Tylo CEO and initiated an organizational overhaul, with the aim of strengthening the position in the SPA and sauna market (B2B), but also entering into the steady growing segments of bathroom and fitness (B2C). Two interviews have been done with:

Krister Persson, who was appointed CEO in 2008, after the merger between Tylö AB and Helo Group. Before joining Tylö, he held different management positions in various organizations across the world.

Mikael Lundstrom, sales manager at Tylö, company that he joined in 2010. He is responsible for sales in the Nordic region.

Business Model Innovation at Tylö
Ever since the foundation of Tylö in 1951, the company has taken a leading role in the development of the sauna industry. The company committed to advancing materials and understanding the aesthetic impact of saunas and steam rooms has always been one of the driving factors for the innovations that the company is offering in this industry. Since Krister Persson was appointed CEO, the company has been working on revamping its brand image, in order to strengthen its position in a growing and high potential bathroom market (B2C), whilst still capturing the rents from their stable and leading position in the Spa and Fitness market (B2B).

Hence, the first change in the business model took place in the customer value proposition. Not only did Tylo continue with its typical offering of wooden sauna that characterized Swedish houses in the 1970s and 1980s, but also it added new beautiful pieces of furniture, such as shower/steam cabins, that can be fitted into normal bathrooms. This determined the first milestone of a new strategy that would have helped Tylö entering the B2C market.
"Back in 2009, Tylo brand was almost exclusively associated with sauna, the traditional wooden box which you normally hide in the basement or you place it in a garage. That image of a sauna was 100% masculine, too hot and dry for the fair sex [...]. After talking to many wives, I realized an untapped opportunity in this segment and this led to the creation of the soft-sauna concept with aromatherapy fragrances, which specifically addressed the women target"

"After collecting much information, we knew that kitchens and bathrooms represented the top renovating objects in houses and ladies are the decision-makers in that respect"

Krister Persson

In addition to the bathroom segment, Tylö noticed an increasing interest for well-being solutions, such as SPA and fitness centers. The company realized that the same structures could have been recreated at home, in a much smaller scale but of equal effectiveness. Therefore, Tylö offering expanded to products designed with a beautiful aesthetic touch (glass made, modern Scandinavian look) that were commercialized as "pieces of furniture".

One of the key resources necessary to deliver the customer value proposition is represented by the brand image. Back in 2009, the company was spending an inordinate amount of money of promoting Tylö's brand within the sport community

"Tylo was associated with sport activities such as Premier League football matches or the ice hockey world cup. The Tylö brand was well known, but the company was not able to generate enough sales from this strong image. People thought the Tylö turnover group was twice as much as it was in reality. Therefore, I realized the enormous growth opportunity that lied ahead"

Krister Persson

This communication strategy adopted by Tylö before 2009 reinforced the gender bias towards the saunas and Krister was resolute in changing this perception. The mission and vision statements together have resulted in a new slogan, which better fit the new strategic goals: Tylö, for the senses. It also shows that Tylö went from a product focused to a market focused company, placing the customers' needs at the center.

Another key resource of Tylo is its distribution channels. The company does not sell directly to end-consumers, but it has developed a wide distribution network across 90 countries. Yet, in 2009, most of the existing distributors belonged to the SPA/fitness segments and Tylö had to find new partners in order to commercialize the bathroom-related products. Furthermore, the company has recently planned to market its products via an e-commerce website, which is still under-development. This new distribution channel will go a long way in moving Tylö closer to its customer base and will shift dramatically the structure of the business model. The company relies strongly on its worldwide distribution network, which certainly allows Tylö to have a presence in many countries. However, this sales model adds one more layer between the buyer and the seller, increasing the overall cost and "filtering" the precious information and feedback offered by the customers.
According to Krister, the profit formula has not been revolutionized, even though Tylö expects to capture the bulk of its future growth, thereby its profits, from the bathroom segment. When Krister has been shown the Johnson et al. (2008)'s business model framework, in relation to the profit formula he said:

"Definitely there have been some constant improvements, in particular in relation to the cost structure. Material costs account for 75% of our total expenses and I am always challenging our production manager. However, no revolution has happened on this side because every organization is composed of human beings. You need to be very careful and prioritize the changes, since people should have time and internalize the process"

Krister Persson

An important shift took place in the rules and metrics category. As aforementioned, in 2008 Helo and Tylo merged to form the world’s largest sauna and steam manufacturer. This meant moving from a family-owned business to a private equity-owned company and the change in ownership was invariably accompanied by a new mentality. The emphasis shifted to achieving future growth, with a positive Return On Investment and a more customer driven approach. Despite the strategies of private equity firms are well known, they might wreak havoc in a traditional family-run business.

The interview with Mikael Lundstrom had a much closer focus to the sales and distribution network, revealing important details on how Tylö reach its customers. Since he was appointed sales manager, Tylö revolutionized its Swedish distribution network (Sweden accounts for 25% of total turnover). Previously, Tylö's products were sold by as many as 600 different distributors, spread across the Swedish region. With many of them, Tylö had a long history of collaboration. Mikael decided to drastically reduce the number of distributors to 30, the ones more knowledgeable, profitable and with a higher customer base. Those have been named the 30 premium distributors and receive ongoing support from Tylö. In addition, a list has been created with high-potential distributors, which are constantly monitored. Narrowing down the number of distributors allowed Mikael and his sales reps to spend more quality time with distributors, coaching them also on the bathroom concept products.

The way Tylö reaches its customers has significantly changed in the recent years. The following picture outlines Tylö's distribution network before and after:
By having a direct contact with all the players of the distribution chain, Tylö limits the mark up and collects primary information.

Given all the information above-mentioned, I consider Tylö as an example of business model transformation, whose transition process is not yet completed. Therefore, I would place it in the top-right quadrant of the Business Model Innovation Map.

The reasons behind this choice are multiple. First, despite the bathroom and sauna markets have some commonalities, they address different customers (male vs. female) with distinct needs. Changing the perception of a brand is certainly an innovative step, but not sufficient itself. Second, shifting to a market-driven mentality has a cascade effect on many activities, such as brands, distribution channels and people. Lastly, the market-driven approach implies a significant shift in the sequence through which activities are performed: this represents exactly the definition of "change in structure" that has been provided in chapter 3 (Amit & Zott, 2012). Being a market-focused business means looking outside the company for the inputs and signals necessary to take strategic decisions. It means knowing your clients, understand what is happening in the environment and anticipate your competitors' moves. On the other hand, product-led companies develop products/solutions from the inside out, relying on internal assumptions about the future market needs. For Tylö, this has translated in relevant changes in the sales and distribution network (Figure x), in the customer interaction process and in the value creation activities (from inside to outside).
Challenges Faced by Tylö

Similar to Antonio Chello, Krister Persson presented the key challenges faced by Tylö in a chronological order, with the year 2009 representing the beginning of his tenure. The first challenge faced was to expand the Tylö brand into new segments, while preserving its already strong position in the traditional sauna business. According to Krister, this was particularly challenging because the employees were worried about the new ownerships. They feared this new strategy was a mere stratagem devised by the new owners in order to drain as much resources out of the company as possible. Therefore, bringing people on board was absolutely the top priority for Krister:

"If you don't get the people with you when you form a strategy, then is a problem. You can use your nice slides and PowerPoint pictures, but they will not understand it. Hence, when I came in, I spent the first period just watching and listening other the people concerns"

Krister Persson

After addressing the people concerns, it was necessary to understand which markets were more suitable for Tylö. Hence, the next natural step was represented by the actual collection of data, in order to spot trends and unexplored niches. All the gathered information was narrowed down to few unrelated segments: design, women, bathrooms and SPAs

"[..]Along that line, with bathrooms, renovations and ladies' decisions, we started developing new products characterized by Scandinavian design, glass, and modern look. We promoted them as bathroom furniture (big emphasis on furniture)"

Krister Persson
With the development of new products, it came the challenge of communicating that Tylö was not only a sauna manufacturer. Hence, the concept of soft-sauna was born, which is anything but a simpler way to communicate a steam-sauna combined product. This new product was heavily promoted along with pictures of only women, in order to change the perception of Tylö's brand. The same is valid for the new tagline "Tylo for the senses" or "Tylö lifestyle".

Communication represented also big challenge for Mikael Lundstrom. The decision of closely collaborating with only 5% of Tylö's previous distributors clearly disappointed the excluded ones.

"The 570 distributors excluded from the premium list do not see Tylö as a good company to work with. You have to talk to them and explain that they can buy from us, but you also need to understand our situation. We can not afford to send a man to visit you 4 times a year...But the biggest challenge is communicate to them how we are working now"

Mikael Lundstrom

Distributing the new products proved to be a significant hurdle, since sauna distributors were not used to discuss "bathroom-related" matters. Generally, bathrooms and saunas are sold through different distribution channels. Krister and his team devoted much of their attention in understanding how to slide into the network of bathroom intermediaries, since there was no time to build another network.

"It was very difficult. You need to convince them: Sauna, steam-showers, and mmh..They seem very technical things (Imitating a comment from a fictitious bathroom retailer) and we are not used to it. It is a very traditional industry"

[Krister Persson]

"When you develop something new, change distribution channels is paramount. Many people focused too much on the product and after they have it, they do not know how to sell it. A distribution channel might be suitable for the old product, but not for the new one"

[Krister Persson]

"We have tried many different shops, but only few succeeded so far. Our products are quite difficult to understand, since it is involved electricity, water etc. It is not easy to bring new distributors on board"

[Mikael Lundstrom]

Not only was it difficult to convince the bathroom sellers, it was necessary to coach them on how to display properly the products in order to appeal the customers. Integrating steam-saunas into the typical interior design of bathroom was important and required a lot of energy from Tylö. In addition, the change in the distribution network depicted in figure x created dissatisfaction among wholesalers in particular. They were afraid of losing customers, who could then buy Tylö's product through multiple channels. In fact, for Tylö is more profitable to sell via e-commerce stores, which have less expenses and can offer a more aggressive prices.

"Internet shops are very good customers for me. They do not cost me too much, and I do not spend neither time nor significant resources on them [...]. But you
have also to exhibit saunas to the customers who are willing to touch and feel them. This is why our premium wholesalers get a percentage of our web sales"

Mikael Lundstrom

"Our premium distributors do not like X (e-commerce shop), because it sometimes dump the prices down. I had to fight to keep a quiet atmosphere among our distribution players"

Mikael Lundstrom

Slowly, Tylö is adopting the same approach to enter the fitness industry, convincing companies to "package" fitness equipment with specific steam solutions.

Another significant challenge is represented by the attitude of internal people. According to Krister, organizational changes are always paired with people issues:

"You have to accept that some people need more time than others. Be prepared to face naysayers who resist to change and take it as a challenge [...] You cannot order them what to do, but it is fundamental to communicate often with clear messages (emphasis) and show small progresses"

Krister Persson

Within Tylö, there are people more positive towards the new company's strategy, while others did not fully embraced from the beginning. According to Krister, this should not be seen as a negative issue, but rather a representation of diversity within the company. In any case, it is fundamental to put yourself into your employees' shoes, understand their fears and guide them towards a very clear and defined vision.

Regarding the learning of new skills, Krister believes that Tylö employees were already equipped with the right ones, at least from the product manufacturing point of view. However, a not so trivial challenge was represented by the change in mentality that was expected from the employees.

"Many of them were reluctant to associate Tylö with a female figure"

Krister Persson

Changing the internal culture was definitely tough for Krister and he is currently addressing this issue by identifying those people who are more inclined to step-back and he spends time with them each morning, reinforcing the idea that the change is necessary:

"I must admit that, compared to other situations where I was previously involved and taking into consideration the Tylö background and the scare of the new ownership, the amount of doubtful people here is much higher"

Krister Persson

Along the same lines is Mikael Lundstrom. Shifting from a product to a market oriented company means that all employees should put the customers' needs first. Developing an efficient customer service represents the first step towards the new direction and Tylö had initially few problems. Previously, the singular distributors handled the incoming customer calls. This clearly generated poor results and a lack of accountability:
"When you have 600 distributors, you might call the one who does not anything about our products because saunas are only a small part of their shops. So the end-consumer did not get any help”. Now everything is managed in-house, but I hope in the future we can transfer this task to our trusted premium wholesalers"

Mikael Lundstrom

Customer service was only one of the issues. According to Mikael, one of the biggest difficulties that has not been overcome yet is the collaboration between the production and the sales/marketing units. Tylö deals with professional customers (swimming and spa centers) who often have specific requests for the products. Before 2009, Tylö did not take into consideration those requests, but now the company listens carefully to these inquires and leverage them as a method to develop new products

"When I present a customer request to our production people, they often say (imitating them): "Mmmh.. this is a different wood..we do not have it in our stock." It is a big effort to convince them that this is what customers want"

Mikael Lundstrom

Moving to the management group, Krister did not believe Tylö had the right leadership team at the beginning of this journey. Since he was appointed CEO, three out of eight people of the management group have been replaced. According to Krister, having the leadership team is crucial in any changing process. They are the ones responsible for spreading the message across their own department. In total, Tylö changed seven people since 2009

"If you can not have them on board, how can you expect to get traction from all departments?"

Krister Persson

However, according to Krister, finding the right people was not a difficult task. According to his words, he relies on an excellent recruiting company who restricted the selection down to five possible alternatives. Then, each of them had a private conversation with Krister.

"After 7-8 minutes, I read his (the candidate) mind. I see how he talks, how he expresses himself, his personality.. I have never never never employed anyone with the right competence, but a wrong fit into the corporate culture. It is a catastrophe"

Krister Persson

From this statement, it is clear that personality trumps competence in the choice of the right leadership team, but for Krister it was not a particular daunting challenge he faced.

Lastly, Krister mentioned that the path from expanding Tylö operation was not a straightforward one. It was certainly characterized by partial failures, such as meetings with potential new distributors that were turned down or the lack of traction (sales) in certain moment. However, Krister regards himself as a very optimistic person, he sees hurdles as challenges to be overcome and his long experience provides a safe cushion that prevents negative mood. Hence, he did not suffer of low morale
"I have a lot of confidence in myself and I am not scared of any conflict or setbacks. I even generate conflicts sometimes within my management team, in order to challenge people and keep the attention high"

Krister Persson
5.3 Höganäs

Introduction to the Company
Höganäs AB is a Swedish multinational based in Höganäs, leading producer of powdered materials. It operates in 75 countries and has a base of some 2,650 customers worldwide. Höganäs AB has two main business areas, components and consumables, with a total turnover of MSEK 6,712 (2012). In the Components business area, the main customers are component manufacturers in the car industry, as well as the garden and tool industries. In the Consumables business area, customers are mainly OEMs (Original Equipment Manufacturers), active in many different industries and sectors like the food industry, the automotive industry, chemical and metallurgical process industries and the welding industry. In recent years, Höganäs is expanding into new markets, such as 3D printing and electric drive systems, in order to realize its vision of "pushing the limits of metal powder".

The interviewee was Per Engdahl, vice president for the European region and member of the executive committee. He holds a degree of M.Sc. in metallurgy from the Royal Institute of Technology in Stockholm. After joining Höganäs in 1985, Mr. Engdahl has held several managerial positions on different levels, mainly within the areas of Sales & Marketing and R&D.

Business Model Innovation at Höganäs
Before discussing the specific traits of Höganäs, I would clarify one fundamental aspect of the company. The company was founded in 1797 as a coalmine by Count Eric Ruuth, and it has survived more than two centuries by transforming itself many times. In 1825, Höganäs entered the construction business, beginning the production of fireproof bricks. This was soon followed by the creation of salt-glazed stonewares, which were extremely popular in the 19th century. Another turnaround took place at the beginning of 1900, with the born of the "Höganäs method". It consisted of leveraging coal to produce iron capsules. The mining business ceased in 1979 and the company switched to a producer of iron and metal powders. The last decades are characterized by another important change in Höganäs business model, started with the sale of components, namely finished parts make of metal powder. Currently, this business segment accounts for 75% of the total sales. The remaining part is covered by consumables, where metal powder is primarily used as source material in metallurgical and chemical processes, brazing, welding surface coatings and food.
This short historical description demonstrates that Höganäs represents one of the most noteworthy examples of business model transformation. I would have definitely placed the company in the top right quadrant of the Business Model Innovation Map, if I had considered the whole history. Nonetheless, this research's focus is on the challenges faced by the company in doing business model innovation and it would have been impossible to collect primary data of a two hundred years history. Hence, the research window has been restricted to the last 20 years, where Höganäs has certainly innovated its business model (as discussed later) and the collection of primary data is feasible. In conclusion, the subsequent information will refer only to Höganäs' core business and the last three decades.

With the nomination of Alrik Danielson as CEO of Höganäs, the company moved from a product-oriented to a market-focused strategy. In 2006, Höganäs started to monitoring and reporting its sales in relation to applications and customer segments, the first step toward the new strategy. Two business units were created, consumables and components.

According to Per, out of the four constituents of Höganäs business model, the customer value proposition is one that has been heavily transformed. Previously, the main offering was represented by the products themselves, which have always been considered of high quality. The business was purely transactional, with the customers buying the products and pay for them. In the most recent years, the Höganäs value proposition shifted to a more integrated solution, which combines the products to the technical support and the logistics necessary. Nowadays, the company does not sell products, but it sells integrated packages

"We now provide product and support, combining the value proposition into one single offering. Höganäs has been de-productified and nowadays we are more customers specific"

Per Engdahl

The shift to a more customer-centric mentality was followed by a more tailored approach. The customer was not considered anymore as a "number", but as a unique individual who requires a customized solution to his problems. This forced the company to not consider all the customers with the same type of needs. The change started from the sales process and moved up to the after-sales support and technical training.

"Before we had logistic people talking to customers, we had technical support talking to customers [...] Now, the number one priority is to provide a total solution for the customer and tailor to its needs. This mean covering the whole process, from selling to support and logistic"

Per Engdahl

This new strategy of working end-to-end in the value chain is clearly represented by the following picture, taken from the 2012 Annual Report:
This new strategy allowed Höganäs to significantly widen its product offering, which now includes inductors used in solar and wind power industry, 3d printing and electric drive systems.

The revolution in the customer value proposition has influenced the profit model of the company. By creating comprehensive packages instead of selling individual products and by working closely with the customers, Höganäs realized that the value generated for the clients was far more significant than it was previously thought. Therefore, company adopted a more aggressive pricing policy, in order to capture a good portion of the value created.

"In the last 8-9 years, Höganäs focused extensively on capturing the value, namely increase prices and find out where is the limit"

Per Engdahl

Regarding the other two dimensions of Höganäs business model, key resources and key processed, Per says that minor but constant improvements have been achieved but there has not been any dramatic change. He specifically refers to "incremental changes". However, he claims that the structure of the business model has significantly changed in the past two decades. He specifically refers to the process through which the different departments interact together in order to deliver value to the consumers. To explain this concept, Per makes a very interesting comparison between the hierarchical structure of Höganäs' business model twenty years ago and the process-oriented structure that characterizes the organization these days. It means that decisions are data-driven and based on customer satisfaction metrics, quality, timeliness, and cost.
"I would say this has been the biggest change in Höganäs business model. This has also been very important in driving incremental improvements within the company"

Per Engdahl

"To summarize, when it comes to the individual pieces of the organization, they have not really changed. The way we utilize them and combine them together is what has really changed"

Per Engdahl

As a result of the information given, I would place Höganäs in the top-left quadrant of the Business Model Innovation Map. The customer value proposition has changed dramatically, but it represents only one of the four dimensions of a business model. The profit formula has been improved but, from the information received, it was not a total revolution. For these reasons, I would consider a low to medium degree of change in activities. From the structural point of view, Höganäs has totally rethought the sequence through which it delivers value to the customers.

Figure 8 - Höganäs placing in the business model innovation map

Challenges Faced by Höganäs
Mr. Per Engdahl opens its remarks by saying that Höganäs had for the last 20 years a very good position in the market and the profitability was also important. The company has tried to embark in different business model innovation initiatives, but when the core business goes well, the people come lazy and used to a certain routine. Therefore, these BMI initiatives were not driven by an urgent need and they lack the motivational boost to make them succeed. They were always considered as "side projects".
According to Per, Höganäs failed to leverage its capabilities in order to enter new markets or businesses. He considers that as a resource allocation problem, which is currently afflicting Höganäs. It is a partial challenge, because the company has not really experienced any serious negative effects, but this lack of business model innovation poses a serious threat in the long-term.

"The ratio between Höganäs core business and the other minor activities has remained constant over the years, while I would like it to decrease"

Per Engdahl

According to Per, the main reason of why this has not happened is that the expansion towards new markets often require a different set-up (business model). This represents a big challenge for Höganäs, given the strength of its main market. Therefore, not only creating a new business model, but also separating it from the core ones and support it with the necessary resources. This description is a clear example of resource ambidexterity issue, where the company is not able to find a proper balance between the new and old, strong, business model:

"If we try to squeeze this new business model into the existing model, we have two problems:
1) We might destroy things in the existing business model, because people will focus on other areas
2) The new business model might not fit into the structure of the old business model, leading to a failure"

Per Engdahl

The issue of sales cannibalization has not affected Höganäs for two reasons. First, the customers served by the new products represented a completely different target. Second, when the innovative solutions were sold in the existing market, at the end "technology trumps everything". If the value offered by the new solution exceeds the previous one, sales cannibalization is not a problem. Per also specifies that the previous statement does not only represent his personal opinion, but it reflects the whole organization's.

Moving to the knowledge acquisition process that comes with business model innovation, Per affirms it is certainly an issue at Höganäs. The company possesses extensive knowledge of the needs of its existing customers, but it has constantly underestimated the investment required to gain new capabilities. Given the transition from a product to a market focused strategy, the effort necessary to gain market and customer knowledge was far greater than initially expected.

Despite Höganäs has collaborated with different institutions and hired external consultants to help the company understand how to gain market knowledge more efficiently, Per still regards it as a challenge.

"I am not really about the process we use to learn about new areas. We should have more structure [...]. We have a good vision and fantastic products. But to really make the transition happen, we should focus more on market research and understand the customer needs"

Per Engdahl
From the previous comment, it is clear that lack of marketing skills is a big issue at Höganäs, which is trying to remove its technological mentality in favor of a more market-oriented attitude. Höganäs still concentrates on creating fabulous solutions, without taking the time to understand how to sell them properly. This shortcoming has also hampered the creation of strong relationships with customers in new segments.

Per also acknowledges that all type of change initiatives, especially the more radical ones such as business model innovation, cause resistant among employees. Höganäs is not different in this respect. He emphasizes the importance of having focused people leading the change, but it does not really consider this as a challenge, rather a normal trait of all organizations:

"Human beings, most of them at least, want things to be predictable. Radical changes affect many part of the business model and people are often afraid of doing it. But bringing people out of the comfort zone is the key in driving successful changes"

Per Engdahl

Per says that three elements are necessary to overcome challenges related to people:

- Have a clear vision/target that is communicated to all employees
- Be clear with the employees and do not make them frightened of the change
- Push people out of the comfort-zones

Höganäs has experienced serious hurdles in the third point, as aforementioned. Per claims this was partially due to the lack of an adequate leadership team. Höganäs has relied upon a very good leadership team during the 1990s, but the first years of the new century were characterized by a poor performance of the management group. This generated issues until the year 2005, when the CEO and few other members were replaced. Since then, the situation improved significantly and that transition marked the "real change" in Höganäs. Notwithstanding this comment, Per believes other forthcoming changes from the leadership standpoint will take place. The future leadership team at Höganäs represents his biggest worry:

"We have not been so proactive in recruiting young leaders during the last 10-15 years. I recognize the importance of having experienced individuals in the organization, but Höganäs has currently too few people below 35 years. This represents a problem in terms of innovation"

Per Engdahl

Lastly, Per concludes by saying that the path to innovation is never straightforward, especially when it comes to innovation. Highs and lows are common and they are not a challenge. Throughout his career at Höganäs, Per has always encouraged the exploration of new and risky paths. He believes that failures are part of the "game", as long as the long-term vision is clear. At Höganäs, failures are part of the culture and it is not an issue. Learning from the failures is much more demanding, and the company has adopted a good process to handle them. For example, Per discusses about serious customer complaints as a potential failure. In fact, being more market oriented implies a strict focus on the relationship with the customer and complaints represent the first alarming sign. Höganäs does not track the number of complaints as a KPI metric, but it rather focuses on the type of complaints.
"You have to encourage complaints, because it means you can learn from it. If you have it as a KPI in the company, the focus is just on the number"

"You have to encourage people to take risk, otherwise nothing will happen. The worst thing (emphasis) is when you do nothing"

Per Engdahl

Nonetheless, Per admits that company has entered into new markets since 10-15 years ago, but the profits generated from these side businesses have never been satisfactory. However, the company still believes in these "new" opportunities and does not consider them as failures.

"We can keep going on for a very long time, because we are still very profitable"

Per Engdahl
5.4 Beople

Introduction to the Company
Beople is the first Italian company with the aim of helping organizations to rethink their business model, through the use of the most innovative tools and devices. The company primary objective is to work with the client to develop innovative business model and redefine the positioning in the market. Founded in 2010, Beople has already worked with important realities in the Italian landscape, such as PosteItaliane, Bottega Verde and API group. In addition, the company is one of the very first proponents of the Business Model Canvas developed by Osterwalder et al. (2005) in Italy, having created the online portal www.businessmodelcanvas.it.

The interviewee is Matteo Fusco, founder and CEO of Beople. Graduated with distinction from the University of Rome, he started his career at the Italian ministry of Finance, publishing two important studies. Then, he took different roles as marketing and business strategist prior to the creation of Beople.

Business Model Innovation at Beople
The primary reason of including Beople in the study is to offer an external perspective challenges faced by company during the business model innovation process. The company has significant experience in dealing with many different organizations, from traditional SMEs to established multinationals, without any preference for size or industry. Moreover, the convenience of bringing into the study Beople is given the objectivity of the answers, which are likely to be stripped of any emotional involvement.

Challenges of Business Model Innovation
The single most important hurdle faced by companies during the process of innovating the business model is given by the cultural mindset. According to Matteo, nowadays the boundaries between people or spaces are blurry due to the technological improvements. This open a new era where it is necessary to work at a systemic level, removing all the traditional mental barriers that guided the development in the past 50 years. Despite Matteo does work with companies who are willing to change, he considers people mindset critical for business model innovation

"Having an open-mind and challenge conventional thinking represent two steppingstones for successful business model innovations, especially in family-owned businesses and rigid hierarchical organizations"
Matteo is also very clear when saying the change should originate from the same people who will be then affected by the new business model. It cannot be imposed from the outside. Consequently, Beople is not a consulting company. Rather, the company creates workshops along with the employees of the organization. The first input is to create "significant spaces" within the organization, in order to organize ideas, intentions and notions.

"Working with (emphasis) people is the secret. A significant space is like a chessboard. You cannot play chess without it, since it helps organize all the pieces in the proper way"

Matteo Fusco

The second biggest challenge encountered by Matteo and his team is an overwhelming focus on product innovation. Organizations need to understand that product innovation represents only one of the innovative weapons at their disposal. Traditional firms are used to certain processes and ways of thinking, deep rooted into their routines. This conventional wisdom is tough to be replaced, especially when the market goes up and everybody is euphoric. On the other hand, periods of crisis undermine those beliefs and organizations are more open to change.

According to Matteo, is difficult to create an innovative business model without being trapped by the product-oriented mentality:

"Companies should shift from producing a product to producing what is requested by the market. A product-focused strategy is highly ineffective in times of weak demand. [...] Open new markets and invent new markets. This is why we often combine the business model canvas to the blue/red ocean strategic concept"

Matteo Fusco

Beople is a strong advocate of separating the new business model to the rest of the organization since the very beginning. Matteo does not believe in the effectiveness of resource ambidexterity (Markides, 2013), recommending his clients to separate "ordinary" and "extraordinary" administration. The main reason behind this choice is the incompatibility between two models in terms of philosophy and their coexistence is impossible. Nonetheless, he claims that the new business model should be used as a trigger to generate action in the rest of the organization. Hence, the challenge is not separating the two models, but finding the right model that is able to produce sufficient attention across the whole company. This last point is worth of an additional discussion. As Matteo said, the path of creating an innovative business model is not straightforward, but it is characterized by different attempts. These attempts can be interpreted as cycles. It is difficult to move rapidly from one cycle to another, putting aside the previous attempts and initiate a new one with fresh mind. Not only the process might take a long time, but also identify the right cycle is not easy and requires a tight-knit team

"The objective is to find the right set-up of the new model and this is not possible without differentiation. Business model innovation is characterized by experimentation, while organizations are guided by budget and forecast. Therefore, separating is crucial"

Matteo Fusco
Another important hurdle to be overcome is given by the lack of business model innovation skills. Matteo is very honest by admitting that technical skills are almost never an issue an organization can count on a very wide talent pool. What is often missing is the entrepreneurial personality, the one with a specific vision and extremely high faith in the project. However, this is not considered as a tough challenge:

"Business model innovation is not a technical process. You do not need a team of equally skilled people. It is sufficient to identify one person with the right characteristics, who will be appointed as project champion. Many organizations have that person"

"Recognize the business model innovation advocates is an elimination process. Naysayers often use similar killer phrases, such as "Yes but", "Here it will not work", "We do not have budget"."

Matteo Fusco

This person is responsible for creating separate spaces, called innovation rooms, within the organization. Here, different brainstorming sessions are held, using specific tools and models. According to Matteo, the single most important skills of the project evangelist is his willing to fail as fast as possible, spending as little as possible. He admits that some of Beople ideas follow the philosophy behind the Lean LaunchPad of Steve Blank¹. Moreover, this person should act as a coach, communicating relentlessly and stimulating interest outside the innovation rooms. At this point, Matteo offers an interesting view of the difference between big corporations and SMEs in respect to the attitude toward business model innovation. He affirms that multinationals have often dedicated departments where the main objective is to find innovative ideas and business models. Nevertheless, the bureaucracy of big corporation advances slowly and promising ideas might never reach the visibility of senior executives.

In conclusion, Matteo and his team found that not so few organizations struggle with failures. This is probably one of the biggest challenges that has to be surmounted in order to extract the real benefits of business model innovation. People are used to expect winning solutions immediately, downplaying partial failures, which can be of equal importance. The aim of BMI is not guessing the strategy right, but implementing a process that yields results on a long-term basis.

"It is not important to have the winning idea on the spot, but create the basis for an effective process. This is only possible with the right mindset, the right tools and the right attitude"

Matteo Fusco

Given the nature of Beople, it is not possible to place the company in the Business Model Innovation Map. Nonetheless, the challenges discussed by Matteo Fusco reflect the reality of a wide range of companies that might be (hypothetically) placed in the map

---
¹ Steve Blank is a Silicon Valley serial entrepreneur, author of several successful books and visiting professors the top US business schools
5.5 The Boston Consulting Group

Introduction to the Company
Founded in 1963 by Bruce Henderson, The Boston Consulting Group is a global management consulting firm and the world's leading advisor on business strategy. With 5600 consultants and revenues of $3,950B (2013), BCG serves as an adviser to many businesses, governments, and institutions. It counts on 81 offices in 45 countries, and over the years, BCG developed many concepts and ideas that became landmarks in the field of strategy: the growth-share matrix and the experience curve are two of the most important ones. The company is renown for being always at the forefront of innovation and it puts a strong focus on both teamwork and individual contributions. The 2013 rankings by Fortune listed BCG as the fourth "best company to work for". The interviewee was Stuart Gander, which holds the position of Principal at BCG. Prior to joining BCG, Stuart worked with corporate strategy and product management within telecommunications. He has experience from business model innovation projects through his work with clients in BCG.

Business Model Innovation at BCG
BCG has been one of the very first advisory companies to actively promote the concept of business model innovation. The firm developed its own business model framework, combining the findings of internal projects and work with client. BCG published a widely cited study in 2009 (Lindgardt et al., 2009) where they claim that business model innovators outperform traditional innovators over time. In that article, the authors also present their view of the most common pitfalls faced by companies during the process of innovating. In addition, BCG works closely with the most prestigious companies in the world, enabling its consultants to "test" their ideas in a real environment. For these reasons, Stuart Gander, on behalf of BCG, is considered a valuable contribution in this investigation.

Challenges of Business Model Innovation
One of the very first questions asked to all interviewees is to name the three most difficult challenges faced by organizations, when embarking on a business model innovation program. Despite his broad experience on the field, he affirms that business model innovation is highly company-dependent and, as a consequence, the challenges reflect this aspect. While listing similarities for product innovation is easier, business model innovation is characterized by many more variables. Therefore, in his opinion,
the first key challenge is determining the type of business model innovation to be pursued [by the company]. He considers it as a challenge because many companies fail to plan carefully beforehand, finding themselves in much more serious troubles later on.

"When you plan to innovate the business model, the very first decision you should take is to either create a separate business unit from the parent company or to innovate from within, completely restructuring the old business model"

Stuart Gander

Separating or incorporating the new business model depends on a number of different attributes:

- How radical is the new business model?
- Are the skills necessary significantly different?
- How risky is it? (If it is a completely new BM or if it is "borrowed" from other industries)
- How much does the company really need to innovate the business model?

To illustrate the last point, Stuart presents the IBM example. In 1992, the company faced the biggest financial loss in US corporate history (Chesbrough, 2007) and it was in a dire need of new sources of revenue. Despite IBM successful story, Stuart claims that business model innovation is rarely the only answer in business «survival» case. The most successful business model innovations happen when ones the company is healthy and not forced to do it. In a growing scenario, when the existing business model is working, clients often initiate business model innovation as a side project, next to the old model.

Stuart also notes that radical business model innovations are rarely implemented in the old model – since there is considerable organizational resistance to these amounts of changes. These ideas are often implemented as separate units. Rarely are these units viewed highly by other departments. The latter do not have any upside in promoting the projects:

"If the project succeeds, the managers will gain a promotion. If the project fails, it remains a good learning experience. Why should I support it?"

Stuart Gander

According to Stuart, creating the right team for BMI in an ongoing challenge within big corporations. Junior people, who tend to step out the comfort zone easily, but have limited power in the organization, can run more risky projects. On the other side, senior people can exert their influence and make the changes happen, which are less likely to be disruptive though. Finding the right composition is difficult, but one element is worth reminding:

"Carefully place big leaders into big roles and hold them accountable for the results. Innovating just for its own sake does not work. Don't let innovations to be buried underneath the corporate bureaucracy"

Stuart Gander

After having clarified this important point, the discussion moves toward one of the challenges faced by many companies: the right allocation of resources
"This is THE (emphasis) question for the CEO"

Stuart Gander

According to Stuart, organizations are rarely short of ideas or skilled people. Especially MNCs can count both on ideas coming from millions of customers and on the wide diversity of their employees. Furthermore, business model innovation is such a wide concept that it is how you implement the process that matters. Ideas are necessary, but the implementation makes the difference. He says the people are often the real problem, while budgetary agreements are easier to reach:

"Let's assume you are the CEO. You are surrounded by talented managers who have built their whole careers in the existing business model. The first tough call is to decide if those managers are adequate for the new BM or if external help is required. On the one hand, the risk of bringing external people is that they might not understand the culture of your organization. On the other hand, if you assign the project to your managers, internal conflicts might arise, creating instability and jeopardize the whole company"

Stuart Gander

Stuart acknowledges that shifting budgets could also create resentments, but managing people is far more important (author's note: Stuart opinion might be biased by the size of BCG's clients, often included in the Fortune500 list).

Closely related to the previous hurdle, the transition from the old business model to the new business model is often problematic. Stuart makes it clear that without the CEO involvement, this transition is often doomed to failure. To explain the concept, he contrasts the success of Apple to the decline of Nokia. He claims that Nokia had what it takes to thrive in the mobile business, having serious innovations in the pipeline. Nokia was the Apple of 90s. However, the then senior managers at Nokia were stubborn in pursuit of the path chosen and profoundly underestimated the importance of software, including the apps that run on smartphones. It was too late when the company hired new external people. On the contrary, Apple was determined to create new business models, from the disruptive ITunes store to IPhone/IPad combination, which represents the bulk of revenue for Apple. He concludes with the comment:

"You might have created all the best and innovative business models, but at some point you must make the transition. Here is when it gets complex"

Stuart Gander

Moving to a different type of challenge, in response to the question: "Innovating the business model is not straightforward, but the process might be characterized by partial failures. In your experience, are these partial failures common and, if yes, how they might hamper business model innovation?", Stuart's answer leaves no doubts:

"All, all companies experience these failures. The challenge is not IF they fail, but how they treat those failures"
Assuming that failures are not a challenge *per se*, according to Stuart is what happens afterwards that wreak havoc:

- Has the company captured the internalized the lessons learnt?
- How were the employees involved in the project treated?
- Has the reward scheme changed?
- Did the new business model idea fail due to a lack of accountability?

These are only few questions that should be answered. According to Stuart, the real challenge is creating a systematic process to learn from these failures. It does not represent a "difficult" challenge, but few companies are willing to place it first in their agenda.

His concluding remark:

"All companies have to innovate. BMI is the riskier path to be taken, but also one of the most rewarding"

Stuart Gander
6. Findings and Discussion

The aim of this chapter is not only to analyze the empirical findings, but also to reflect on the theories supporting this study. In addition, the author offers recommendations for executives and managers seeking to increase knowledge of business model innovation. The section ends with a discussion about the Business Model Innovation Map developed in chapter 3.

In part one, the author reviews the significance of the findings, evaluates the emergence of patterns and circles back to the problem statement and objective of the study. First, data of the three companies (Tylö, Höganäs and Bit4id) will be evaluated. Then, the perspective of the advisory firms (BCG and Beople) is analyzed. Finally, all the empirical findings are combined together and discussed.

The second section presents three main area of discussion:

1. Reflection on the theories outlined in the literature review, in light of the empirical insights.
2. The six-steps model, which aims to help companies reducing the "controllable risks" associated with business model innovation. The concept is explained by using theories of financial markets
3. The last section contains conclusive reflections on the Business Model Innovation Map and its usefulness for further studies.

6.1 Findings

In order to fulfill one of this thesis' goals and to answer the main problem statement, in this section I analyze the interviews' findings. Given the different nature of the case companies, the structure of this discussion can largely be divided into three main parts:

- Analysis of the challenges: Tylö, Bit4id and Höganäs
- Analysis of the challenges: the two advisory firms BCG and Beople
- The most salient findings from the five case studies
The following table summarizes the findings:

**Table 6 - Summary of the findings**

<table>
<thead>
<tr>
<th>Strategic</th>
<th>Process</th>
<th>People</th>
</tr>
</thead>
</table>
| **Tylö**  
N/A                | Communicating effectively the new BM to the customers                  | Gain commitment of the employees            |
|                    | Developing a distribution network for the new segment                  | Overcome the resistance to change           |
|                    | Shortage of skilled employees                                          | Lack of an authoritative leadership team    |
|                    | Managing dissatisfaction among the distributors                        | Internal culture difficult to change        |
| **Höganas**  
Strategic ambidexterity issue  
Acknowledging the failure of some experiments | Managing the proper allocation of resources (Resource ambidexterity) | Resistance to change and presence of “lazy” employees |
|                    | Shortage of proper skills for the new business and poor investments to acquire them | Periods characterized by a lack of capable leadership team |
|                    | Lack of a proper process to acquire new knowledge                       | The lack of of a process to learn from mistakes |
| **Bit4id**  
The parent company IPM group decided to not support two business models | Lack of support from the parent company (resources) | Capable leadership team |
|                    | Lack of financial resources                                             |                                             |
|                    | Scarcity of skilled people                                              |                                             |
| **Booople**  
Strategic ambidexterity issue | Lack of BMI knowledge - strict focus on product innovation | Lack of an open-minded culture, which embraces failures and do not expect immediate results |
|                    | Lack of entrepreneurial attitude                                         | The existence of a strong cognitive barrier against the change |
|                    | Lack of a BMI process                                                   |                                             |
| **BCG**  
N/A                | Resource ambidexterity issue (Separate or incorporate the new BM)       | Resistance to change from the employees not involved in the BMI project |
|                    | Problematic transition from the old to the new BM                       | Managing the balance in the BMI team         |
|                    |                                                                        | The lack of of a process to learn from mistakes |
6.1.1 Analysis of the Challenges: Tylö, Bit4id and Höganäs

Among the three studied companies, Tylö, Bit4id and Höganäs, is not possible to identify one single challenge common to all three. The small sample does not certainly help, but from the existing knowledge I am aware that business model innovation is complex and its application depends on many variables (Sheehan & Stabell, 2007 found in Amit et al., 2011; Cavalcante et al. 2011; Johnson et al., 2008; Wirtz et al., 2010; Teece, 2010; Desyllas & Sako, 2013). As a consequence, the challenges are also expected to differ significantly.

In this particular study, Tylö, Bit4id and Höganäs do not present any important similarity. Tylö is shifting to a B2C strategy; Höganäs model is mainly B2B, while Bit4id sells its solutions to both consumers and businesses. Tylö and Höganäs have a long history, while Bit4id marks the 10-year anniversary of its founding in 2014. Bit4id is a small company; Tylö is medium-sized while Höganäs is a big organization, listed in the Stockholm stock exchange. Finally, Tylö is classified as business model transformation, while Bit4id and Höganäs as business model revision. These relevant differences are thought to be the main reason behind the lack of similar challenges among the three companies.

Since no common challenges are found among the companies, a deeper analysis is required. I consider two companies as example of business model revision: Bit4id and Höganäs. Both of them faced the problem of the scarce availability of skilled people. Not in terms of a poor innovating attitude or lack of entrepreneurial vision, which are skills necessary to trigger the development of a new business model. Rather, the missing competences were more related to the ability to support and expand the already created new business model. In fact, the Höganäs' CEO in 2005 and Antonio Chello in 2004, were able to give start to the new business model. They both were supported by capable leadership teams, but they struggle to find skilled people after the change has started. Bit4id operates in a quite novel market (cybersecurity) and, as Antonio said, the universities do not yet provide the right education to young talents. The company lacks of people capable of leveraging cyber security skills in different domains. For Höganäs the situation is quite different. The organization requires talents with a customer-focused mentality and I do believe the market is sufficiently efficient to supply an adequate amount of capable workers. Hence, the root-cause should not be searched there. Hiring managers might have found difficulties in adjusting the hiring practices to the new needs of the company. In alternative, HR managers might not have the right experience to identify the proper skills that separate market-focus individuals to the others. Both Antonio and Per Engdahl also claim that their respective organizations possess the open-minded culture required to start business model innovation projects. Lastly, the business model innovation initiatives carried out at Bit4id and Höganäs received a scarce support from the parent company (or core business) and this certainly represented a big hurdle (Cavalcante et al., 2011). Despite contextual differences, Bit4id was born due to the lack of support of IPM group, while the strength of Höganäs' core business has limited the development of more innovative models.

I now analyze the challenges experienced by Höganäs and Tylö, which present some common characteristics (long history, the new BM is not spun-off from the parent company, the change of CEO represents the turning point and both companies tried to shift from a product to a market-focused mentality). The first challenge that stands out is the presence of employees reluctant to change. This was somewhat expected, given
the long, traditional history characterizing both Tylö and Höganäs. Before the change was announced, it is likely the employees were used to certain processes since a long time and this has created resistance among them (Dent and Goldberg, 1999). In particular at Tylö, where the new ownership was initially frowned upon. This confirms the findings of Cavalcante et al. (2011) and Chesbrough (2010) in relation to the cognitive barriers affecting business model innovation.

Another similar aspect is represented by the lack of an adequate leadership team. However, I do not consider it as a challenge that affected the development of the new business model. Rather, the presence of a poor leadership team can be better considered as a barrier that prevented business model innovation from happening (Chesbrough, 2010). The last point is related to the acquisition of new skills necessary to make the new business model succeed. Höganäs underestimated the effort necessary to acquire the new knowledge, while Tylö struggled to transfer the new skills among the internal departments. Hence, the lack of proper skills does not only represent a barrier to business model innovation (Chesbrough, 2010), but also it might create issues during the process of implementation.

In conclusion, the small sample and the diversity of the three cases studied do not help to identify challenges common to all of them, but a deeper analysis revealed that similar challenges can be found among companies who share similar characteristics. In order to further advance the research on the BMI challenges, a more focused sample is required. I propose three different aspects to take into consideration before forming a sample of companies that is more likely to reveal common patterns:

- Market sector
- Degree of innovativeness in the business model
- Mode of business model innovation (inside the parent company or spun-off, separate unit or as a substitute of the core business)

I believe the differences in the proposed three parameters can explain how the application of business model innovation varies and therefore they might guide the methodological choices.

6.1.2 Analysis of the Challenges: The Two Advisory Firms BCG and Beople
Without any doubt, the analogies between BCG and Beople are greater than the ones found among the three companies analyzed in the previous paragraphs. Both Stuart Gander and Matteo Fusco have a vast BMI experience across different sectors and, more importantly, they offer information from an un-biased and external perspective. Nonetheless, this neutral perspective might be misleading: external consultants or advisors are not always seen under a positive light from the client's employees. This is more likely to make employees more skeptical toward the change, seen it as external force. Hence, it is worth remembering this caveat when analyzing the following data.

In light of the last paragraph, it does not come as a surprise that, according to Matteo and Stuart, transforming the employees' attitude usually represents one of the biggest challenges of business model innovation. Lack of entrepreneurial traits; reluctance to lose the status quo; inadequate willing to innovate if not strictly necessary. Those are all examples of difficulties faced by business model innovators. Those negative attitudes do not only cost companies millions of dollars in missed opportunities, but they also
slow down the development of new opportunities *that have already been identified* (Aspara et al., 2011). As Matteo said, the chances of succeeding are far greater if the change initiative is sponsored by an "internal will" rather than being the consequence of external triggers. Along the same lines is Stuart, affirming that the most successful business model innovations occur in companies with solid financial conditions and not in a "urgency-to-change" mode. This finding is somewhat surprising, because it partially clashes with the concept of cognitive barrier (Chesbrough, 2010) or dominant logic (Prhalad & Bettis, 1995 found in Chesbrough, 2010). I was expecting that attitudes towards the maintaining of the status quo were stronger in presence of a solid, satisfactory and profitable situation.

There are three possible explanations for this. First, employees might not be directly affected by the struggles of their employer: they continue to receive the salaries and keep their job position. Hence, those employees do not see any necessity to change and this mentality hides a very short-term focus. Second, solid companies might be considered so because of their ability to innovate on a recurring basis. Third, their financial stability allows them to pursue paths that would not be possible under stressful conditions. In fact, business model innovation requires continuous experimentation and it is a long, difficult process (Chesbrough 2010; Amit & Zott, 2001; Sosna et al., 2010; Sinfield et al., 2012). Having no apparent pressure can significantly increase the positive outcomes. To summarize, the best business model innovations are more likely to take place within prosperous companies, but the challenge is to create a sense of urgency when the urgency does not exist.

Since most strategy writing stresses that the most common failure is in the area of implementation, it is worth discussing it (Arnold, 1992). When it comes to implementation of business model innovation, Stuart and Matteo have some partial agreements. Matteo discusses the challenges characteristics of the first stages of the implementation process. He talks about "cycles", which refers to the attempts made by the organization to introduce the new business model. Companies do often struggle to create a process that accelerates the development of promising business model ideas and dismisses the ones doomed to fail. On the other hand, Stuart focuses more on one issue that takes place quite far into the business model innovation process: the transition between the old business model and the new one. At this stage, the new business model has certainly proven its validity, but often organizations do not plan carefully the transition, which is a typical process challenge.

Finally, both of them have a strong view on the right team composition for business model innovation projects. Stuart and Matteo both do not believe that organizations are short of skilled people. This is especially true for big corporations, which can leverage the power of their brands or make strategic acquisitions to attract the best talents. Rather, companies struggle to identify those capable employees and include them in the new business model team. To overcome this issue, Matteo's advice is of great value. He has developed a sense for spotting naysayers within organizations, namely the people who always oppose to change initiatives. According to Matteo's experience, these people express their contradictory perspective through similar communicational patterns, which he calls "killer phrases".

Creating the right team is also difficult because talented employees, from the business model innovation standpoint, might often be young middle managers or recently hires
with a fresh mind. They do not possess yet the visibility necessary or their unconventional thinking is simply seen as a threat rather than a resource. Furthermore, Matteo believes that individuals, with an entrepreneurial personality and a clear vision, represent the ideal candidates to lead BMI projects. Of different opinion is Stuart, who recognizes the importance of having senior employees in the team, in particular, the ones with a great influence over the decision-making process. In my opinion, people characterized by both types of skills are fundamental. The entrepreneurial vision to start the BMI process; the influence to make it happen.

6.1.3 The Most Salient Findings from the Five Case Studies

Beside Tylö CEO, Krister Persson, all the other interviewees have expressed a favorable view on the separation between the new and the old business model. Researchers, who have not yet reached an agreement, have already discussed this matter. The findings from this investigation supports Markides' claim that "Two business models should be completely separated right from the beginning" (Markides, 2013). The complexity of business model innovation does not allow a generalization and each case has its peculiarity, but business model innovators are encouraged to find strong motivations for not separating the new business model from the parent company. Yet, a caveat is necessary. While a separated business model is not affected by the bureaucracy of the parent company, hence taking advantage of a supportive environment, the subsequent transition from the old to the new model is characterized by significant hurdles and it carries significant transition costs. People may lose their jobs. Cities dependent on a large employer suffer. Know-how and other assets carefully built over years or decades are destroyed. This is exactly what Stuart said. Whether the new business model grows under the wings of the main organization or it is separated from it, the process will present different challenges to overcome.

Another important discovery is the value of experimentation. Various authors have praised the benefits of a trial-and-error approach for business model innovation (Chesbrough 2010; Amit & Zott, 2001; Sosna et al., 2010; Sinfield et al., 2012). In chapter one, I question the validity of this approach, claiming that gaining additional knowledge of business model innovation can reduce the usefulness of this method. In light of the new findings, I admit that my reservations were partially wrong. On the one hand, I acknowledge that experimentation is of utmost importance for business model innovation. To some extent, it is possible to predict the type of challenges that organizations are likely to face, but the process of creating a new business model is never straightforward, regardless the amount of knowledge possessed. In fact, business model innovation is often considered as a game changer, and trial-and-error is a relatively effective way to make decisions in ambiguous, novel, or complex settings.

Yet, efforts to increase the knowledge of business model innovation can increase the chances of success, reducing the negative effects of all predictable contingencies and letting the organization direct 100% of its attention to the trial-and-error process. The take-away message is to not engage in a trial-and-error approach without understanding it fully. It does not represent the "holy grail" of business model innovation. Experimenting should be considered as a multi steps process, starting from the generation of ideas and finishing with a system that captures the lessons learnt, both in case of failure and success.
There is one more challenge that deserves some attention, despite being mentioned by only some interviewees: the acknowledgement of failures. Overcoming this challenge is easy when the fiasco is evident. The problem arises when the new business model is "stuck in the middle". This expression originates from Porter's strategy works (Porter, 1980), indicating companies that pursue multiple strategies at the same time, thus failing to gain a competitive advantage. "Stuck in the middle" might also describe a situation where the new business model is acceptable, but it is not enough to substitute the old one. Slow growth and poor ROIC (Return On Invested Capital) might be symptoms of this condition. Being stuck in the middle is problematic because it creates ambiguity. To overcome this challenge, a capable CEO should always check if the company is aligned to the long-term strategy: does the new BM support the mission and vision?

Sure enough, the new BM can continue to exist as a separate entity and leave it as is. However, this case requires further evaluation. If sustaining the new business model requires too many resources that might be used more profitably elsewhere, than it is better to stop it. Yet, all too often companies afflicted by the sunk costs fallacy prefer to throw money in current (bad) projects rather than accepting a costly failure. According to Per Engdahl, Höganäs has always been struggling to declare the partial failures of new business models and stop its development. The company had many partially successful ideas, but it fails to scale them up and support them with a sufficient amount of resources. Matteo Fusco also sustains that quickly acknowledging the failures is the first step towards a successful business model innovation process.

### 6.2 Reflection on the Theoretical Literature

#### 6.2.1 Consideration on the Challenges' Framework: Does Strategy, Process and People Represent a Good Categorization?

Simplicity does not always lead to completeness. The aim of this study is not to develop a framework to categorize different set of challenges. Yet, I deem important to review the decision of using strategy, people and process to guide the empirical investigation. The interviews revealed the existence of challenges that were not originally included within the three descriptive categories.

First, deciding whether the new business model will be developed in parallel of the existing one, or if it will substitute the old one, is not only a challenge from the resource allocation standpoint. It involves strategic thinking, since the decision will have a long-term impact on the company, and it also affects the people within the organization. Matteo Fusco, of Beople, is explicit when he says that choosing the right trade-off between the new and old business model may determine its success. The wrong choice might bury the project inside the organizational hierarchy or cause resentment among employees, who see it as a potential threat. From the strategic point of view, Stuart from BCG reminds that separating or incorporating the new business model is one of the very first decision that organizations should take. Since the outcome of a strategy is a plan, and this challenge involves planning, I conclude that managing the coexistence of two business models is also a strategic challenge.

As included in the original framework, creating the right culture that embraces BMI is challenging. Yet, the right culture is not merely restricted to adopting the trial and error
approach (Chesbrough 2010; Amit & Zott, 2001; Sosna et al., 2010; Sinfield et al., 2012). All interviewees have somehow confirmed that experimentation is as important to business model innovation as the process of learning from the mistakes. The latter is much more challenging. Avoiding the mistakes that led to the failure of previous business model innovation attempts is the first step to increase the chances of success. Hence, creating a culture where employees are willing not only to experiment new ideas, but also to thoroughly analyze the mistakes ex-post, is a demanding task.

Lastly, there is one circumstance, where companies do often struggle, that does not completely fit into the labels strategy, people or process. I name this challenge "making the tough call". It refers to the difficult decision, which is usually the CEO's responsibility, to fully support the new business model. At a certain point and under the right circumstances, the new business model should not be considered as an experiment anymore. Yet, the challenge is to fully support the new business model well before the project reaches profitability, otherwise it will fail to grow and remain an ancillary unit. Making the tough call is also referred to situations where the new business model should NOT be pursued. Acknowledging the partial failure and free up resources that might be used more profitably somewhere else.

Besides the last element, which hardly fits into any framework, all the new challenges revealed by the empirical investigation do find a place under the labels strategy, people or process. This last statement is important both for practitioners and managers in terms of understanding how to tackle BMI. Practitioners will benefit from this knowledge since they will be able to initiate discussions before the actual starting of a BMI project. It is true that strategy, process and people represent three broad categories that include various elements within them. However, it is relevant to highlight that this knowledge completely shifts the attitude towards BMI, by offering managers an initial structure upon which a discussion can be build. As of now, BMI is still seen as a very loose process, where upfront discussions rarely take place, mainly because of a lack of proper knowledge. From the academic point of view, knowing that BMI challenges can be grouped into a structured framework is relevant for a different reason. Currently, the BMI research is quite disparate and many authors offer perspectives on very specific parts of BMI that can hardly be generalized. Providing a simple framework that can be used on a broad level can significantly move forward the research on BMI.

6.2.2 Business Model Innovation: An Industrial Perspective
From the case studies, I have noticed that companies have performed business model innovations according to the most common definitions, but this is done implicitly and with a poor systematic approach. The interviewees were aware of the business model innovation concept, but they did not completely understand it, confirming previous findings (Amit et al., 2011; Casadesus-Masanell & Zhu, 2012). There are still strong connections to product and market innovation, which are still the de-facto choices for companies trying to innovate. In this respect, the academia is far ahead of the corporate world when it comes to consider business model innovation as a stand-alone type (Wu et al., 2010; Markides, 2006; Bock et al, 2012; Chesbrough, 2010; Demil and Lecocq, 2010; Amit et al., 2011; Amit & Zott, 2012; Teece, 2010; Johnson et al., 2008; Desyllasa & Sako, 2013).
To reduce this gap, the first step is to properly define business model innovation in a simple, accurate and unambiguous way. I propose the following:

"Business model innovation reinvents how an organization competes in the market"

The definitions that can be found in the extant literature are definitely more comprehensive, but hardly can be easily understood and internalized in the daily routine of people in organizations. The one provided is only aimed at facilitating the understanding of BMI at the corporate level.

Yet, a definition is not sufficient. It should be paired with a visual representation of a business model that clearly delineates the different areas of an organization and how innovation is possible within those areas. In retrospect, the nine blocks of the business model canvas developed by Osterwalder et al. (2005) are superior to the Johnson et al. (2008)' four-dimensional model. The nine blocks better reflect both the structure of existing organizations and their daily activities. This is fundamental because, if business model innovation is treated as an abstract concept, too far more reality, than it will not be accepted as a standard practice.

Finally, it is necessary that companies consider business model innovation as a part of their strategic equipment. "Being competent at BMI is much like developing any other competitive capability: companies assess the opportunities and identify the most promising projects, prepare the organization to pilot the projects and select the best one for scaling up, and then systematize these one-off efforts by building the platforms and skills needed to repeat the successes." (Lindgardt et al., 2009, p. 5)

6.3 Six-steps model

In order to fulfill one of this thesis’ goals and to answer the main problem statement, in this section I will propose few ideas that might help companies to reduce the "controllable risks" associated with business model innovation. In order to explain what controllable risks are, I will borrow a concept from the Modern Portfolio Theory (MPT). Starting with Markowitz's pioneering work (1952), the Modern Portfolio Theory describes how to maximize the expected return of a portfolio given a specific amount of risk. In 1964, William Sharpe (1964) introduced the notions of systematic and non-systematic risk, extending Markowitz's original studies. The following chart represents the two concepts:
In simple terms, systematic risk, also called market risk, is the risk of holding the market portfolio. It represents the risk borne by any investor by simply participating in the market. That risk cannot be diversified away since its inherent to the entire market. Non-systematic risk, or specific risk, is the risk unique to an individual asset that composes a portfolio. The theory developed by Sharpe (1964) aims at eliminating the non-systematic risk by increasing the number of securities in portfolio. For the purpose of this thesis, I will call the non-systematic risk, **controllable risk**.

As the financial markets are unpredictable, also BMI is not a perfect science. The process involves experimentations (Chesbrough 2010; Amit & Zott, 2001; Sosna et al., 2010; Sinfield et al., 2012) and limiting the effects of the controllable risks increases the chances of a successful outcome, even though the outcome is never fully predictable. The rationale for creating the analogy between business model innovation and modern portfolio theory can be argued as follows:

- You possess a certain amount of money and decide to invest it in the safest assets. You are in any cases exposed to the effects of the market risk. It is the price to "pay" to participate in the market. However, you are also free to not bear the market risk and do not invest the money. In that specific case, the situation is safer, but in the long-term the effects of inflation will erode the capital.

- If you do innovate the business model, you are implicitly bearing a certain amount of risk: it might be the loss of time, resources or other valuable assets. If you decide to not innovate, the situation appears safer, but in the long-term the competitive advantage will be eroded and the competitors will gain market share.

Now the question remains: what risks can be predicted, and thus diversified away, in business model innovation?

The current knowledge of business model innovation is far from being comprehensive and to answer the question further research is required. Here, I present a view only on the challenges that can be properly managed, thus increasing the chances of successful business model innovations. From the empirical findings, I have deduced six areas of
interest, which can help managers prevent typical issues that characterize the BMI process:

1. **Choose the team wisely**: selecting the appropriate individuals is fundamental. The team should not be solely composed of rising stars, nor should be represent a place filled with low-performing employees. Ideally, the team is made of people willing to challenge the status quo of the company, regardless their expertise, skills or background. They are risk-takers, but have also a solid grasp of how the company operates. The CEO, or his immediate lieutenants, should have an active role in the business model innovation process. Not in terms of influencing the decisions, but rather as a shield against bureaucracy and politics. As confirmed by the empirical findings and other studies (Chesbrough, 2007), the management support is essential to make this happen.

2. **Leverage existing tools**: there exist plenty of tools and models that can help companies innovate their business models. Yet, those models are often too abstract or far from being practically used. The suggestion is to adopt models that are linked to the company operations, so everybody has a clear picture of different parts of business model. It has to guide the process of innovation, reminding people to look at the whole picture and to evaluate the decisions on a company-wide level.

3. **Decide upfront the level of integration**: there is not a unique practice to follow for this challenge. In view of the empirical findings, I strongly recommend to separate the new business model from the core-business (Markides, 2013). It seems that this separation facilitates the innovation attitude, removing possible constraints. Nonetheless, the important message is to engage in this discussion early on in the process, and evaluate the different choices according to the specificities of each business.

4. **Institute a learning process**: the first step is to recognize business model innovation as a new way to innovate (Wu et al., 2010, Markides, 2006; Bock et al, 2012; Chesbrough, 2010; Demil and Lecocq, 2010; Amit et al., 2011; Amit & Zott, 2012; Teece, 2010; Johnson et al., 2008; Desyllas & Sako, 2013) and not as a supporting tool for product or market innovation (Teece, 2010; Amit & Zott, 2010, 2012, 2013; Boons & Lüdeke-Freund, 2012). Then, it comes naturally to develop a process to guide the business model innovation effort. It will not produce any tangible result if left on its own destiny. Hence, the trial-and-error approach represents only one part on the learning process, which should start from the idea generation to the learning from the outcomes. This process should encourage failures, which have to be acknowledged and considered as small steps towards a future success.

5. **Goal selection**: what do we want to achieve from business model innovation? This is the very first question that has to be answered. Not because the team needs a specific goal or a budget to reach. Rather, is fundamental to sit down and develop what-if plans if things turn out differently, in order to avoid being stuck in the middle. Without a goal, this exercise cannot be made. Plan how the new business model will be integrated and how it will be scaled up if successful.
6. **Reduce friction**: no matter how the process will go, there will be always some reluctance to change. This can be easily predicted and counter measures should be in place when it happens. What if strikes happen? What if labor unions threat the development of the business model? How friction across teams will be managed? Having a plan to deal with those situations will avoid being caught off-guard, thereby dampening from birth these issues.

Following these six steps may not guarantee success, but it will increase the odds.

6.4 **The Business Model Innovation Map**

As stated in the introductory chapter, one ambition of this study was to explain that there exist different types of business model innovations. In this section, I reflect on the resulting framework, the Business Model Innovation Map, developed deliberately to reach the objective. Indeed, the map was originally developed in order to differentiate the truly transformations in the business model to the mere incremental ones. In fact, many critics argued that innovation is an overused term, often associated to mere incremental situations that do not have anything in common with the truly transformative ones (Cavalcante et al., 2011). In fact, one of the assumptions behind this study is that three types of business model innovation are characterized by different challenges.

I have to admit that the original plan was to collect empirical data about companies that can be placed in the top-right quadrant of the Business Model Innovation Map, namely the truly innovative ones. Comparing companies with the same degree of change in the business model might have revealed more solid and significant patterns. On the one hand, this failure could have been avoided with a better planning. On the other hand, the development and use of the business model innovation map reveals two important insights:

1. Finding the truly transformative business model innovations is not an easy task. Many studies have analyzed only the customer value proposition through the lens of business model innovation. Authors, who praise the benefits of business model innovation, describe case studies of companies innovating in only one dimension of the Johnson's 4 dimensional framework (Johnson et al., 2008). If an accurate and comprehensive analysis across the four dimensions is performed, I believe that only handful examples will stand out as truly transformative. Moreover, given the struggles faced by BMI researchers to generalize their findings, a better categorization of business model innovation types might help increase our knowledge of the topic. Indeed, by using the degree of novelty as an index to compare similar companies, it is more likely to generate solid results.

2. A corollary to the first point is that not all the business model innovations are the same. Various researchers have presented sound models to categorize different types of business model innovation (Lindgardt et al., 2009; Giesen et al., 2007). Yet, these models have yet to prove their validity and so far have generated poor general findings. In fact, there exist too many types of business model innovations that is quite hard to squeeze them in few categories. By differentiating BMI by their degree of innovativeness, I think is easier to generate solid results and transfer them across different industries.
7. Conclusions

In this chapter, practical implications of the theoretical conclusions are discussed as well as proposals for future research. In the end, limitations of the current paper are presented.

Considering the current research on business model innovation and the lack of comprehensive knowledge of the challenges faced by companies, this empirical investigation aimed at exploring the challenges associated with business model innovations. This multiple case study has shed light on this question in a number of ways.

First, the collected data is not directed toward the attainment of generalizable results, which can be hard to find when discussing the challenges of business model innovation. This confirms the findings of previous studies, which describe the difficulties of analyzing business model innovation in general terms, since each case presents its own peculiarities. It might also explain why researchers have not yet agreed on a common definition and framework for business model innovation: the existence of multiple perspectives that do not necessarily clash each other hinder the process.

Second, 4 out of 5 companies have stressed the importance of separating the new from the old business model. In fact, the separation creates a favorable environment that facilitates the development of the new business model. From the strategy standpoint, organizations often struggle to understand when the new business model should be part of the core business or if it should be separated. It is not an easy choice because it has consequences on both people and processes. Yet, this is not a challenge per se. The challenge might come later, if the new business model turns out to be successful and the organization wants to make it as the core business, but it has not defined how to properly do it.

Third, this study proves the value of experimentation. I initially cast some doubts on its validity, but the results are aligned with the viewpoint of many researchers (Yunus et al., 2010; Chesbrough, 2010; Sosna et al., 2010; Desyllas & Sako, 2013; Doganova & Renault, 2009,) who consider the trial-and-error approach as the best one for business model innovation. Nevertheless, this approach should not be taken lightly. The challenge is to create an effective trial and error process: it starts from the idea generation, it captures the key steps and it ends with the study of the outcomes. This trial and error method can be considered as a process of knowledge acquisition.

Fourth, acknowledging the failure is definitely a significant issue. Yet, the challenge is not related to projects that are an absolute failure. Rather, it manifests in situations that can be denominated as stuck in the middle: too stable to be dismissed, but not enough to be considered as a win. Various big organizations struggle to acknowledge the failure of some projects and continue to pour money into models that have poor growth perspectives.

Fifth, according to the respondents, many successful business model innovations take place in companies with solid financial conditions and are not "forced to innovate". Thus, the difficult challenge is to motivate employees toward the innovation during periods of apparent quietness. Ideally, all employees should experience an inner desire
to challenge the status quo, peculiar of successful start-ups and serial entrepreneurs. It is worth noting that the previous statement is quite audacious, given the small sample of this study. I believe that it is certainly possible to completely transform a business model even under conditions of external pressure. Yet, reconnecting to the idea of managing the controllable risks, start the innovation when is not strictly necessary might avoid facing future conditions characterized by high pressure for "delivering results".

Lastly, the five case studies analyzed present challenges unique to their specific context: Tylö faced important difficulties in the distribution network and the brand management; Bit4id was not supported by the parent company and struggled to find capable people; Höganäs did not manage to scale up important projects. These challenges are unique and cannot certainly be discussed out of the original context. I take the last point as a showcase for making a more general reflection. As discussed at the beginning of chapter 7, challenges faced by business model innovators are tightly connected to the specific context in which they occur. Perhaps (the data of this study are not sufficient), this reasoning only applies to the very transformative business model innovations. Those cases are so unpredictable that no amount of prior knowledge can help spotting some patterns. Yet, business model extensions and revisions happen in more predictable environments, where the challenges can be foreseen to a certain extent. This area is more suitable for future research, given its likelihood to generate solid guidance for companies.

7.1 Managerial Implications
In addition to the findings related to the main research question, the study intends to make the following contributions:

• There is a wide consensus among academics that a trial and error approach is recommended for business model innovation (Yunus et al., 2010; Chesbrough, 2010; Sosna et al., 2010; Desyllas & Sako, 2013; Doganova & Renault, 2009). I recognize the importance and strengths of this approach, but I would argue that trial and error experimentations might be problematic if taken lightly. In a trial and error approach, the manager starts with the existing business model, deconstructing its elements and evaluating each of them with an idea toward refinement or replacement (Teece, 2010). This approach should be part of an iterative process that allows the company to learn from mistakes/successes, thus improve over time.

• Connected to the previous paragraph is the concept of risk. Managers usually evaluate typical projects by adopting capital budgeting techniques (Schall et al., 1978). These techniques are used to select the most profitable projects for capital expenditure, which is aligned with enterprise’s objective of maximizing shareholder’s wealth. Such techniques take into account risk, the time value of money and focus on cash flows rather than on accounting profits. Regarding the risk, it is often measured in pure mathematical terms and only the initiatives below a certain threshold are granted the approval. Nevertheless, adopting the same approach for business model innovation initiatives is not appropriate. Given the high level of uncertainty about the outcomes, mathematical predictions will not work. Instead, knowing a priori the challenges that a company is likely to encounter by doing business model innovation will help managers to reduce the controllable risks, thus avoiding unnecessary and time-consuming experimentations or inefficient
allocation of resources. By providing managers with the tools to evaluate change initiatives, the rate of success may increase and they will be able to plan in advance the best response to different scenarios. *The ability to better understand potential future scenarios and how the organization can benefit through new models is now more important than ever* (Giesen et al., 2010, p.22).

### 7.2 Theoretical Implications and Further Research

In the extant literature, the term business model innovation has been used rather loosely, referring to a wide range of situations which can be hardly be classified as BMI. The aim of this study is also to re-establish certain criteria to determine when it is correct to talk about business model innovation. This discussion could lead to further research that investigates the predominance of specific challenges in different business model innovations. The map represented in figure 2 could be a starting point, but different perspectives are welcome, given the lack of previous studies.

The analysis of the case studies provoked an interest in the following questions: when does a business model innovation process start? When does it end? An answer is out of scope for this study, but it would be fascinating to understand if it is possible to determine the beginning and the ending of it. The motivations behind this interest is that for all three companies, Tylö, Bit4id and Höganäs, is possible to define when the business model innovation process started. For Tylö, the change in ownership and the new CEO; for Bit4id the separation from IPM group and for Höganäs the new CEO and the substantial changes founded between the 2005 and 2006 annual reports. Yet, determining the end of the process is a more complex task. Perhaps, it is not even possible to define the end. However, if researchers are willing to develop further the business model literature and close the gap with the more famous types of innovations, answering the question can offer significant value. Understanding the end of business model innovation clarifies when responsibilities and resources can be shifted. In addition, it opens room for reflections on the parts that were successful, as well as the ones that need improvements. Therefore, from the managerial point of view, it would be a significant step forward. In conclusion, the need to understand this intriguing matter, as well as when and how business models come into being is also shared by Amit & Zott (2013).

In addition, the empirical data revealed the existence of other minor challenges that were not included in the original strategy, people and process framework. Examples are the unfavorable geographical position or the development of a distribution network. I believe those challenges are somewhat context-dependent and do not contribute meaningfully to the discussion. However, further investigation on this matter might reveal important insights that currently are not available.

Lastly, the Map (figure 2) represents the first attempt to measure business model innovation. It draws its empirical foundations from previous studies made in the field of innovation and it graphically visualizes three major types of business model innovation. The Map clearly presents some unique characteristics in comparison to other frameworks that classify BMI:

- It is based on the principle that there exist different business model innovations that can be classified according to their degrees of novelty. This idea places business
model innovation on the same level of process, market and product innovation, hence filling an important gap in the literature

- It helps differentiating the truly transformative business model innovations to the mere incremental ones
- It proposes a new method to categorize organizations according to the level of innovativeness. This might lead to the discovery of patterns among similar companies.

Understanding more about BMI types, and the related methods to measure the degree of novelty is a fruitful and relevant area for future research. In fact, to bring BMI to the same level of technological innovation, advances in this area are recommended. Further research could hence build on the framework and provide additional insights. I suggest two areas of particular interest:

1. Validate the operational use: operationalization is a procedure to define the measurement of a phenomenon that is not directly measurable. In this study, the end goal would be to measure the degree of business model innovativeness. The map developed should be adjusted to reflect the true conditions of the market as best it could. Consequently, the operational use of the entire model is still in question. Thus, I propose to focus the attention on three elements that require further work. First, a better definition of the borders between two quadrants. Second, evaluating the number of business model innovation types. Could the current categorization (revision, extension and transformation) be improved? The last point concerns with the differences between the two quadrants named "revision". I think they might be further divided, but it is necessary to understand under which circumstances.

2. Test the model developed in different situations: I recommend to conduct a multiple case study for each quadrant, aimed at testing the model through business model innovation initiatives of various companies, preferably within the same industry or having similar size. By following this approach, I would expect the findings of specific patterns within each quadrant. Moreover, it might be possible to associate specific challenges to each type of business model innovation represent in the map.

7.3 Limitations

Ideally, the final objective of exploring the challenges faced during the process of business model innovation would be to provide managers with sufficient data about the significance and the likelihood of the each challenge. This paper does not certainly provide this information, nor it is expected to do it. In fact, this area of business model research is still in the embryonic state and it is first necessary to provide a general overview of the challenges. I acknowledge that the individual challenges may differ in importance across industries and they are highly context-related. This is also the reason of why in this study I have mainly grouped the challenges into three categories.

Another limitation is given by the choice of the interviewees. They were mainly executives, with job position of high influence. On the one hand, the study was originally designed in this way, since business model innovation is often driven by the top. On the other hand, executives might be too distant from the day-to-day challenges.
faced by front-line employees. A double perspective would have certainly revealed new insights.

The limitations to generalizability from a small sample are also well known, and further studies of other cases are clearly needed if the findings are to be generalizable to other settings. It is important to achieve further evidence because this investigation reflects the perspective of one individual for each company (except Tylö). Since the challenges have a subjective component, they depend on the individuals' attitude and traits. For example, Krister Persson and Per Engdahl are very optimistic persons and their view is certainly filtered by this personal characteristic.
8. Bibliography


81


Taran, Y. (2011). Rethinking it all: Overcoming obstacles to business model innovation. *Aalborg University, Faculty of Social Sciences, Center for Research Excellence in Business Models*


9. Appendix - Interview guide

1. Could you compare the old Tylö BM to the new one across the four dimensions of Johnsons' framework?

2. What are the three most important challenges faced by Tylö in the process of shifting from a product to a market oriented company?

3. Did you experience any challenge in finding the right allocation of money, people and resources during the transition between the 2 business models?
   - No = Did you find immediately a balance? Some more details..
   - Yes = What was the most difficult step you had to overcome? How would you rate the magnitude of this challenge from 1-5?

4. Do you think the bathroom segment is completely unrelated from the sauna business?
   - No: Are you afraid of possible sales cannibalization between these two markets? How do you make sure there are no sales cannibalization
   - Yes: You are not afraid of any sales cannibalization?

5. How do you manage the budget allocation between the sauna business and the bathroom business? Did you cut the budget for managers whose role lost importance for the new BM?
   - NO= How did you find all the resources to develop the new business?
   - Yes=How did they react? Did their reaction pose a serious challenge for the daily operations? How would you rate the magnitude of this challenge from 1-5?

6. To make sure the new bathroom business will succeed, you need to have a proper knowledge of the market. Would you think your team was knowledgeable enough 4 years ago?
   - Yes= How did they get this knowledge? Was a long-term company strategy or did it happen by change to have knowledgeable employees?
   - No= Was it difficult to gain this knowledge? In what way? From 1-5, how difficult was this process?

7. Being more market oriented implies a focus on marketing and communication with the customers. Did Tylo employees have the right skills at the beginning?
   - Did you encounter any resistance from someone not willing to learn new capabilities? What were the main challenges in this situation?

8. The transition from old BM to new BM during business model innovation is a very critical phase. It is almost similar to run to diverse companies. Some departments gain more power to the disadvantage of others. Do you feel the marketing department gained more power to the disadvantage of other functions?
   - No = What was the key aspect in making different departments cooperate each toher?
9. Did you need to establish new relationships to key suppliers/customers? How did you do this and was it a challenge?

10. The process of innovating the BM is usually not straightforward. Did Tylo experience any partial failure so far?
   - No = Did it happen by chance to have a straightforward process or is there any key reason?
   - Yes = What was the main challenge? In what way? How would you rate the magnitude of this challenge from 1-5?

11. Connecting to the previous question, partial failures can lead to low morale. Were your employees affected to some extent?
   - No = What was the key to always keep the motivation high
   - Yes = Was it a challenge? How did you make sure to instill the idea that failures might be beneficial? How would you rate the magnitude of this challenge from 1-5?

12. Did you have the right leadership team when you decided for this transition?
   - Yes = Did it happen by chance or do you believe your leadership team can tackle any challenge?
   - No = Did you bring new people on board and how difficult it was to find the right personalities for this challenge? (1-5)

13. When you announced to the employees the new strategy, usually not everybody fully agrees. Some employees might resist changing. Did you experience any similar situation?
   - No = Why do you think everybody accepted immediately the new company's strategy?
   - Yes = What was the reason of this "resistance" and how difficult was for you to change their minds and bring them on board?

14. Tylo is positioned in the high end segment of the sauna business. When you decided to go into the bathroom market, how did you decide to position the company? Was it a difficult decision?

15. What is the most critical strategic challenge that you experienced by being the CEO in shifting from product to market?
Alessandro Agostini, Italian native