University of Strathclyde

An Empirical Investigation of Radical Innovation Growth through a Capabilities and Dynamic Capabilities Lens.

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Department of Marketing

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For the past twenty five years, I have been active as manager, leader and consultant in large and small companies, primarily spearheading new international business opportunities, revitalizing organisations and helping them to realise profitable growth. For the last three years, I have been largely dedicated in an exciting adventure as "Doctor in Business Administration" (DBA) student at the University of Strathclyde in Glasgow, UK. This journey was driven by an ambition, a strong commitment and deep motivation, to make a dream come through. In reality, it required hard work and sacrifice. However, during those three hectic years, I was able to further explore fascinating dimensions of radical innovation challenges and intriguing marketing and business puzzles.

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Field research requires access and a partnership with practitioners. With the support of more than one hundred managers and experts, willing to explain and to share, I was able to formulate new theoretical concepts and practical frameworks. For confidentiality reasons, all names of the organisations and of the involved managers have been disguised. I would like to gratefully acknowledge for their contributions and the many conversations.

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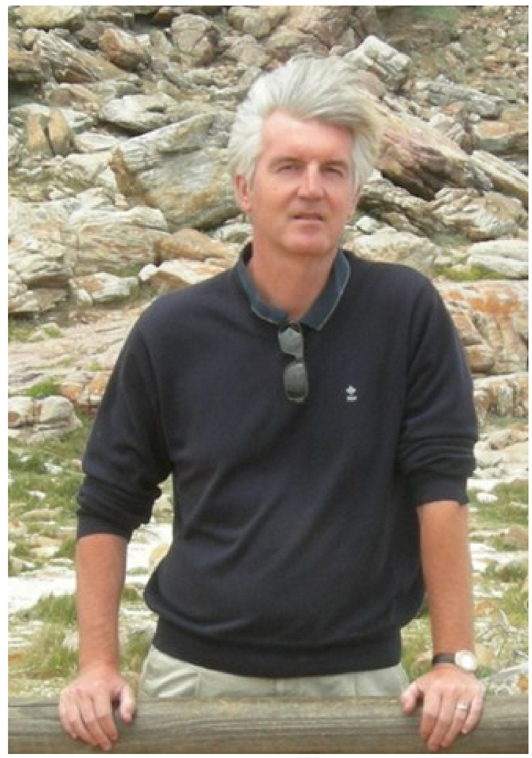


Guy A. Bauwen,

Glasgow, October 12, 2011.

Abstract

Radical corporate innovation ventures (RCV) can be engines of renewal and profitable growth. However, their outcome is highly unpredictable. This research explored, how industrial and knowledge intensive RCVs confront reality, deal with uncertainty and how they control their destiny. In essence, this research project has empirically investigated during the early time-into-market, the market and business development (MBD) of RCVs, through a capabilities (CAP) and dynamic capabilities (DCAP) evolutionary lens; a neglected research space. At the end of this report, a glossary and an overview of the abbreviations are included. Due to the multi-disciplinary, multi-dimensionality and complexity of the research scope, this study conducted during 3 years, longitudinal field research, studied in-depth 6 cases, involved through face-to-face interviews and focus group sessions, more than 100 managers, applied the triangulation method and analysed extensively the related literature.

This research suggests that MBD or developing a market (MD) and developing a business (BD), can be operationalized, as an entrepreneurial market orientation (EMO) CAP (1). During a prospecting and trial phase, an aligned Schumpeterian and driving EMO combination is the better fit (2). In the next phase, defined as acceleration phase, a Kirznerian and driven EMO combination is the better fit (3). This approach can result in a more effective time-into-market, a better MBD learning curve, generate faster recurring revenues and lead to a first prover advantage (FPA) (4). Concurrently, MBD can also be operationalized as a bridging or DCAP with sensing, scaling, collaborating, capturing and leading as dominant DCAPs (5). Moreover, a MBD lead framework could be identified. Basically, lead organisations orchestrate seven interdependent lead elements: lead offerings, lead users, lead customers, lead partners, lead experts, lead markets and lead champions. An optimal lead mix is dependent on external dynamics, organizational DNA and strategic options (6). This research also suggests that MBD CAPs and DCAPs are hardly on the management agenda, are mostly ignored, and are avoided, because they are invisible and perceived as difficult to implement (7). Furthermore, both need to be de-averaged, integrated and dynamically synchronised (8).

Finally, limitations have been discussed and avenues for further research determined (9).

CHAPTER 1: RESEARCH PROJECT DESCRIPTION

Introduction

"*In the majority of cases, the companies that pioneer radical innovations are not the one's that scale them up*" (p. 151) (Markides 2008).

This first chapter, covers the background, positions the study and expands on the importance, the rational and relevance of this research project. This results in an overall research project framework, covering scope, objectives, questions, methodologies and methods. Innovation is high on the strategic agenda of many companies and most governments, but the tension and anxiety produced, by not being satisfied about the outcome and uncertainty about, what is needed to be successful, provokes a lot of frustration (Hatch 1997).

However, what is innovation? Innovations have many faces, come in many shapes, confront many parameters and are context-specific. There are many typologies that classify innovation efforts. Essentially, innovations can among others be: product or process oriented (Baker and Hart 2007), sustaining or disruptive (Christensen 1997), open or closed (Chesbrough 2003), adjacency or strategic (Govindarajan and Trimble 2005c; Zook and Allen 2003), breakthrough or enhancement (Hargadon 2003; O'Connor et al. 2008b), competence-enhancing or competence-destroying (Markides 2008), radical or incremental (Leifer et al. 2000).

The innovation lifecycle has been analysed for many years (Leifer et al. 2000; O'Connor and DeMartino 2006; O'Connor et al. 2008b), but still major knowledge gaps have to be filled (Lee 2009; Tellis 2008). In a recent empirical firm level study, O'Connor et al. (2008) identified three major phases: discovery, incubation and acceleration. It all starts with the fuzzy front end, with identifying and filtering new growth opportunities. This represents a major critical go versus no-go decision. During incubation, new product development and time-to-market are major concerns. Finally, acceleration represents the

phase, where the new innovations have to prove, they are capable of becoming a real business (O'Connor and DeMartino 2006; O'Connor et al. 2008b). Many companies are applying a stage gates process, as long as the products are under development and primarily before launching the products in the market (Hart et al. 2003; Hart and Tzokas 2000; Tzokas et al. 2004). But very few companies keep going with the formal process of assessing periodically their progress after market entry. According to serial entrepreneur Kawasaki (2004): *"The reality is that you need both, microscopes and telescopes to achieve success"* (p. xi) (Kawasaki 2004). Most companies are using for the early commercialisation phase, different labels, like among others: launching, market entry, new product introduction, market development, diffusion and adoption, sales take-off and go-to-market. All those labels will be discussed in the following chapters.
In the next section, the research context of the study will be described.

Research Context

For twenty-five years as business executive and consultant and also for the last three years as researcher, I have been deeply immersed and directly involved with innovation, marketing and strategy, especially in technology intensive and established multinational organisations. Discussions with business managers across the world indicate that most organisations are more than before struggling to succeed and to get an acceptable return on innovation investments. The expectations and day-to-day pressures are enormous. Combining a discipline of efficiency with a discipline of renewal is very hard. Markides (2008) claims that major innovations within an established organisation are questionable and he argues that radical innovations should be left to the start-ups (Markides 2008). Clayton Christensen (1997) demonstrates that established organisations can succeed with sustaining innovations, but that they seriously struggle with disruptive ones (Christensen 1997). Along a similar line of thought, Chris Zook (2003) recommends that companies should take only small steps outside their existing business perimeter (Zook and Allen 2003). Govindarajan and Trimble (2005) are more positive for businesses to create new businesses, but they call for a better execution and for strategic experimenting (Govindarajan and Trimble 2005a; Govindarajan and Trimble 2005b; Govindarajan and Trimble 2005c). O'Connor et al. (2008) analyse radical or breakthrough innovation capabilities at firm level (O'Connor et al. 2008b) and Hamel (1999) advocates for bringing ‘silicon valley’ approaches, inside large corporations or in other words, promotes the corporate venturing approach for established companies, who are ambitious enough and committed for adventuring into new spaces (Hamel 1999).

I brought with me a number of intriguing marketing and business puzzles. I realised that not only some of them were and still are highly problematic for business executives, but discovered that they also represented academically and empirically, an interesting research gap. One of those intriguing radical innovation puzzles for many years was, and still is, simultaneously creating a market and developing a business successfully, and this for game-changing innovations. More specifically, a key challenge is, how to bridge the early commercialisation inflection points (Burgelman and Grove 1996b; Grove 1998), tipping points (Gladwell 2001; Kim and Mauborgne 2003) or chasms (Dhebar 2001; Moore 1999; Moore 1995).

An interesting way to describe, how a radical innovation is viewed in this research project, is by giving an example of a radical or game-changing innovation: the 787 Dreamliner. “*The journey on the 787 began with a set of technologies which could change the game in commercial aviation. Through careful engagement with our global customer base and listening closely to them, we discovered that the real value they were seeking post 9/11 was in efficiency, range, overall economic and environmental performance. The 787 uses about 20 per cent less fuel and is about 30 per cent less expensive to maintain than the airplanes it will replace – all of that in an industry where a three or four per cent improvement is considered a breakthrough. It provides passengers with higher humidity and lower cabin pressure for a more comfortable flight. And it produces less emissions and noise for the environment. And it flies 25 per cent farther not faster, reducing the need to change planes in this security-intensive world, which is highly valued by customers. All in all, the 787 is a tremendous improvement for the airlines that fly it, giving them a competitive advantage”* (p. 1) (McNerney 2010).

A second example of a radical innovation is the laser, one of the most powerful and versatile technological advances. “*In the 30 years since its invention, its range of uses* *has been breath-taking. Lasers allow the reproduction of music in compact disc players, and of text via laser printers. They are widely used for precision cutting in the textile, metallurgy, and composite materials industries. The laser has become the instrument of choice in many surgical procedures, including eye, gynaecology, and surgery. Perhaps the most profound impact of the laser has been in telecommunications where, in combination with fiber optics, it is a revolutionising transmission. In 1966, the best transatlantic telephone cable could carry 138 conversations simultaneously. The first fiber-optic cable, installed in 1988, could carry 40,000. Those installed in the 1990s can carry nearly 1.5 million. Yet despite what turned out to be a striking record of success, the patent lawyers at Bell Labs were initially unwilling to apply for a patent for the laser, believing it could have no relevance to the telephone industry*" (p. 172) (Rosenberg 1995).

Moreover, an innovation can only generate a return, if the innovation has been able to prove itself in the market. That is, when the objectives and goals have been realised. Ultimately, the aim is to have a positive return on the innovation investment. Boeing had strong arguments to convince customers, but they have been struggling with the commercialisation and will only succeed, if they are able to convince initially trendsetting customers, a first step in the process. The laser story is different. The laser diffusion took many years. But finally, several companies in different industrial sectors have been able to succeed with various laser applications. After those examples, let us define the scope of "radical innovations".

This research follows Leifer et al. (2000), who describe a radical innovation project in practical terms, as one with "*a potential to produce an entirely new set of performance features or improvements in known performance features of five times or greater"* (p. 5) (Leifer et al. 2000). This definition is driven by, breaking with the status quo, by creating and adding new value to the market place and to the organisation, rather than by technological novelty or newness to the organisation and while remaining realistic about the ability to make it happen. Furthermore, this empirical investigation considers as unit of analysis a radical innovation project in an established corporation, which is labelled here as a radical corporate venture (RCV). The scope and definition of RCV is an adaptation from (Block and MacMillan 1995; Leifer et al. 2000) and covers the following characteristics: (1) Renewal: Focus is on strategic renewal and/or new profitable growth and is undertaken for the purpose of strategic and economic objectives. (2) Relatedness: Involves an activity new to the organisation which can be product or/and market related but situated close to the core business. (3) Radical: The offering should be drastically different than previous generations, with a substantial evolution of performance features (Leifer et al. 2000). (4) Risks and uncertainty: Involves significant higher risks of failure and uncertainty, than the organisation's base business. (5) Resources: Is conducted primarily internally, with a high degree of autonomy, while leveraging internal resources and involving external partners.

The scope of this research project relates to industrial companies. Across the world, the importance of the industry is significant for the economy. As an example, in 2009 the Flemish industry counted for 40% of the Flemish added value, was responsible for 80% of all research and development expenditures and 75% of Belgian export (Flemish Government 2011).

Another characteristic of this research project is its focus on knowledge-intensive and high-tech organisations. Those organisations became increasingly central in the economy and are characterised by increasing returns and network effects. Moreover, the fast pace of how they are evolving, is beneficial to study them over time. A manager was emphasising this when he said: "*The market is changing so rapidly, that we are considering six months equal to one year for planning purposes*".

In today's knowledge economy, according to Vargo and Lush (2004) and Verbeke et al. (2010), knowledge became an integral part of creating of value, in terms for marketing and selling of products and services. (Vargo and Lush 2004; Verbeke et al. 2010).

The focus of this research project is the fuzzy downstream or early commercialisation area. Since the 60ies, several diffusion models have been established, like for example, the Bass model, that separates innovators and imitators (Bass 1969), while others, separate influencers and imitators (Van den Bulte and V. Joshi 2007). In this study, a prospecting versus accelerating phase is applied (Hahn et al. 1994). Prospecting is about searching for prospects or prospective users, customers, markets and involves testing and selling trials. Acceleration is about, realising a sales growth acceleration momentum and getting repeat business and recurrent revenue streams. In the next chapter, this subject will be further discussed.

Though, no two radical projects in our study are the same, patterns have been observed in their journey to the marketplace. There is practical value of understanding the patterns in and the differences between cases. This understanding could be a starting point for identifying management practices, that can make the diffusion and adoption of radical innovation projects, shorter, faster, less expensive and ultimately more certain (Leifer et al. 2000). Several uncertainties plague radical projects and influence their trajectory. The radical project life cycle is also marked by discontinuities, gaps, critical transitions and leverage points. Those have to be understood, in order to identify new better practices, organisation approaches, capabilities and resources needed, to make projects more successful. In the next section, the research objectives will be described.

Research Objectives

"*An old map is useless if the terrain is new*" (p. 3) (Stacey 1992).

In business environments, that are increasingly ambiguous, paradoxical, complex, and volatile, a decision making framework is more than useful. The trouble with standard maps and traditional navigational principals is that they only can be used to identify routes that others have travelled before. Existing maps only make sense for managing the knowable (Stacey 2010; Stacey 1992). The aim of this report is, to change the way managers think about the route to market and to business success. Today, most managers use the same navigational tools, confronted with highly turbulent or stable situations. This report will explain why managers cannot use existing maps, if they embark on a radical innovation journey and what they can do to succeed.

Capabilities and dynamic capabilities, required for developing a market and establishing a business, are generally under-researched. Successfully bridging the 'Prospecting to Accelerating' phase of radical corporate ventures (RCV), has not received a great deal of empirical attention, in the context of knowledge intensive and industrial markets. Though numerous have been studied in consumer contexts, in industrial contexts, research has primarily concentrated on the new product development phase. A recent exception, was a study on corporate innovation capabilities to be deployed at company level, to repeat and systemize radical innovations (O'Connor et al. 2008b).

However, project-level investigation has the potential to add a more granular understanding of the capabilities, required when a truly radical innovation project leaves the safety of the shore of development (Story et al. 2009). Moreover, bridging the market entry and sales growth phase, from an entrepreneurial and market orientation perspective, has not received a great deal of empirical research attention.

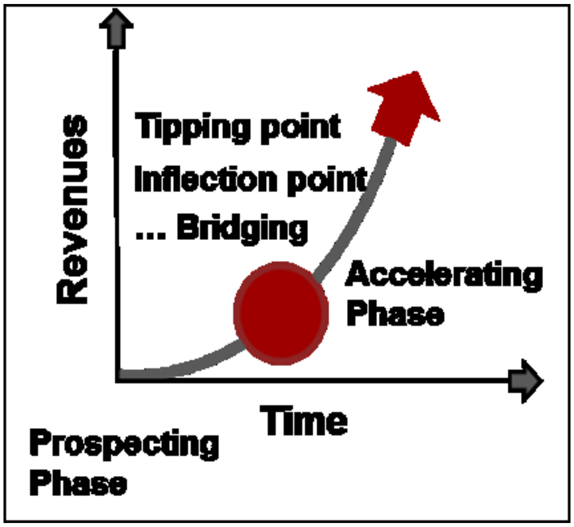
The Research therefore, aims at “enhancing our understanding of how radical innovation ventures successfully cope with bridging the ‘Prospecting to Accelerating’ phase. To adequately fulfil this research aim, various research questions have been formulated. This DBA research, explored the critical MBD challenges of RCVs, identified success factors and developed a MBD compass, for navigating through unknown territory.

To summarise: the intent of the research project, was to explore the radical early TIM innovation realities, to identify new knowledge for the early commercialisation area and to develop new maps and tools, for the brave radical adventuring organisations, traveling unknown territory.

Research Questions

"*Longitudinal and qualitative studies could further explore how capabilities are developed*" (p. 344) (Chandler and Hanks 1994).

Figure 1: Research questions



Conversations with several managers have indicated that, the added value of capabilities is hardly recognized. When managers hear the word capability, many of them associate it with the competency models, administered by human resource departments. But the term is used here, in a more strategy-related way: capabilities are unique strengths, that an organisation has and what it is great at doing. A capability is not simply a routine or practice; it is the ability to reliably and consistently deliver and capture value (Dosi et al. 2008). A capability is characterised through a combination of resources, processes and values (Christensen and Overdorf 2000; Christensen and Raynor 2003).

The most important capabilities are distinctive: each of them represents an extraordinary ability, that few others can master (Grant 1991). During the literature review in chapter 3, capabilities and dynamic capabilities will be further discussed, in the context of market and business development. Capabilities and dynamic capabilities required for developing a market and establishing a business are generally under-researched. Ambrosini and Bowman (2009) conclude in an extant literature synthesis: "*There are few empirical studies … We need fine-grained case studies over time*" (p. 46)

(Ambrosini and Bowman 2009). More specifically, successfully bridging the "Prospecting to Accelerating" phase of RCVs has not received a great deal of empirical attention in the context of industrial markets (figure 1).

Therefore, key questions for this research project are:

- What are the major MBD challenges during early commercialisation? Why?
- Which MBD capabilities are required during the 'prospecting' phase?
- Which MBD capabilities are required during the 'accelerating' phase?
- How to bridge the PTA phase, from a dynamic capabilities perspective?
- Which practical MBD framework can be established, to navigate the PTA area?

Despite the intuitive attraction of the concept of capabilities, in the context of RCVs, there is little research to shed light, on which MBD capabilities are required for either developing the market post launch, and how, if at all, they relate to capabilities required to develop a sustainable business, which in the context of industrial markets requires over time, the development of stable exchange relationships.

In the next section, the research relevance and contribution will be briefly described and discussed.

Research Relevance and Contribution

This research project targets the academic, the business and the government communities. Finding an answer to the stated research questions, should serve the interests of all three stakeholder groups. In the following paragraphs, the relevance and the contribution of this research will be discussed. Combining concurrently and balancing, scientific rigour and business relevance in a research project, is a very challenging ambidextrous objective. All too often, those two communities, with their own worldviews, are hardly connected. New knowledge creation is great, but new knowledge applied, contributes even more. We need both rigour, which means using scientifically valued methods to address challenging problems, and relevance, a true focus on the needs of managers and their organisations (Wind 2008).

A major challenge of any corporation is to move from using old techniques, tools, processes, that are focused on solving problems of the past, towards developing new and rigorous tools, techniques, processes, that are relevant to the challenges of today and of the future. The concern for relevance, often has led to a movement towards accepting less rigour. While there is always a need for intuition and creative experimentation, there is also need to guarantee rigour.

According to Wind (2008), we have lost the focus on the dual objective of rigour and relevance. Academics focus on rigour, with limited attention to relevance; while practitioners focus on relevance, with limited attention to rigour (Wind 2008). We need both rigour and relevance. The lack of relevance of much of the marketing and innovation research activities can be illustrated by the fact that there is low readership of key marketing journals by practitioners. On the other side, we are seeing a troubling lack of rigour in the business practices. Even many of the leading marketing and management consulting practices, continuously launch "secrets of success", build on thin empirical evidence, but very well packaged and promoted. However, on the other side of the spectrum, are studies capitalising on databases of the past, to predict the future, while packaging it with state of the art statistical techniques.

As outlined above, this research project targets the academic community and takes a holistic view to study and explore the reasons, why and how radical innovation projects can succeed. The second target group of this research project is the business community. From the beginning, it has been the attention to pursue an avenue of research with relevance to both executives and consultants and to report the results of this research with practical frameworks. The third group that this research project targets, is the government community. Given the central role of business organisations in our society, a large part of public policy is directed at influencing the actions of decision makers within companies.

In the next section, the research process will be addressed and described.

Research Process

This research project took 3 years of intense work, commitment, determination and iron discipline. An overview of the major activities is given in figure 2 and will be discussed in this section. Basically, the research can be divided in three major building blocks. The focus in the first year was, to acquire advanced knowledge of a portfolio of research methodologies, methods and skills and in parallel, on exploring and understanding the selected research domain. During year two, the emphasis was on analysing, verifying and summarizing the research progress. Finally, research findings have been further confronted, discussed and enhanced with experts from management, government and academic background.

The research process started during year one, with the study of research methodologies and study of organizational theories. The research methodology courses were intended to provide research training of the highest standard to SBS researchers. It was designed to enable participants, to develop competencies across the spectrum of research methods, balancing the acquisition of specialist knowledge, with the ability to apply a range of research techniques in a practical environment. The six attended modules included: research philosophy, research methods, advanced quantitative methods, advanced qualitative methods, writing and presenting research and a research colloquium to present and defend the research project. Over the years, I have benefited a lot and was able to capitalize on and leverage the coaching sessions, with my supervisor, who each time challenged me and energised me to move ahead. In a similar way, the research committee review sessions have been added value milestones.

Concurrently, a field research and literature review study has been conducted. During year one, the attractiveness of the research purpose has been tested within the business and academic community. In reference to Gummesson this phase can be labelled, as a pre-understanding research phase. Nine cases have been studied initially, but ultimately six have been further assessed. The reason to drop three cases was because the accessibility was too restricted. But essentially for the six cases, we had access to managers and data bases. Over the years other managers have been interviewed and

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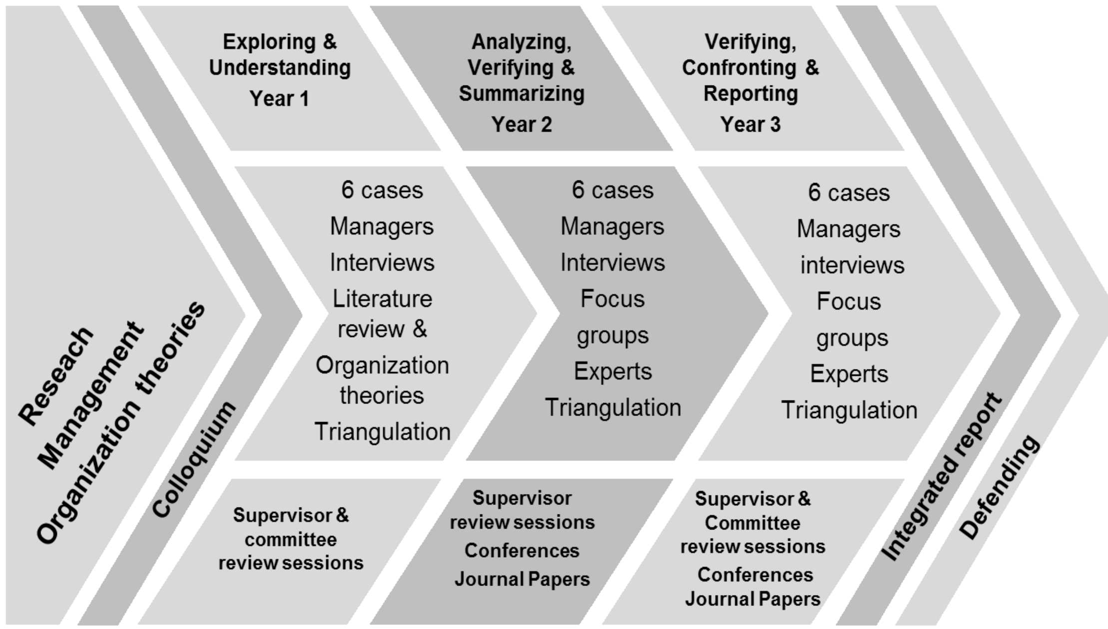
confronted with the preliminary findings through discussion sessions and focus group sessions.

Figure 2: Research process overview



As mentioned earlier in the research methodology and methods section, due to the highly complex nature of radical innovation project dynamics, a longitudinal, holistic and multi-case based approach was most appropriate. A qualitative research process with triangulation (Denzin, 1978), was advantageous to better understand concepts being explored (Creswell, 1994).

Over the years, three international conferences have been attended and three papers have been presented (table 1). The first paper "Market and Business Development Capabilities for Radical Ventures" was presented at the 17th International Product Development Management Conference in Murcia, Spain, June 2010. This was the first real confrontation with academics, being challenged by domain experts and was an excellent learning experience. At the end of year 3, two new papers have been developed and presented. 'Strategic led management a dynamic capability for more successfully commercializing radical innovations' was presented at the 40th EMAC European

Marketing Academy Conference in Ljubljana, Slovenia, May 2011. A couple of weeks later, 'Entrepreneurial market orientation as a dynamic strategic capability for radical ventures' was presented at the 18th International Product Development Management Conference in Delft, the Netherlands, June 2011.

Table 1: Presented papers at international conferences

Market and business development capabilities for radical corporate ventures. EIASM 17th International Product Development Management Conference, Murcia, Spain, June 13-15, 2010.
Entrepreneurial market orientation as a dynamic capability for radical ventures. EIASM 18th International Product Development Management Conference, Delft, Netherlands, June 5-7, 2011.
Strategic led management a dynamic strategic capability for more successfully commercializing radical innovations. 40th EMAC European Marketing Academy Conference. Ljubljana, Slovenia, May 24-27, 2011.

Being accepted to present, was a confirmation that the proposed papers, combined rigour and relevance. Attendance to those international conferences was enriching, for getting direct access to recent research in my domain and being able to have discussions with researchers in my field.

In the next section, the report research structure will be covered.

Research Report Structure

Chapter one describes the research project, starting with the research context, objectives, questions, methodology and methods and further addressing the research philosophy, organizational theories, relevance, research contribution and finally describing the research process and the research report structure.

Chapter two provides a literature review of the radical innovation domain, covering corporate entrepreneurship and corporate venturing and further expands on commercialisation opportunities and challenges.

Chapter three starts with a literature review of several organizational theories, including the resource based view, the knowledge based view, organisation capabilities, dynamic capabilities, marketing capabilities and innovation capabilities.

Chapter four focuses on the chosen research philosophy, methodology and methods, describing in-depth the selected paths, the validity and reliability criteria, triangulation and this in order to guarantee rigour and a scientific valued research project.

Chapter five describes the research setting and expands on specificities of the six cases, studied during three years. Each case will be described; analysed and initial findings will be formulated. The next chapters will capitalize on this research material.

Chapter six unbundles the time-into-market in a 'Prospecting to Accelerating' phase. MBD through a MO, EO and EMO capability lens, are addressed.

Chapter seven addresses the transformation from prospecting towards accelerating, identifies and describes MBD as a bridging capability, covering dominant dynamic capabilities such as sensing, scaling, collaborating, capturing and leading.

Chapter eight describes a MBD lead framework that will help navigate organisations during their radical innovation adventures.

Chapter nine provides the conclusions and the theoretical and managerial implications, the limitations of the research and highlights avenues for further research.

Overview of the research report structure.

Chapter 1	Research project description.
Chapter 2	Literature review: Radical innovation.
Chapter 3	Literature review: Organisation theories, capabilities and dynamic capabilities.
Chapter 4	Research methodology and methods.
Chapter 5	Research setting and research analysis.
Chapter 6	MBD through a capabilities lens.
Chapter 7	MBD through a dynamic capabilities lens.
Chapter 8	MBD lead framework.
Chapter 9	Theoretical and managerial implications. Limitations and further research.

CHAPTER 2: LITERATURE REVIEW: RADICAL INNOVATION

Introduction

"*The importance of new product development is acknowledged ... to the neglect of the market development phase*" (p. 11) (Baker, 1983).

In this chapter, the radical innovation literature, relevant in the context of market and business development, will be described and discussed. Initially, the research environment will be described and analysed. Next, the corporate entrepreneurship and venturing literature will be analysed. Ultimately, the radical innovation commercialisation, the diffusion and the MBD literature will be explored.

A major paradox, for any company in a competitive environment, is explicitly innovating in new ways that set them apart from their rivals. A recurring mistake is to assume that the very skills that propel an organisation to succeed with sustaining innovation, can drive radical growth (Burgelman 1983a; Burgelman and Siegel 2008; Christensen and Raynor 2003; Govindarajan and Trimble 2010; Markides 2008). According to Kim and Mauborgne (2005), only 14% of new product launches are substantial innovations, but they accounted for 61% of all profit of innovations among investigated companies (Kim and Mauborgne 2005). More recently, O'Connor et al. (2008) refer to research showing that firms that successfully commercialize radical innovations reap above normal returns and higher than average market value over the long term, but they must have adequate systems for managing high uncertainty in place to help leverage their investments (O'Connor et al. 2008b). Most radical innovation ventures are very ambitious and have a vision of becoming a highly valued growth organisation, but as they start small, they are subject to the liabilities of newness and smallness. In other words, they are unknown, untested, and lacking legitimacy (Burgelman and Siegel 2008; Burgelman and Siegel 2007). MacMillan and George (1985) already warned that corporate venturing or creating new businesses within a company is often the only way to grow; but many attempts result in failure (MacMillan and George 1985). In the next section, the context will be explored and analysed.

Radical Innovation: Context

"*Business leaders today face unprecedented challenges*" (front flap) (Charan 2009).
Most companies are facing higher levels of external and internal tension. This is mainly due, to the impact of globalisation, increased competitive intensity, volatility, stretched stakeholder aspirations and economic uncertainty, but also not knowing when the crisis will stop (Charan 2009; D'Aveni and Gunther 1994; Govindarajan and Trimble 2005c; Kumar 2004b; Leifer et al. 2000; Mohr and Sarin 2009; Mohr et al. 2005b). Today the environment inside and outside most companies, has become even more hostile. According to Stacey (2010), uncertainty has become a fundamental, irremovable organizational reality with major impact (Stacey 2010). Environmental uncertainty is felt among all stakeholders and can be defined, as the interaction between varying amounts of complexity and change in the environment. Complexity refers to the number and diversity of the elements in an environment. The rate of change refers to how rapidly these elements change. The term environmental uncertainty can be quite misleading, as environments do not feel uncertain, people do (Hatch 1997). What affect organisations, is not so much conditions in the environment as it is the perceptions of organizational decision-makers, about how uncertain the environment is. Hatch (1997) wrote: "*Managers feel uncertain when they perceive the environment to be unpredictable and this occurs when they lack information that they feel they need to make decisions. The tension and anxiety produced by not knowing what information is needed is a major driver for provoking an increased uncertainty perception*" (p. 90) (Hatch 1997). Uncertainty means high levels of unpredictability, so that no one knows with any confidence what will happen. All we can rely on, according to Stacey (2010), is the fact that we will be surprised. It also means that no one is sure what is going on. It is even more complex than that, because the paradox of the known-unknown. While we may not be able to predict, we could speculate and expect an evolving repetition, but never with certainty, because evolution will always be open to radical change (Stacey 2010).

Frequently recurring critical uncertainties covered in the literature are primarily external centric, but internal challenges need to be considered as well.

According to Mohr et al. (2005), market, technology and competition are on top of the list as major uncertainties (Mohr et al. 2005a). However, organizational (Leifer et al. 2000) and economic uncertainties (Charan 2009) are to be understood as well (Baker and Hart 2007). First challenge: market uncertainty (1) or ambiguity about the type and extent of market and customer needs that can be addressed by a particular radical offering. Characteristics include, customer fear, uncertainty and doubt (FUD). More specifically, customer needs that change rapidly and unpredictably and customer anxiety over the lack of standards and dominant design have to be dealt with. But there is also uncertainty over the pace of adoption and uncertainty related to forecasting the market size and predicting diffusion patterns. Second challenge: technology uncertainty (2) or not knowing whether the technology or the company can deliver on its promise. Uncertainties include whether the new innovation will function as promised or whether the new product development time-to-market will be fast enough. In addition, there can be ambiguity whether the supplier will be able to fix customer problems with an emerging breakthrough technology and concerns over unanticipated or unintended consequences or over product obsolescence. Third challenge: competitive volatility (3) is about understanding existing and new competitors, anticipating substitute offerings and aggressive strategies. Uncertainties exist as well, over who will be future competitors, who will survive, who will disappear. Furthermore, there are concerns over "the rules of the game" and over the competitive intensity among product types. Fourth challenge: organizational uncertainty (4). Because radical ventures are faced with high uncertainty on multiple dimensions, the sophisticated efficiency inspired management processes that work so well for incremental innovation, are not adequate and new processes and tools must be developed (Leifer et al. 2000). Fifth challenge: the current toxic environment with associated economic uncertainties (5): "*The economic cyclone continues to rage and nobody knows when it will end. Business leaders today face unprecedented challenges: the worldwide economic downturn. Sales forecasts are dismal and moral is sinking" (front flap) (Charan 2009).*

Radical organisations have to deal at the same time with many paradoxes: novelty and continuity, knowing and not knowing (Stacey 2010). For radical innovation projects, the shape of the ultimate market is initially far from clear and identifying, which customers have beyond a need, also a real desire, an ability and a willingness to allocate a budget, is very difficult. Predicting which offerings will gain market acceptance, is a tough challenge and the path forward is difficult to visualize. Any RCV has to deal with a large number of uncertainties that makes it difficult to define ahead of time key milestones. In such scenarios, it is much more reasonable and useful to identify and prioritise uncertainties that must be resolved, to define alternative approaches and to monitor them continually (Rice et al. 2008).

To summarise: this section clarified the radical innovation context and described dynamic and competitive market and business drivers, which cause many managers to feel uncertain. In the next section, the corporate venturing domain will be explored.

Radical Innovation: Corporate Ventures

"*Corporate venturing is a growth strategy to tap into new opportunities that differ from a company's current focus*" (p. 68) (Altman and Zacharakis 2003).

Corporate entrepreneurship (CE) can be viewed, as a process within an established organisation to conceive, foster, launch and manage a new business, that is distinct from the parent organisation, but leverages some of the parent's assets or other resources (Wolcott and Lippitz 2007). The new unit remains under the parent corporate, strategic and financial control. It differs from corporate venture capital, which predominantly pursues financial investments in external companies (Sharma and Chrisman 1999). Burgelman (1983) sees CE as a process of diversification through internal development, which requires new resource combinations to extend the organisation's activities in areas unrelated or marginally related (Burgelman 1983b) or CE is a process of experimentation and selection (Burgelman 1983a). Zahra (1995) views CE, as the sum of an organisation's innovation, revitalisation and renewal efforts and that is characterised by changing the scope of its business and by building new capabilities and then creatively leveraging them (Zahra et al. 1995). Kuratko and Audretsch (2009) merge the entrepreneurship and strategic management domains in order to deal with powerful forces in the competitive landscape: change, complexity, chaos and contradiction (Kuratko and Audretsch 2009). In essence, radical corporate venturing is an internal avenue of new growth (Sharma and Chrisman 1999) and a highly focused approach to innovation (Birkinshaw and Hill 2005a). RCVs deal with sophisticated internal and dynamic external realities. Over the past decades, companies worldwide have experimented with RCVs, as a way of, creating new value for shareholders, spearheading strategic renewal, rejuvenating their organisations, building new capabilities, pursuing new growth avenues and growing the top and bottom line (Sharma and Chrisman 1999). Established companies tried to copy agile, adaptable, fast growth, small company organizational capabilities (Hamel 1999). Creating new small virtual companies inside established organisations, could be a winning formula for succeeding with breakthrough, radical, disruptive, game-changing and strategic innovations (Christensen and Raynor 2003; Govindarajan and Trimble 2005a; Markides 2008). Those corporate ventures, are new business development entities inside established companies, are born for dealing with new breakthrough innovations (Birkinshaw and Hill 2005b; Burgelman 1984; Burgelman 1983b; Burgelman and Välikangas 2005; Thornhill and Amit 2000), are created to spearhead new market and new product spaces (Christensen 1997; Kim and Mauborgne 2005; Tushman and O'Reilly III 1996) and are strategic experimentation initiatives (Govindarajan and Trimble 2005c; Nicholls-Nixon et al. 2000). Corporate venturing is considered to be most productive as a path to superior performance when executed in a strategic way (Covin and Miles 2007). Biggadike (1979) defines a corporate venture as a business, a product or service that the parent company has not previously marketed and that requires the parent company to obtain new equipment or new people or new knowledge. Block&MacMilian (1995) views a project as a corporate venture, when it involves a new internal activity, with a significantly higher uncertainty and risk of failure than the organisation's base business; and will be managed with a high degree of autonomy at some time during its life. However, the mortality rate among ventures is high and those failures are mainly due to the mistaken assumption, that management approaches are universal (Block 1982). Markides (2000) adds that a major source of strategic failure is the failure to make clear and explicit choices related to, who to target as a market segment and more specifically who as customers, what to offer them and how to execute (Markides 2000).

There are different lenses and levels to address and assess corporate venturing. Basically, researchers have studied corporate venturing empirically at three levels: the parent organisation, the venture unit and the new venture itself. Studies conducted at the parent level typically track the formal units established for this purpose, without investigating specific ventures (Birkinshaw and Hill 2005a). The unit of analysis of this research project is the RCV, which is characterised with its own DNA. According to Govindarajan and Trimble (2005) an organizational DNA has four major building blocks. First, staff or leadership characteristics, staffing policies, competencies, promotion policies and career paths. Second, structure or formal reporting structure, decision authority, information flows, task and process flow. Third, systems planning, budgeting systems, business performance evaluation criteria, incentive and compensation systems. Fourth, culture elements about behaviours that are valued, embedded business assumptions and decision biases (Govindarajan and Trimble 2005c). Furthermore, RCVs require mostly, both new technological knowledge and new market knowledge, while incremental innovations use and leverage existing technological and market knowledge (Burgers et al. 2007). Radicalness relates to the newness degree - product, solution, business model and market – and the autonomy degree. Block and MacMillan (1993) distinguish three dimensions of relatedness of a corporate venture: product, technology, and market. Together these three dimensions determine the novelty of a corporate venture, relative to the parent firm. The product dimension, measures the newness of the products a venture develops, compared to the current offerings of the parent firm. The technology dimension refers to the extent to which the venture develops new technological capabilities, relative to the parent firm. This type of venture is associated with capability destroying innovations, as it makes the existing technology obsolete. The market dimension refers to whether the venture aims at new markets. Capabilities regarding new markets, refer to opening up new channels, trying out new marketing approaches with different sets of customers or geographically different markets (Block 1982; Block 1985; Block and MacMillan 1995).

However, the market and business realities with corporate venturing outcomes are very challenging. As Block and MacMillan (1995) formulate: "*Every ten years or so there is a surge of interest in internally generated new businesses. The track record is mixed with a combination of failures, successes and mediocre results. Although many companies have been discouraged, others have demonstrated the power of venturing by using it as a strategy for propelling themselves into dynamic profitability and growth. The real challenges involve how to do so"* (p. 13) (Block and MacMillan 1995). So, corporate venturing is mostly defined, as the creation of a new strategic innovation trajectory within an existing organisation, requiring different capabilities than existing strategic business units (SBU). Corporations predominantly start a venturing initiative to renew, revitalize or rejuvenate the core business and when different capabilities are required. Corporate venturing is perceived and frequently used, as an organizational vehicle for fast track new business development for radical innovations. However, most companies are seriously struggling along the venture life cycle. Without a clear strategy, organisations tend to generate an incoherent mass of interesting opportunities, but that does not move their organisations towards a desirable future (Getz and Tuttle 2001). Overall, there is no lack of putting the "growth through innovation dream" on the agenda and of increasing R&D investments. Several pioneering multinationals got excited and tried for a while the "bring silicon valley inside" idea. Ultimately, most terminated their experiments (Hamel 1999). Across the world, the anticipated new growth results are poor, questionable and the process is perceived as high risk and unpredictable (McGrath et al. 2006). Moreover, the mortality rate of radical ventures, is high and many companies are withdrawing (McGrath and Keil 2007). Many firms are desperate and struggling (O'Connor et al. 2008b). The pursuit of new territory by selecting a risky and uncertain path is a race with its own rules. This race is the area of radical and game-changing innovations. Here, more adventurous and more entrepreneurial units have to deal with discovery and exploratory activities. A lot has to do with leaving the past behind, about forgetting what the company did well, what they knew best and who they knew (Govindarajan and Trimble 2005c). Innovation opportunities and threats are frequently too broadly researched and discussed. Different types of innovations have different competitive effects and should be treated as distinct phenomena in order to

establish a 'better theory' (Markides 2006). Companies too often vacillate in their commitment to internal corporate venturing activities, leading to less than optimal outcomes. But stretching the timeline too much puts perverse pressures on ventures to "grow big fast" and potentially leads to dysfunctional managerial behaviour (Burgelman and Välikangas 2005). According to Guy Kawasaki (2004): "*Doing, not learning to do, is the essence of entrepreneurship*" (p. xi) (Kawasaki 2004).
In the next section, the early commercialisation challenges will be discussed.

Radical Innovation: Commercialisation

"*Asked to think about the challenges of innovation, most managers relate to the creative, brilliant and inspired maverick who sees the future in a different way, a rebel on a mission. This romance is deeply embedded in our business culture*" (p. 2) (Govindarajan and Trimble 2005c).
Most managers are obsessed over the fuzzy front end and the time-to-market. However, the real challenge is the fuzzy time-into-market (Baker and Hart 2007). Despite its importance, costs and risks, product commercialisation (Di Benedetto 1999), market development (Baker 1983), experimentation in unknown territory (O'Connor and McDermott 2004), sales take-off (Tellis 2008), collaborative ventures (Talay et al. 2009), which specific capabilities to be deployed to drive radical innovation into the market (Di Benedetto et al. 2008; O'Connor and DeMartino 2006), have been relatively under-researched in industrial markets. RCV face their stiffest resistance once they are showing signs of success, consuming more resources and clashing with the parent company and the other RCVs and the strategic business units (Govindarajan and Trimble 2005a; Govindarajan and Trimble 2005c). This represents for the emerging RCV a major challenge along their growth trajectory.
Over the years, research studying sales take-off has intensified. Pioneers, Rodgers (2003) and Bass (1969) viewed innovators and imitators as central and argued, that the rate of innovation diffusion is governed by the relative size of these two group and leads to a S-shaped revenue curve (Bass 1969; Rodgers 2003). Following the early work of Rodgers (2003) and Bass (1969), numerous models have been developed to capture the

shape of this curve and predict its pattern. Those studies explored as well, the gaps between segments, caused by factors such as, technological inertia, cascades, economic recessions, and slow repurchases by early adopters (Chandrasekaran & Tellis, 2008). Earlier, Tellis, Stremersch and Yin (2003), showed that culture and national identities were other important determinants of take-off, especially in the diffusion of innovations across nations. They suggested, that if differences among countries were sharp and persistent, then this could help resolve the choice between a waterfall or sprinkler strategy, for the global launch of a new product (Stremersch and Tellis 2004; Tellis et al. 2003). Moreover, many more empirical studies focused on developing models explaining and predicting sales take-off (Chandrasekaran and Tellis 2008; Chandy and Tellis 2000; Chandy and Tellis 1998; Golder and Tellis 2004; Stremersch and Tellis 2004; Tellis et al. 2003; Van den Bulte 2006; Van den Bulte and Joshi 2007). However, almost all these research projects were done in business to consumer settings and were mainly conducted in the USA. With a focus on business to business (B2B), Moore (1999), conceptually based on work of Rodgers (Rodgers 2003), popularised his chasm concept about market adopter categories on which several other authors have expanded (Dhebar 2001; Moore 1999; Slater and Mohr 2006). For Moore (1999), the early market period is characterised by both excitement and uncertainty in the minds of both vendors and technology enthusiastic customers (also referred to as innovators) and visionary customers (also referred to as early adopters). Inflection points, divide the early market development evolution and represent fundamental change points, in how technology markets develop, and therefore why and how change must occur in order to move from one phase to another phase (Moore 1999). In a similar search for an explanation, tipping points (Gladwell 2001; Kim and Mauborgne 2003) and the hype cycle (Fenn and Raskino 2008) have been other attempts to explain those moments of truth (Gladwell 2001). Gladwell (2001) and Kim and Mauborgne (2003) view those critical moments in time, as major switching or tipping points (Gladwell 2001; Kim and Mauborgne 2003). Gladwell (2001) comments: "*Tipping points are moments of truth, at which the momentum for change becomes unpredictable or unstoppable. A tipping point* is *the moment of critical mass, the threshold, the boiling point*." He also states: "*It is about ideas and products and messages and behaviours that spread like viruses do*" (p. 11-12)

(Gladwell 2001). Interestingly, despite substantial research related to the diffusion and adoption of new products, many challenges remain for future research, such as for example take-off patterns and turning points (Hauser et al. 2006).

To summarise: The literature review has indicated, that the proposed empirical research was relevant from a theoretical and from a managerial perspective. A holistic and longitudinal approach appeared to be the better research approach, due to the multi-dimensionality, the multidisciplinary character and the complexity of the research scope.

Figure 3: Research background

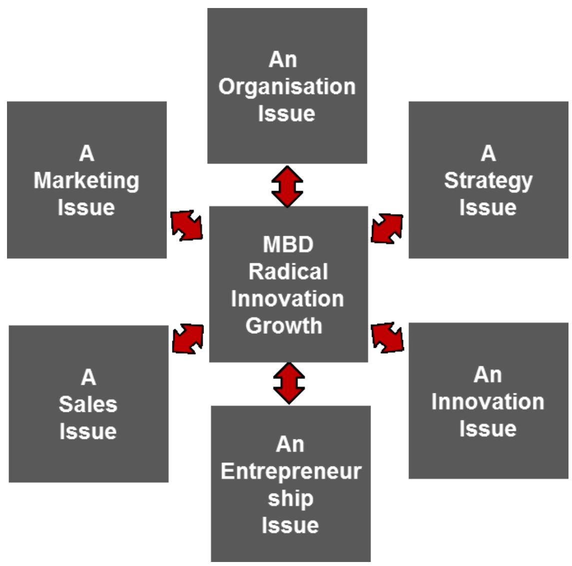


Figure 3 gives an overview of related major issues and important disciplines, impacting the research objectives and those are: organisation, strategy, innovation, entrepreneurship, marketing and sales. Furthermore, the initial analysis has demonstrated that, (1) bridging the ‘Prospecting to Accelerating’ phase was a critical issue and a very complex multi-dimensional issue with many internal and external variables; (2) that empirical studies had been done primarily in business to consumer (B2C) settings, were mainly verifications centric and were essentially USA-based; (3) that empirical holistic and longitudinal multidisciplinary research at project level was missing and could add contributions; and finally, (4) that empirical research of market and business growth capabilities, as dynamic capabilities during the PTA, was a neglected research space. To illustrate: the literature review showed that specific capabilities were required to compete effectively across the various stages of the industry life cycle (O'Connor et al. 2009) but those have not been explored empirically and rigorously and little research has compared the relative effectiveness of different types of capabilities (Lee 2009). But also, empirical work especially outside the USA, for bridging the 'Prospecting to Accelerating' area and in technology intensive industrial markets is an exception. Di Benedetto et al. (2008) studied strategic capabilities as drivers for new product development (NPD) and launch and O'Connor and DeMartino (2006), explored which radical innovation capabilities at company level are to be deployed. The latter, identify three competencies, one labelled "acceleration", which comprises activities that "*ramp up the fledgling business to a point where it can stand on its own"* (p. 491) (O'Connor and DeMartino 2006). Together these studies introduce a range of activities which are required for establishing a market and developing the initial sales into a business which demonstrates both financial and competitive viability. These activities might be described by the umbrella term of "Market and Business Development" (MBD), where market development includes converting initial customer leads in sales, whilst business development centres on beginning to convert initial sales into meaningful exchange relationships. Surprisingly, market development is frequently studied, while few academic studies deal with the term business development (Kind and Zu Knyphausen-Aufsess 2007). In their firm-level study, O'Connor and DeMartino (2006) provide new insights, which form a helicopter view of dynamic capabilities, but they are still to be related to a wider organizational context. The focus of this research, therefore is, how specific RCVs have negotiated challenges of "acceleration" comprising the two overlapping domains of MBD. Our intent is to explore in a holistic way, how MBD capabilities can make a difference. RCVs face many challenges, among others, a risk-averse mind-set, fierce internal resource battles and increased competitive intensity. The purpose of this study is to explore, analyse and discuss the MBD capabilities of radical ventures. While navigating in the current turbulent hyper-competitive economy, it makes sense to zoom in at project level. Finally, in the last section of this chapter, conclusions are discussed. In the next chapters, the literature will be reviewed to surface and address research questions, followed by the description of the research methodology, with the penultimate sections presenting the findings and implications.

Conclusions

In the previous chapter, we have covered and analysed the literature, related to the early commercialisation phase or early time-into-market of radical corporate innovation projects. Several relevant disciplines have been verified such as, marketing, sales, innovation, strategy, organisation and entrepreneurship.

The literature analysis indicated, that the early phases of market and business development which have been unbundled in a ‘Prospecting” and an “Accelerating” phase, is not a relatively new, but surprisingly, is still an under-researched and very important phenomenon. Failure to understand the success prerequisites, could lead to targeting the wrong early adopters, to premature withdraw a new offering. What are the major drivers and barriers during the “Prospecting to Accelerating” (PTA) phase? How can managers influence the PTA? Which sectors, segments or countries should first be addressed? We need answers to these questions because of the critical importance of the phenomenon. Bridging the “Prospecting to Accelerating” phase is a very important and critical issue. It is a very complex multi-dimensional challenge and deals with many internal and external variables, which are not fully understood. Furthermore, empirical studies have been primarily conducted in business to consumer (B2C) settings and those studies were mainly quantitative in nature and essentially USA-based. Moreover, empirical holistic and multidisciplinary research, at project level, is missing. Essentially, the role of market and business growth capabilities and dynamic capabilities during the PTA is an open research space, situated at the intersection of several disciplines. In the previous chapter, we saw that capabilities can play a key role during early commercialisation of radical innovation projects. However many barriers and challenges have to be addressed and several concerns exist related to the use of capabilities by managers. Over time, several definitions have been given to “capabilities”. That was confusing, instead of clarifying. So what are those “capabilities”? Therefore, in the next chapter, the organisation theories and the capabilities domain will be studied.

CHAPTER 3: LITERATURE REVIEW: ORGANISATION THEORIES & CAPABILITIES

Introduction

In this chapter, the literature related to theories of organisations and capabilities, relevant within the context of market and business development, will be described and discussed. More specifically, first the resource based view (RBV) and the knowledge based view (KBV) will be analysed and will be followed by an analysis of the organizational capabilities and dynamic capabilities literature. Next, the marketing and innovation capabilities literature will be covered. Finally, conclusions will be formulated and critical gaps in the literature related to MBD capabilities will be discussed.

Resource based view

"*Marketing scholars have devoted remarkably little attention to applying RBV as a frame of reference in advancing marketing theory or in analysing core challenges in marketing practice*" (p. 778) (Srivastava et al. 2001).

Edith Penrose (1959) introduced the idea that profitability and growth of the firm should be understood in terms of capitalising and leveraging unique and idiosyncratic resources, which over time became part of the resource-based view (RBV) (Barney 1991; Barney 1995; Barney et al. 2001; Penrose 1959). The RBV assumes that organisations can be conceptualised as bundles of resources; that those resources are heterogeneously distributed, and that resource differences persist over time. This view is also reflected in the framework popularised by Barney (1995), in which he proposes an analysis of the organisation's internal strengths and weaknesses, with four basic questions about the nature and use of its resources. First, the question of value: do the resources enable the organisation to add value and to respond to environmental opportunities and threats? Second, the question of rareness: how many competing organisations already possess similar valuable resources? Third, do organisations that lack a valuable resource, face a major disadvantage in obtaining it, compared to firms that already possess it?

Finally, the question of the ability to organise: is an organisation organised to exploit the full competitive potential of its resources? (Barney 1995).

Furthermore, Peteraf (1993) introduced another model in which four properties of resources are necessary for creating a sustainable competitive advantage. First, the resources an organisation uses must be heterogeneous or distinctive and different from the resources used by or available to other organisations. Second, the heterogeneous resources that make an organisation successful, must originate in imperfect factor markets, which means, that a competing firm, either cannot acquire the distinctive resources that a successful organisation possesses, or must pay such a high price for such resources, that it cannot subsequently earn an economic profit. Third, the distinctive resources that make an organisation successful must be imperfectly imitable and substitutable, so that competing organisations cannot imitate successful firm resources or substitute other resources in their value creation processes. Fourth, the distinctive resources of the successful organisation, must be subject to imperfect mobility, so that the key resources of the successful firm cannot easily leave the organisation and will remain inside the organisation (Peteraf 1993). Both, organisation addressable resources (resources outside an organisation that the organisation can access when needed) and organisation specific resources (resources inside the firm) can be sources of competitive advantage, if they are deployed and coordinated more effectively by an organisation than by other organisations in the industry. Thus, even ordinary resources, readily available in the marketplace, can contribute to the creation of competitive advantage, if an organisation integrates, deploys and coordinates them better than their competitors (Sanchez and Heene 2004). A resource can be viewed as an asset or input to production - tangible or intangible - that an organisation owns, controls or has access to on a semi-permanent basis (Helfat and Peteraf 2003). The case for making the resources of an organisation the foundation for its strategy is based on two premises. First, internal resources provide the basic direction for an organisation's strategy. Second, resources are the primary source of profit for the organisation. The returns to an organisation's resources depend on the sustainability of the competitive advantage and on the ability of the organisation to appropriate the rents earned from its resources. Major determinants of sustainability are: durability, transparency, transferability and replicability (Grant 1991). Relational resources tend to be intangible and hard to measure. They are external to the organisation, often merely “available” and not “owned” (Srivastava et al. 2001). Strategic intent implies a sizable stretch for an organisation. Current resources are not enough. This forces the organisation to be more inventive, to make the most of limited resources. Whereas the traditional view of strategy, focuses on the degree of fit between existing resources and current opportunities, strategic intent, creates an extreme misfit between resources and ambitions. The challenge for the organisation is to close the gap by systematically building new advantages (Hamel and Prahalad 1989).

However, a critical reflection of the RBV indicates major shortcomings. A recent review and assessment of limitations and concerns, calls for clearer demarcations between what are and what are not resources (Kraaijenbrink et al. 2010). Fahy and Smithee (1999) argue: “*A broad literature has given rise to a great deal of ambiguity, inconsistent use of nomenclature and several overlapping classifications*” (p. 1) (Fahy and Smithee 1999). The RBV has a strong internal focus, essentially building on internal strengths and weaknesses, appears to be more appropriate for static markets, and has an emphasis on how organisations compete at a single point in time (Harreld et al. 2007). The RBV has not adequately explained how and why certain organisations obtain SCA in situations of rapid and unpredictable change (Teece et al. 1997). Also, the turbulent and changing nature of the environment suggests that resources cannot remain static and still be valuable. They must be continually evolving and developing, otherwise firms may only be able to be competitive in the short term. To have a persistent SCA, organisations must continue to invest in and upgrade their resources to create new strategic growth alternatives (Ambrosini and Bowman 2009). With its focus on possessing resources, the RBV is inherently static, not well equipped to explain the timing of when value is created, when rents are appropriated, and how firms innovate and generate new sources of SCA (Kraaijenbrink et al. 2010).

In the next section, the impact of viewing knowledge as a core resource and source of competitive advantage will be addressed.

Knowledge based view

"*Marketplace knowledge is important for developing competitive advantage; yet the RBV focus has been on internal assets*" (p. 781) (Srivastava et al. 2001).

The knowledge based view (KBV) can be considered as a spinoff of the resource based view (RBV) (Grant 1996). This view sees organisations as bundles of knowledge (Kogut and Zander 1996). It is the heterogeneous knowledge that is the main determinant of a sustained competitive advantage. This view considers organizational advantage of organisations over markets through their superior ability in creating and transferring knowledge. Knowledge creation results from new combinations of knowledge and resources. In that sense, it is the accumulation of knowledge through learning that constitutes a driving force in the development and growth of an organisation, because knowledge acquisition opens new growth opportunities and enhances the organisation's ability to exploit these opportunities. Relationships with other organisations are important for new information. Tacit knowledge is extremely valuable for organisations, because it is difficult to transfer and as such can generate a sustainable competitive advantage. Tacit knowledge is linked to individuals and is very difficult to articulate. Tacit knowledge is primarily seen through an individual's actions, rather than through specific explanations of what the individual knows. The knowledge based view finds, that because tacit knowledge is difficult to imitate and relatively immobile, it can constitute the basis of sustained competitive advantage (Gupta and Govindarajan 2000). Zahra and George (2002) on the other hand, distinguish between acquisition and assimilation of new external knowledge (i.e. potential absorptive capacity) and transformation and exploitation (i.e. realised absorptive capacity) and argue, that both components of absorptive capacity fulfil a necessary but insufficient condition to improve new product development (Zahra and George 2002b). Absorptive capacity is an important concept for inter-organizational learning and most effective, when there is sufficient similarity in the basic knowledge (enabling effective communication) but also sufficient diversity in the special knowledge. However, one of the criticisms is that the KBV is highly abstract. The concepts are hard to measure and learning is often treated as a black box. Therefore, the KBV has not been seen as a coherent theory (Grant 1996). It has been argued, that when the KBV is used as a theory of strategy, knowledge is typically conceptualised as a resource that can be acquired, transferred or integrated to achieve sustained competitive advantage (Eisenhardt and Santos 2006). As such, the KBV is reduced to a special case of the RBV rather than a unique theory of strategy. In the following section, the organizational capabilities literature will reviewed.

Organizational capabilities

"*Successful organisations know how to do things*" (p. 1165) (Dosi et al. 2008).

The RBV assumes, that when organisations have resources that are valuable, rare, inimitable and non-substitutable, they can achieve sustainable competitive advantage by implementing unique value creating strategies that cannot be easily duplicated by competing organisations (Eisenhardt and Martin 2000). Conceptually, capabilities are processes by which the resources are utilized (Amit and Schoemaker 1993) and are the main source of competitive advantage (Grant 1991). Capabilities could also be viewed as routines; however, Dosi (2008) distinguishes routines from capabilities and claims that capabilities involve more significant commitment, enable more significant outcomes and conscious decisions in its development and deployment and the exercise of capability is typically repetitious (Dosi et al. 2008). Practically, an organizational capability, is the ability to perform a particular activity (Helfat and Peteraf 2009) and what an organisation is capable of doing, is determined by its resources, processes and values (Christensen 1997; Christensen and Overdorf 2000; Christensen and Raynor 2003). These factors define a company's capabilities, as well as its disabilities or core rigidities (Leonard Barton et al. 1994). Creating capabilities involve complex patterns of coordination. You cannot see them or touch them, yet they make a difference. They are collective skills, abilities and expertise of an organisation. They form the identity and the personality of the organisation. The words ability, competence and capability are frequently used interchangeably, creating confusion. According to Ulrich and Smallwood (2004): "*Organizational capabilities reflect the organisation's collective expertise and define what your firm does best. Organizational capabilities are difficult to assess. Do not ignore them in favour of tangible easy to analyse assets*" (p. 2) (Ulrich and Smallwood 2004). Moreover, the capability based view (CBV) has a strong internal focus, essentially building on internal strengths and weaknesses, is largely static in nature, appears to be more appropriate for static markets, and has an emphasis on how organisations compete at a single point in time (Harreld et al. 2007). Another angle to view capabilities is through a strategic lens. According to Stalk, Evans et al. (1992), a capability can only be strategic from a customer perspective (Stalk et al. 1992), when there is a user need, when it is unique and difficult to replicate (Teece et al. 1997). Another typology, operational capabilities, or zero-level capabilities, permit an organisation to earn a living in the present (Ambrosini and Bowman 2009). Capabilities that lead an organisation to early success can later prove to be an impediment. Especially processes, by their very nature, are not meant to change. They are designed to create efficiency and consistency. As the organisation grows existing capabilities become disabilities/rigidities. Whereas resources and processes are often enablers that define what an organisation can do, values often represent constraints: they define what the organisation cannot do (Christensen and Overdorf 2000). Prahalad and Hamel (1990) proposed the notion of core competencies. They listed three criteria for a core competence. First, it should provide access to a wide variety of markets and have leverage potential. Second, it should be relevant to the customer's key buying criteria. Third, it should be difficult for competitors to imitate (Prahalad and Hamel 1990). Capabilities can also be viewed as building blocks of renewal (Zook 2007). However, most organisations lack the capacity to renew their capabilities quickly (Teece et al. 1997). Strategic capabilities most common in the literature, are primarily marketing related and technology related capabilities (Di Benedetto et al. 2008; Song et al. 2007). Moreover, the capabilities required to compete effectively across the various stages of the industry life cycle have not been explored rigorously (Lee 2009). Ultimately, it is unclear, in the context of radical ventures, how relevant organizational capabilities might be for creating a new market and building a new business. A key question for the research, therefore is: How pertinent are organizational capabilities for MBD?

In the next sections, dynamic, marketing and innovation capabilities will be analysed.

Dynamic capabilities

"A critical, unresolved issue that research has yet to address involves the distinction between dynamic and operational capabilities (p. 1243) (Helfat and Winter 2011). Dynamic capabilities concern change (Helfat and Peteraf 2009). In markets, where the competitive landscape is shifting, the dynamic capabilities by which managers integrate, build, upgrade and reconfigure internal and external capabilities to address rapidly changing environments, become the source of sustained competitive advantage (Ambrosini and Bowman 2009; Teece et al. 1997). Organisations with routines, that are capable of responding effectively to the competitive challenges of their environment, are able to survive at least until the next wave of environmental change occurs (Nelson and Winter 1982; Sanchez and Heene 2004). Conceptually, Helfat et al. (2007) define a dynamic capability as *"the capacity of an organisation to purposefully create, extend, and modify its resource base" (p. 4) (Helfat et al. 2007)*. More practically, Teece (2007), frames dynamic capabilities, as opportunity identification ('sensing') and investment in these opportunities ('seizing') lead to new positions and paths (reconfiguring), which then affects firm performance in terms of growth, profits and competitive advantage (Teece 2007).

This is in line with Eisenhardt and Martin (2000) who described dynamic capabilities, as processes that firms can use to obtain, integrate, reconfigure and release resources, leading to new resource configurations, which are path dependent and embedded in the organisation (Eisenhardt and Martin 2000) and their use is intentional (Ambrosini and Bowman 2009). The concept of dynamic capabilities includes the capacity with which to identify the need or opportunity for change, formulate the response for such a need or opportunity, and implement with determination the critical actions (Helfat et al. 2007; Judge and Blocker 2008).

Interestingly, Helfat and Peteraf introduce the notion of capability lifecycle, to indicate the dynamic character of capabilities (Helfat and Peteraf 2003). The essence of dynamic capabilities is the ability of a firm to identify new growth opportunities and to seize them. Dynamic capabilities are not abstract academic concepts, but a concrete set of mechanisms that help managers address the fundamental question of strategy, which is to develop a truly sustainable competitive advantage through on going dynamic organizational realignment *(Harreld et al. 2007)*. In volatile markets, it makes sense to use dynamic capabilities to build new resource configurations and move into fresh competitive positions, using a strategic logic of change. That said, despite the intuitive attraction of the concept of dynamic capability in the context of radical ventures, there is little research to shed light on which dynamic capabilities are required for either developing the market post launch, and how, if at all, they relate to the dynamic capabilities required to develop a sustainable business, which in the context of industrial markets requires, over time, the development of stable exchange relationships. The research issue therefore relates to the extent to which the dynamic capabilities as outlined above are germane to the process of market and business development.

Marketing capabilities

"*Entrepreneurial marketing is essentially building credibility in the marketplace*" (p. 5) (Tyebjee et al. 1983).

Day has been pioneering with the marketing capability subject since the early 90s. Marketing capabilities have been defined initially, as integrative processes designed to apply the collective knowledge, skills, and resources of the firm, to the market-related needs of the business, enabling the business to add value to its goods and services and meet competitive demands (Day 1994). Although competing firms may focus on similar market needs, the idiosyncratic way in which each group of individuals within each firm integrates knowledge creates many unique ways of solving similar customer needs. Therefore, firms can be expected to evolve identically, but not with identical marketing capabilities. This helps prevent these value-adding capabilities, from being easily imitated by competitors and also prevents easy substitution of one capability for another. This also prevents these capabilities, from being easily transferred between competitors. As a result, these capabilities are able to form the basis for sustainable competitive advantage (Grant 1996; Grant 1991; Vorhies and Harker 2000).

Basically, marketing capabilities, can be described as outside-in capabilities, inside-out capabilities, spanning capabilities (Day 1994) and networking capabilities (Greenley et al. 2005). Marketing capabilities can be sorted into three categories depending on the focus of the defining processes. At one end of the spectrum are those that are deployed from the inside-out and activated by market requirements, competitive challenges and external opportunities. Examples are manufacturing and technological knowhow. At the other end of the spectrum, are those capabilities whose focal point is almost exclusively outside the organisation. The purpose of these outside-in capabilities is to connect the processes that define the other organizational capabilities to the external environment and enable the business to compete by anticipating market requirements ahead of competitors in creating durable relationships. Finally, spanning capabilities are needed to integrate the inside-out on outside-in capabilities. New offering development and customer order delivery are critical activities that must be informed by both external (outside-in) and internal (inside-out) analyses.

The most distinctive features of market driven organisations are their mastery of the market sensing and customer linking capabilities. Market sensing determines how well the organisation is equipped to continuously sense changes in its markets and to anticipate the responses to marketing actions. Customer-linking capabilities, includes abilities and processes needed to achieve collaborative customer relationships so customer needs are quickly clear (Day 1994; Day 1999; Day 1990). This suggests that managers seeking innovation success cannot afford to ignore the environment and do so at their peril. The provision of customer value is essential for positive results (Hunt 2000). Thus, leaders need to monitor environmental contexts, adjust investments and streamline market processes (Paladino 2008).

Marketing plays a paradoxical role in supporting radical innovation initiatives. Technology capabilities matter most during the upstream radical innovation lifecycle. However, marketing capabilities do also matter, because the first applications of an emerging technology are often in marginal markets (Christensen 1997; Christensen and Overdorf 2000; Christensen and Raynor 2003). Therefore, in order to succeed, it is critical for the RCV, to be able to develop this emerging marginal market. The capability to successfully develop and commercialize technology innovation, is based on the interaction between a firm's strategic orientation, targeting, and the way it implements its market orientation (Desarbo et al. 2005). Marketing capabilities are important (Krasnikov and Jayachandran 2008), but appear not to be sufficient to succeed with MBD. Other capabilities, like innovation and technology for example, are definitely critical for radical innovations, due to the "technology push" nature of most radical innovations and is consistent with the findings of O'Connor et al. (O'Connor 2008; O'Connor et al. 2008b; O'Connor et al. 2008a). If marketing capabilities are not sufficient; what is missing? In the next section, the innovation capabilities will be analysed.

Innovation capabilities

"*Companies are recognizing the need to develop an innovation capability that is sustained over time rather than a program du jour* " (p. ix) (O'Connor et al. 2008b).

Research by O'Connor et al. (2008) indicated, that during the early stages of a radical innovation, technology-related capabilities are relatively more important than marketing-related capabilities (O'Connor et al. 2008b). Basically, technology capabilities cover R&D development, new product development and new manufacturing processes. Over time, information technology capabilities have been gaining in relevance, allowing the diffusion of technical and market information effectively throughout all relevant functional areas. Vorhies et al. (2002) view innovation capabilities, as processes by which organisations acquire market and technical knowledge, integrate this new knowledge, capture new insights and combine these insights with complementary resources, in order to create meaningful new value offerings (Vorhies et al. 2002). Furthermore, a fundamental challenge for decision makers is, how to identify which organizational capabilities to develop and which ones are no longer important, and this in order to gain and sustain a competitive advantage (Prasnikar et al. 2008).

Important roles of marketing in radical innovation projects include investigating and identifying if there is a real market need and understanding competitive dynamics. O'Connor et al. (2008) introduced a firm level framework, for building a major innovation dynamic capability. The framework is composed of seven elements that together form a management system, rather than a process-based approach to nurture radical innovation. These system elements are: an identifiable organisation structure; interface mechanisms with the mainstream organisation; exploratory processes; requisite skills and talent development; governance and decision-making mechanisms at the project, portfolio, and system levels; appropriate performance metrics; and an appropriate culture and leadership context. It is argued, that dynamic capabilities, for phenomena as complex as major innovations, must be considered in a systems fashion, rather than as operating routines and repeatable processes (O'Connor et al. 2008b; O'Connor et al. 2008a). O'Connor et al. (2008) also see organizational capacity, as the context and conditions for radical innovation in the company at a given time. This includes the ability and the will to resource and pace radical innovations, which is influenced by both internal and external factors. Basically, they divide radical innovation capabilities in three distinct building blocks. First, discovery is the creation, recognition, articulation, and elaboration of opportunities. Second, incubation is about the new developments and concurrent experimentation. Third, acceleration is a focused investment to stimulate growth. Radical innovation, according to O'Connor et al. (2008), occurs infrequently, irregularly and unpredictably in most companies. A radical innovation capability is the ability of a firm to commercialize radicals repeatedly. It provides the foundation for a company's on-going renewal and growth (O'Connor 2008; O'Connor et al. 2008b).

Strategic capabilities that the marketing and innovation management literature, has often linked to SCV are marketing capabilities (1) with abilities, such as targeting and capturing knowledge of customers, channels and competitors. These capabilities enable an organization, to better implement its marketing philosophy and enhance the integration of effective market programmes. A second group relates to market linking capabilities (2) which include for example, market sensing and technology monitoring.

These strengths allow a firm, to increase competitiveness, by detecting changes in the market environment. A third cluster has been described in relation to technology capabilities (3) which are among others, covering new product and services development and new manufacturing processes. These capabilities allow a firm to rejuvenate the innovation portfolio, to reduce costs and to become more efficient. Finally, another category is labeled as management-related capabilities (4) which include operational activities like for example, human resource management and financial management.

Interestingly, Govindarajan and Trimble (2005) and Markides (2008) link capabilities to organizational DNA, which is always present, but is not easily observable. DNA determines the organisation's collective skills and abilities and behaviours. Organizational DNA is not simply inherited at birth, because leaders select the rules embedded in organizational DNA. It can be changed, though not so easily. A great organisation can effectively cope with major changes, like forgetting, borrowing and learning (Govindarajan and Trimble 2005b; Govindarajan and Trimble 2005c). Furthermore, Markides suggests that in order to influence the organizational DNA, the organizational environment has to be manipulated, or created and the desired behaviour ultimately will emerge (Markides 2008).

Moreover, according to Sawhney et al. (2006), the innovation subject has risen to the top of the CEO agenda, but too many organisations have a too narrow view of it. Many perceive innovation only, as synonymous with new product development. Best practices get copied, encouraged by benchmarking (Sawhney et al. 2006). To avoid innovation myopia, Sawhney et al. (2006) suggest managers, to think holistically in terms of all possible dimensions, through which their organisations can innovate. Accordingly, they define: "*Business innovation is the creation of substantial new value for customers and the firm, by creatively changing dimensions of the business system*" (p. 76) (Sawhney et al. 2006). When a company identifies and pursues neglected innovation dimensions, it can change the basis of competition and leave other firms at a distinct disadvantage, because each dimension requires a different set of capabilities, that cannot be developed or acquired overnight (Sawhney et al. 2006).

Finally, in the next section, conclusions will be formulated and critical gaps in the literature related to MBD capabilities will be summarised.

Conclusions

In this chapter, the literature related to theories of organisations and capabilities, relevant within the MBD context, have been described and discussed. More specifically, first the resource base view and knowledge base view have been analysed. Second, an analysis of organizational capabilities and dynamic capabilities literature has been conducted. Next, the marketing capabilities and innovation capabilities literature has been covered.

Capabilities come in many forms (Helfat et al. 2007; Lynch et al. 2003). Basically, this research views an organizational capability as the overall collective ability and the capacity of an organisation to perform particular core and added value activities (Helfat and Peteraf 2009; Ulrich and Smallwood 2004). Dosi (2008) distinguishes routines from capabilities and claims that capabilities involve more commitment and the execution is typically repetitious (Dosi et al. 2008). Practically, what an organisation is capable of doing, is determined by its resources, processes and values (Christensen 1997; Christensen and Overdorf 2000; Christensen and Raynor 2003). On the other hand, operational capabilities enable an organisation to earn a living in the present (Helfat et al. 2007), while strategic capabilities, are customer centric and are critical for obtaining and sustaining competitive advantage (Stalk et al. 1992). Strategic capabilities most common in the literature, are primarily marketing related and technology related capabilities (Di Benedetto et al. 2008; Song et al. 2007).

In contrast, dynamic capabilities are organizational capabilities that deal with a changing environment. A dynamic capability is the capacity of an organisation to purposefully create, extend or modify its resource base (Helfat et al. 2007) and those dynamic capabilities involve sensing, capturing and transforming activities (Teece 2009). The concept of dynamic capabilities includes the capacity with which to identify the need or opportunity for change, formulate the response for such a need or opportunity, and implement the course of action (Helfat et al. 2007; Judge and Blocker 2008). Moreover, the capabilities required to compete effectively across the various stages of the industry life cycle have not been explored rigorously (Lee 2009).

Ultimately, it is unclear, in the context of radical ventures, how relevant organizational capabilities might be for creating a new market and building a new business. A key question for the research, therefore is: How pertinent are organizational capabilities for MBD? MBD capabilities appear to be situated at the intersection of organizational, marketing, entrepreneurial, innovation and strategic capabilities. They have their own characteristics and have to deal with a large spectrum of major and specific challenges. The vision of domain experts can be summarised as follows:

- "*The importance of new product development is acknowledged ... to the neglect of the market launch and development phase*" (p. 11) (Baker, 1983).
- "*There is much to be learned about radical innovation capabilities…"* (p. 496) (O'Conner and Demartino, 2006).
- "*Research can identify how strategic capabilities are to be deployed to increase likelihood of commercial success*" (p. 430) (Di Benedetto, De Sarbo, Song, 2008).
- "*Take-off is important for an innovation. It is a relatively new and under-researched phenomenon in marketing*" (p. 630) (Tellis, 2008).
- *"Despite the general capability requirements for each stage of the life cycle, little research has compared the relative effectiveness of different types of capabilities that would allow a firm to control its entry timing as a market evolves from the introduction stage to the growth stage*" (p. 87) (Lee, 2009).

Despite the intuitive attraction of the concept of capabilities and dynamic capabilities in the context of radical ventures, there is little research to shed light on which capabilities are required for either developing the market post launch, and how, if at all they relate to the capabilities required to develop a sustainable business which in the context of industrial markets requires, the development of exchange relationships. The research therefore, relates to the extent to which the capabilities and dynamic capabilities, as outlined above, are germane to the process of MBD. In the next chapter, the research methodology and methods will be described and discussed.

CHAPTER 4: RESEARCH METHODOLOGY AND METHODS

Introduction

This chapter covers the research methodology and methods and will start by describing and discussing philosophical research assumptions that have been considered during this research project. In the second section, the motivation to apply a field research approach, will be explained and described. Next, the research methodology and methods will be extensively addressed. Case studies as tools for generating and testing theory have provided the strategic management field with ground-breaking insights (Eisenhardt 1989b; Eisenhardt and Graebner 2007). Case studies are typically carried out in close interaction with practitioners and they deal with real management situations. As such, they represent a methodology that is ideally suited for creating managerially relevant new knowledge (Gummesson 2000). However, in the better research projects, relevance and rigour are simultaneously addressed (Gibbert et al. 2008). Case studies were the appropriate choice, due to the multidimensional character of radical innovations and due to the dynamic and complex phenomena. Case research, requires candid conversations and necessitates consideration of extensive data over several years, not just a snapshot. Moreover, different approaches will be clarified and discussed, like for example: theoretical case sampling, triangulation, validity and reliability criteria for case study research.

Philosophical research assumptions

Researchers are governed by a code of practice that has to be characterised by a truth and reality seeking orientation (Chia 2002). But, what is reality and how to research reality? Every research project is based on philosophical assumptions about the nature of the world, the nature of reality and how knowledge about the world can be obtained. These assumptions provide the foundations on which to further construct the research (Easton 2010). Often, those assumptions are implicitly embedded in the researcher's mind, but it is good practice to make them explicit early on (Myers 2009). Creswell (2009) argues that although philosophical considerations remain largely hidden in research, they influence the practice of research and core philosophical ideas need to be made explicit (Creswell 2009). Whenever a research project is carried out, researchers have to make assumptions, about how the world is and how we can come to know it. While philosophy can never provide definite answers, it can ask relevant questions and provide guidance and justification for courses of action (Easterby-Smith, Thorpe et al. 2002). What is the nature of reality? Are the patterns and regularities we seemingly find around us, products of our own imagination or are they embedded in the external objective reality?

Philosophy is primarily concerned with rigorously establishing, regulating and improving the methods of knowledge-creation in all fields of intellectual endeavour, including the field of management research. Questions of ontology or the nature of reality are central. Epistemology deals with questions, about how and what is possible to know. In epistemological investigations, we attempt to reflect on the methods and standards through which reliable and verifiable knowledge is produced. Introduced by science historian Kuhn (1970), a paradigm was originally used to describe a scientific ideology as a constellation of concepts, values, perceptions and practices shared by a community of scholars. Since then, the term has spread to other areas, including management. Instead of labelling an ideology, a paradigm, a more recent term, ‘worldview’ is used. Paradigms or worldviews are beliefs of the researcher about his research space, impacting his research agenda and directions (Creswell 2009).

This study considers critical realism as a coherent and rigorous philosophical position (Easton 2010). Critical realism, as its name implies, shares the ambitions of realism. Critical realists argue that there is a level of reality below the everyday levels of events and our experiences of them (Fisher 2007). It is at this level, that the mechanisms that drive events in the world exist. Unfortunately our knowledge of this level is not direct; it can only be inferred. So, there is a claim that, there is a level of reality that is not easily accessible, because it is hidden from common view. To discover this level of reality requires honest and intelligent people to work hard at the problems and to become adept at discovering these mechanisms. The need for honesty arises, because those who do critical realist research into business and management, may discover bad approaches that ought to be made known and actions have to be taken to correct them. To discover this level of reality, requires hard work and deep digging for compelling insights (Fisher 2007). Critical realism claims, that there exists an objective knowable, mind-independent reality, whilst acknowledging the roles of perception and cognition (Easton 2010). Critical realism adds the notion of layers or stratification into the understanding of knowledge. Myers (2009) adds that, rather than simply describing knowledge and beliefs (as interpretive researchers do) the idea is to challenge prevailing beliefs, values and assumptions, that might be taken for granted by the subjects (Myers 2009).

Critical realists propose an ontology that assumes the existence of a reality independent of researchers. They accept that reality is largely socially constructed. Events or outcomes are what critical realists investigate, as they occur or as they happened. They also believe, that the non-occurrence of an event, when expected, requires explanation and can provide useful insights (Easton 2002). Critical realists argue that there are two types of relationships among entities; necessary and contingent and a distinction is made between context and contingency. Context indicates that the relationship between the entities and the environment is relevant (Easton 2010).

Critical realism looks for explanations; answers to the question “what caused events to happen?” Critical realists argue that there should always be competing explanations, since different interpretations of data are necessary to ensure that the “better” interpretation is made. Critical realists construe (interpret or explain) rather than construct (build, or form) the world. Critical realism claims that the meaning of social phenomena has to be understood, it cannot be measured or counted; there is always an interpretative element. The empirical domain is where investigations are made and experienced by researchers. However events occur in the actual domain and may be understood quite differently. There is a process of interpretation that intervenes between the two domains. Events occur as a result of mechanisms that operate in the real domain. We see just the tip of an iceberg (Easton 2010).

Critical realism relies on the researcher to collect data to distinguish among alternative explanations and on the community of researchers to debate them thoroughly. Only by seeing the same data through different lenses can understanding of a part of the real world occur. Critical realism is particularly well suited to case research. It justifies the study of any situation, regardless of the numbers of research units involved, but only if the process involves thoughtful in-depth research with the objective of understanding why things are as they are. Critical realists accept that there are differences between the empirical, the actual and the real world. Seeking an explanation requires that the researcher frequently goes back to the field to collect more data until epistemological closure is obtained (Easton 2010). "Retroduction" is a key epistemological process that critical realists recognize in order to identify the mechanisms that explain what caused particular events to occur. Case studies may employ both deductive and inductive cycles of data collection. "Deduction" helps to identify the phenomena of interest, suggests which mechanisms are relevant and provide links with previous research and literature. "Induction" tests the explanations and continuously asks the question why? Finally there is the issue of deciding whether an explanation is "good" or not. Therefore, a useful concept is "judgemental rationality" which means that we can publically discuss our claims about reality as we think it is. By comparatively evaluating existing arguments, we can arrive at reasoned, though provisional, judgements about what reality is objectively like; about what belongs to that reality and what does not. Overall, the research process is one of continuous cycles of research and reflection. The final result is the identification of mechanisms having caused the events to occur (Easton 2010).

To conclude: critical realism wants to understand and the aim is to construe (interpret or explain) rather than construct (build, or form). Critical realists believe that by seeing the same data through different lenses, that this is beneficial for our understanding of a part of the real world. Interestingly, the critical realism philosophy appears to be well suited for this research project.

In the next section, the research methodology and research methods will be described and discussed.

Research methodology

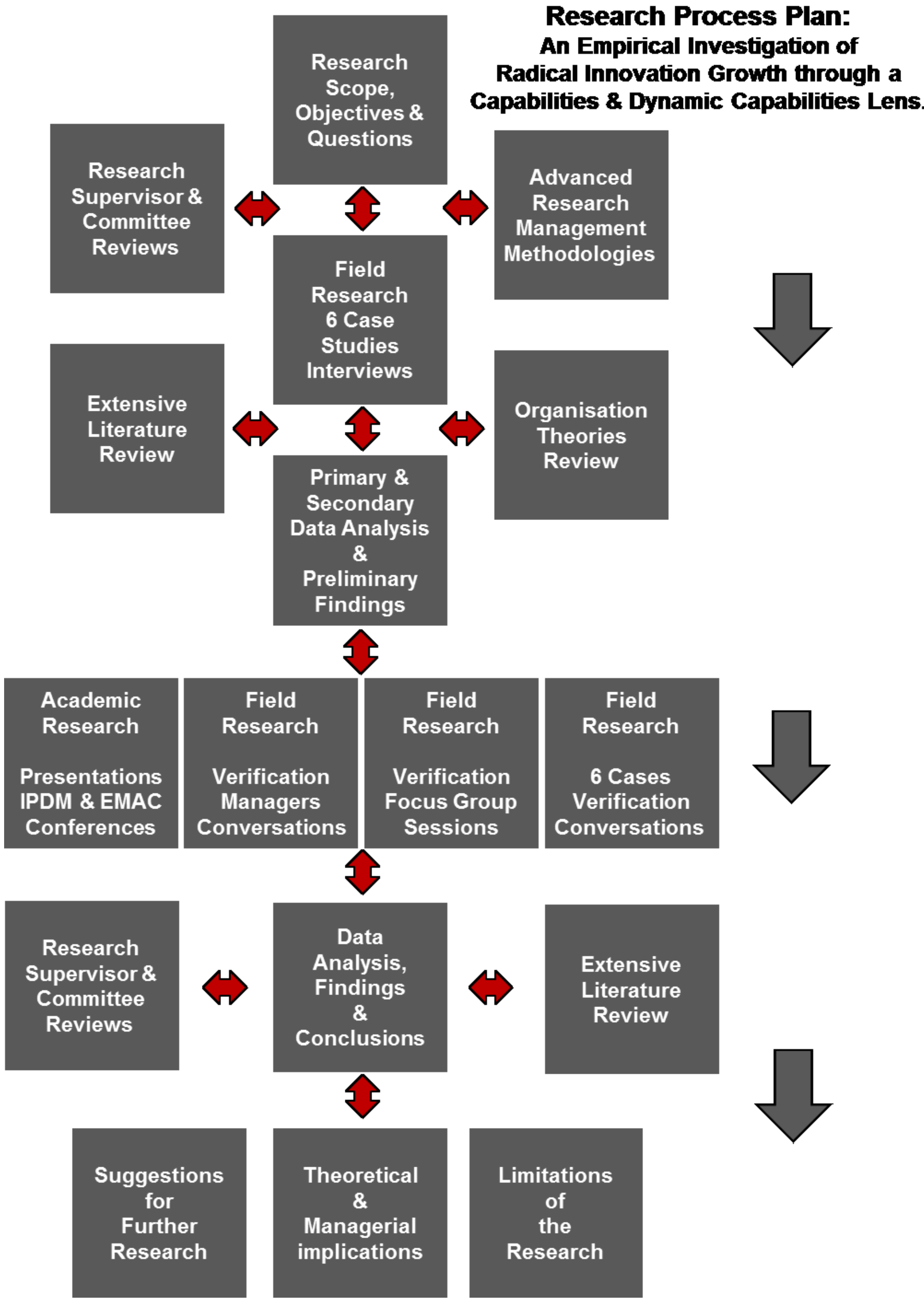
The research methodology was a longitudinal and comparative case analysis with interviews, focus group sessions and discussions with managers from different functional background. Figure 4 gives an overview of the research process plan, with the different steps that will be described in this section. The selected cases had their roots in knowledge intensive, industrial and established multinational companies, based in Europe and the Middle East (EMEA). Over a period of three years, 6 cases have been studied and more than 100 managers have been involved. The cases had to be radical innovation projects, having reached the commercialisation phase. Several knowledge intensive industries were covered and different companies involved during the assessment.

The RCV had to pass the newness test and the radicalness test: new offerings for the company with significant gain benefits and/or pain reducers and/or addressing new emerging markets (Leifer et al. 2000). The definition of RCV, used for this study, is an adaptation from Block and MacMillan (1995) covering the following characteristics: (1) Renewal: Focus is on strategic renewal and/or new profitable growth opportunities. (2) Relatedness: Involves an activity new to the organisation which can be product or/and market related but close to the core business. (3) Radical: the offering should be drastically different and be new to the market or/and new to the organisation (Leifer et al. 2000). (4) Risks and uncertainty: Involves significant higher risks of failure than the organisation's base business. Is characterised by a high uncertainty. (5) Resources: Is conducted primarily internally with a high degree of autonomy while leveraging internal resources and involving external complementary partners (Block and MacMillan 1995).

An overview describes the six cases: RiskCo, WoodCo, StressCo, SmartCo, BioCo and CoreCo. In chapter 5 the six cases are analysed in detail. In a couple of words:

- ✓ RiskCo: is a successful RCV of a financial and insurance group who succeeded with risk insurance solutions for risk protection relying on the insured's self-management. Five managers have been interviewed and twice a year, a verification session has been conducted with the CEO.

Figure 4: Research process plan



- ✓ WoodCo: is a successful RCV of a chemicals company, who developed and commercialized breakthrough biomass based wood modification chemicals. Seven managers have been interviewed and twice a year, verification sessions have been conducted with the managing director, the business development and R&D manager.
- ✓ StressCo: is a successful RCV of a world leader in specialty plant nutrition, who developed and introduced a breakthrough new generation anti-stress product line. Five people have been interviewed and twice a year, a verification session has been conducted with the global business development manager and product manager.
- ✓ SmartCo: is a RCV of an ICT company who targets the utility sector, for them a new market sector, with a next generation smart metering solutions. Six managers have been interviewed and twice a year, a verification session with the marketing and business development directors has been conducted.
- ✓ BioCo: is a struggling RCV of a chemical company who developed and commercialized a new additive to protect biodiesel engines. The CEO and four marketing and product managers have been interviewed and twice a year, a verification session with the marketing manager has been conducted.
- ✓ CoreCo: is a dismantled RCV of an ICT company who has been established to develop a breakthrough new generation core router for an emerging market. Seven managers from different functional departments have been interviewed and twice a year, several verification sessions with product managers have been conducted.

The six cases were selected because they fulfilled the criteria as described above as a RCV. Moreover, they guaranteed access to management, a willingness to share and to spend time. At the start, one case was already very successful (RiskCo) and another one was a failure (CoreCo), the other four had just entered the market.

Basically, the research was divided into a short pre-understanding and two main phases. Initially, after the short pre-understanding assessment, which was done in order to explore the research perimeter (Gummesson 2000), the research focused on six cases, with interviews with managers and complemented with extensive case data analysis. Preliminary findings were established and referenced to the literature. In a second phase, those preliminary findings were confronted with several managers from the case studies and complemented with additional new managers from other companies, through interviews and focus groups sessions. This "second" field research was very useful to verify primary findings, to be challenged and enabled to enrich the study. Five focus group sessions with participating managers, from different functional departments, have been conducted with the following main companies:

- ✓ ABX is a global leader in power and automation technologies and solutions that enable industrial customers improve their performance. ABX operates in more than 100 countries and supports global and local customers. Two focus group sessions were conducted in the Middle East, with 15 and 16 participations of senior marketing, product, sales and general managers from across the Middle East.
- ✓ AMX is a global leading provider of world-class medical devices and therapies for health. AMX is highly innovation driven and keeps developing new therapies to restore bodily functions and to enable people to regain control of their lives. A focus group session was conducted with 4 participants from the EMEA marketing team in the Netherlands.
- ✓ ATR is a global leading supplier of plastic films, nonwovens and laminates for the personal care. ATR is committed to provide innovative solutions, based on customer insights and global product capabilities. A focus group session with 14 managers from different functional departments from across Europe was conducted in Italy.
- ✓ AKX is a bioscience company, committed to improve health and nutrition of the world, with functional products that deliver maximum results. AKX commits excellence in their research group and in all of their internal business areas and with new and better nutritional solutions. A focus group session with 8 managers from the marketing, product management and sales support team, took place in Belgium.

Other interviews were held with more than twenty managers, industry sector representatives and other innovation domain practitioners. Moreover, the participating managers came from different functional departments including - CEO or RCV leader, product managers, marketing managers, sales managers, key account managers, business development managers, engineering managers, finance, HR, manufacturing managers. The interviewees were complemented with extensive data analysis of public documents, such as websites, articles and private documents, such as minutes of meetings and marketing and business plans. On the other hand, feedback from the academic experts was also captured. Over the years, three papers have been developed and presented at three international leading conferences, which proved to be very useful for learning about similar and related research projects. The first conference was the 17th International Product Development Management Conference in Murcia, Spain, June 13-15, 2010. This was followed by the 40th EMAC European Marketing Academy Conference in Ljubljana, Slovenia, May 24-27, 2011. Finally I attended and presented at the 18th International Product Development Management Conference in Delft, Netherlands, June 5-7, 2011.

A key question was: why case studies? Basically, the longitudinal and multi-case method appeared to be the best option for addressing the formulated research objectives and questions, within the research context. Indeed, the management of radical innovations is a rich and complex problem and market and business development in industrial markets is a major challenge (Govindarajan and Trimble 2005c). Truly understanding what works, why and how in such a competitive and volatile environment, favours a qualitative research approach, particularly when exploratory in nature and if analysis of changing organizational behaviour over time is important (Govindarajan and Trimble 2005c; Markides 2008). Qualitative methods have major strengths in their ability to look, at how change processes over time, to understand people's meanings, to adjust to new issues and ideas as they emerge, and to contribute to the evolution of new theories (Eisenhardt 1989b; Gummesson 2006). When there is a need for exploration and explanation of complex phenomena, and there is considerable ambiguity regarding organizational context, case study design - which ask "how" and "why" questions – is the preferred methodology (Yin 2003). Case study research is of particular value when the environment under study is messy (Harrison 2002), when many contextual variables from a variety of perspectives have to be assessed (Gummesson 2006), when investigators need to retain meaningful characteristics of real-life events (Yin 2003). Harrison (2002) argues that case research is about engaging with the complexities of the real world and about making sense about them. Ultimately, the rewards are deeper insights about reality (Harrison 2002). While surveys require parsimony with relatively few organizational variables that can be taken into account, a case study can address many contextual variables from a variety of perspectives. It is about engaging with the complexities of the real world and about making sense about them. A 'deep dive' approach is a prerequisite; the rewards are deeper insights about reality (Harrison 2002). Case study research could more accurately be described as a research strategy. Actually, it can be viewed as an 'umbrella' for several methods (Gummesson 2000; Harrison 2002). An important advantage with case studies is the opportunity for a holistic view of the researched topic. Holism could be described as the opposite of reductionism. Reductionism can be defined as breaking down the research into small and fragmented parts that can be put together, like a puzzle, to establish a whole picture. However, according to the holistic view, the whole is not identical with the sum of the parts. Consequently, the whole can be understood only by treating it as the central object of study (Gummesson 2000). Gummesson argues: *"If you want an in-depth understanding of processes, you need not to study large amounts of cases*" (p. 3) (Gummesson 2000). However, multiple case studies increase the access to reality, emphasize the rich, real-world context in which the real phenomena occur and typically provide a stronger base for theory building (Eisenhardt and Graebner 2007; Yin 2003). Critical realism tends to favour case study research, because case research is suited to explain outcomes, which are attributable to events and context (Easton 2010). Field based research can narrow the gap between practice and research, because it takes the researcher to the field for observation and dialogue (Gummesson 2000). The case study implementation process was largely based on recommendations of Eisenhardt (1989), Gummesson (2000), Easton (2010) and Yin (2003). The research relied on face-to-face semi-structured interviews and has been complemented with a number of focus group conversations. Those interviews have been complemented with extensive data analysis of public documents, such as websites, articles and private documents, such as minutes of meetings and business plans (Easton 2010; Eisenhardt 1989b; Eisenhardt and Graebner 2007; Gummesson 2000; Yin 2003).

In the next section the research methods will be addressed.

Research Methods

Qualitative research methods have to make sure, that data is systematically gathered and analysed. Figure 5 gives a map with the different research steps. According to Myers (2009), it is important that there is a continuous interplay between data collection and analysis. This research did not start with a set of hypotheses to test. Rather, the aim was that concepts and theory had to emerge from the data. Having done a literature review, did not represent an obstacle. The key thing was to be creative, have an open mind and execute with rigour (Myers 2009). Starting point was identifying representative cases, identifying and convincing accessible business leaders, who were willing to spend time and to share experiences. An excellent way to capture insights was to engage in dialogues through face-to-face contacts. Numerous interviews and discussion sessions have been conducted, following the theoretical sampling approach, until a saturation of the data was noticed (Creswell 2007).

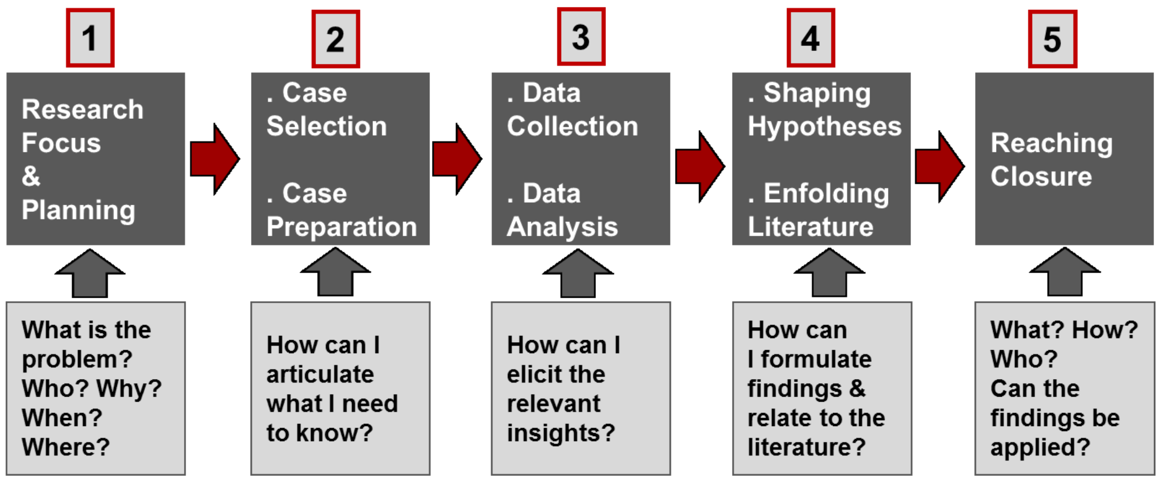
After having collected and transcribed the data, the next stage of qualitative data analysis was open coding. Open coding involved analysing the text and summarising this text (Myers 2009). As open coding was conducted, one of the most important activities was that of constant comparison. The following stage was the interpretation of categories, also called actual coding. The final stage, theoretical coding, involved the formulation of a theory. The aim was to create predictive statements about the phenomena (Myers 2009). Throughout every stage it was important that a critical and creative thinking occurred. Strauss and Corbin (1998) argue that creativity is essential and procedures should not be followed in a dogmatic and inflexible manner (Strauss and Corbin 1998). However, a major challenge was to rise above the detail and to see the bigger picture (Myers 2009). Two fundamental criteria of concern were the rigour and validity of the qualitative data analysis. For validity, generalization and reliability purposes, an extensive database was set up (Yin 2003). To reduce the likelihood of misinterpretation, a triangulation procedure has been followed. Triangulation is generally considered as a process of using multiple perceptions to clarify meaning and verifying the repeatability of an interpretation (Stake 2005). Furthermore, theoretical sampling was applied, which means that cases were selected because they were particularly suitable for identifying relationships and logic among phenomena (Eisenhardt 1989a; Eisenhardt and Graebner 2007).

Data collection. The research relied on open and semi-structured interviews. An interview protocol for asking questions was developed and answers recorded during the interviews. This was complemented with extensive data analysis of public documents, such as, websites, articles and private documents, such as, minutes of meetings, reports, presentations and business plans. Initially, a phone interview was conducted, explaining the scope, objectives and motivation of the research. During that call, the radicalness of the initiative, accessibility for interviews and willingness to share insights was verified. Prior to each interview, secondary material was analysed to verify that the case was in line with the study objectives and to increase the familiarity with the case. The bulk of primary data was captured during a series of open interviews and interventions which took 1 to 2 hours, all taped and transcribed. Validation was guaranteed through feedback and respondent validation. Concurrently over time, a massive amount of secondary data from internal reports, presentations, business plans, and emails with various internal and external stakeholders was analysed. In parallel, secondary external data was assessed from competitors, customers and sector associations and regulators.

Data analysis. A fine-grained analysis was used to systematically analyse the data and tease out patterns and categories (Easterby-Smith et al. 2002; Eisenhardt and Graebner 2007). The data was coded and labelled according to qualitative analysis methods (Strauss and Corbin 1998). For the codification, several stages were applied iteratively throughout the research. After a comparison of labels, the labels were categorized into a number of groups. Based on the codification and categorization of individual cases, cross-case analysis was performed to find patterns and differences between the cases (Eisenhardt 1989a).

A within-case reflection phase focused on putting into perspective, identifying differences and conflicts. Afterwards, a cross-case pattern analysis was conducted, looking through multiple lenses. Next, the conceptualization took place, with an articulation of what was really going on. When this was finished, the grouping into clusters was done (Easterby-Smith et al. 2002).

Figure 5: Research methods: Analysis process overview



Shaping findings and unfolding literature. Throughout every stage, the research followed strict procedures but at the same time, remained critical and creative (Strauss and Corbin 1998). The expertise and experience of the researcher made it possible to rise above the detail and to see the bigger picture, while simultaneously guaranteeing a clear chain of evidence linking the findings to the data (Myers 2009). For validity, generalization and reliability purposes, steps of the procedures have been individual lessons learned, common themes, constant comparison over time and across-cases and interpretation of categories, with the aim to create predictive statements about the phenomena (Myers 2009). With several "outsider" practitioners, not part of the 6 main case studies, parallel interviews were conducted to gain complementary insights and to cross-check emerging patterns. Several discussion sessions have been held migrating over time from broad-based open ended questions towards more specific questions. Finally, the findings, with an emphasis on managerial implications, have been discussed with participants of the cases. This discussion enabled to formulate the conclusions. Concurrently, a detailed literature review was established with comparisons of conflicting and similar statements and interrelationships. Furthermore, a cross-case analysis has been conducted. Cross-case analysis was important to enhance generalizability or in other words guarantee the relevance or applicability of the findings to other similar settings. To aid in the comparison of the different cases, "Harvey Balls" have been used to rate the impact of each capability on the outcome. As a preliminary attempt, a high-level estimation of the impact on the outcome of each case has been determined, based on discussions with managers in the second research phase. The assessment is based upon the extent to which those capabilities strengthen and have a positive impact on the outcome of the case. The degree of "impact on the outcome" is expressed in "Harvey Ball" notation on a linear scale from "unfavourable impact on outcome" to "very favourable impact on outcome" and with a median value "neutral impact on outcome".

◔ Unfavourable impact ◑ Neutral impact ◕ Favourable impact ● Very favourable impact

For example, if a ◔ score is given to the situation, then this would mean this capability would be unfavourable or non-beneficial to the outcome. In contrast, a ● score would indicate it would be very beneficial or very favourable to the outcome. Our fit assessments are based and derived from field research with more than 100 managers and need to be further verified by more in-depth and quantitative research. This detailed analysis was beyond the scope of this research project.

Reaching closure. Using a holistic, longitudinal multi-year, multi cases approach, with multiple sources of evidence, rigour and triangulation, allowed a deep exploration of the research questions and enabled to bring the research to a conclusion (Voss et al. 2002). Table 2 gives an overview of the research process, activities and reasons why those steps have been implemented.

The process enabled to formulate the findings in the next chapter. But, before moving to those findings, in the next section, the research validity and reliability will be covered and discussed.

Table 2: Research methods: Process & activity overview

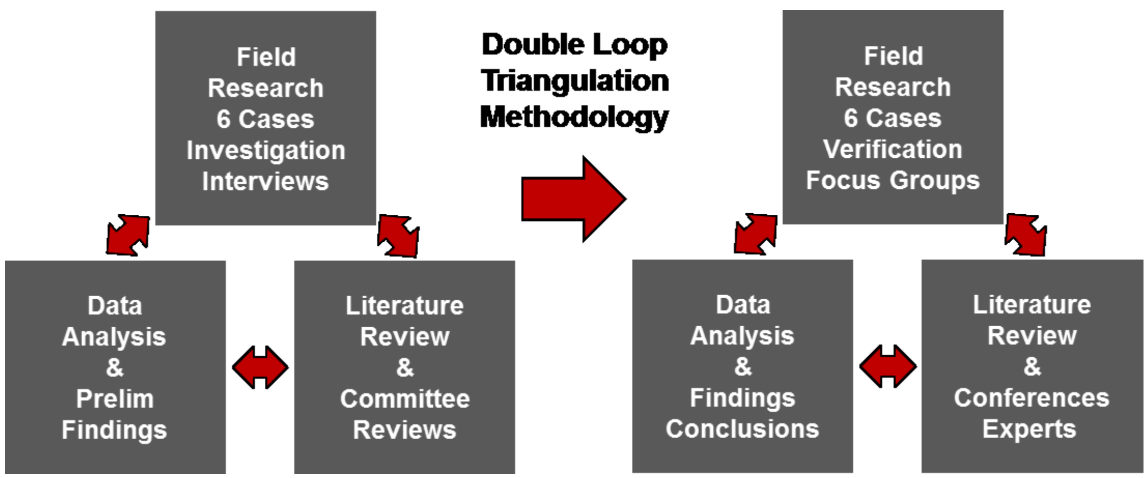
Step	Activity	Reason
Research focus **1**	• Pre-understanding interviews • Initial literature review • Definition of research questions	• Focuses the research efforts • Verifies relevance and research gaps • Enables planning
Case selection **2A**	• Theoretical, not random sampling • Accessibility and willingness to share	• Guarantees variation and sharpens external validity • Focuses efforts on theoretically useful cases
Case preparation **2B**	• Multiple data collection methods: primary and secondary data; interviews and focus groups • Qualitative data collected	• Strengthens grounding of theory by triangulation of evidence • Synergistic view of evidence • Fosters divergent perspectives and strengthens grounding
Data collection **3A**	• Overlapping data collection and analysis, and field notes • Flexible and opportunistic data collection methods	• Speeds analyses and reveals helpful adjustments to data collection • Allows investigators to take advantage of emergent themes
Data analysis **3B**	• Within-case displays • Cross-case pattern search using divergent techniques	• Gains familiarity with data and preliminary theory generation • Forces to look beyond initial impressions and see evidence through multiple lenses
Shaping hypotheses **4A**	• Iterations towards findings • Replication, not sampling, logic across-cases • Search evidence for 'why' behind relationships	• Sharpens definitions, validity and measurability • Confirms, extends and sharpens theory • Builds internal validity
Enfolding literature **4B**	• Comparison with 'conflicting' literature • Comparison with 'confirming' literature	• Builds, internal validity & raises theoretical level • Sharpens generalizability
Reaching closure **5**	• Theoretical saturation when possible • Formulate the final findings and determine impact	• Ends process when marginal improvement becomes small

Adapted from Eisenhardt, K. M. (1989). "*Building theories from case study research*". Academy of Management Review and with the following sources: (Eisenhardt 1989b; Eisenhardt and Graebner 2007; Gummesson 2000; Gummesson 2006; Yin 2003).

Research validity and reliability criteria

The aim was to combine relevance and rigour for this research project. Several quality criteria have been closely monitored. First, the research had adequate access to a large diverse knowledgeable pool of managers willing to share thoughts, experience and secondary relevant data. This guaranteed a good credibility of the research outcome. Second, the report has been structured in such a way so that readers should be able to follow the research process and draw their own conclusions. Third, a constant concern during the study, was the generality through appropriate case selection and extensive cross-case analysis and the validity of the research through a strict research path process and triangulation by data source (managers with different biases, from different functional department, several times interviewed, from different places); by method (interviews, focus groups). Fourth, the research was driven to make a contribution.

Figure 6: Double loop triangulation methodology



Moreover, the case studies have been carried out into close interaction with managers that were familiar with radical innovations experiences and situations. The case study approach therefore represented a methodology that was ideally suited to creating managerially relevant knowledge (Diaz Andrade 2009; Eisenhardt and Graebner 2007; Govindarajan and Trimble 2010; Gummesson 2000; O'Connor et al. 2008b). However without rigour, relevance in management research cannot be claimed. Four major criteria that relate to the rigour of field research that have been considered were: internal validity, construct validity, external validity and reliability (Gibbert et al. 2008). First, internal validity, also called logical validity, refers to the relationships between findings. The study provides a logical reasoning to defend the research conclusions. Internal validity refers to the data analysis phase. Basically three activities enhance the internal validity of this study. First, a clear research framework has been established. Second, pattern matching compare observed patterns in different contexts. Third, triangulation was an enabler to verify findings by adopting multiple perspectives. Figure 6 gives an overview of the double loop triangulation process that has been implemented. During the first phase the focus was investigation, while during the second phase the emphasis was on verifying or validating the preliminary findings. Second, construct validity or the quality of the operationalization during the data collection phase. Essentially, construct validity relates to the extent a research project investigates what it claims to investigate. To guarantee the construct validity, the research established a clear chain of evidence to allow readers to reconstruct the research path and triangulate or adopt different angles to view phenomena by using different data collection strategies and data sources. Third, external validity or generalizability indicates if the setting is valid in other settings. Eisenhardt argues that case studies can be a starting point for theory development and suggests that a cross-case analysis involving four to ten case studies may provide a good basis for generalization. For the case study selection and the level of detail of the case context, recommendations of case domain experts have been followed through the project (Easton 2010; Eisenhardt 1989b; Eisenhardt and Graebner 2007; Gummesson 2000; Yin 2003). Fourth, reliability refers to the absence of random error, enabling subsequent researchers to arrive at the same insides if they conduct the study along the same steps again. Here, concerns are transparency and replication. Transparency has been guaranteed and enhanced by careful documentation. Replication was guaranteed by describing extensively the cases and quotes (Gibbert et al. 2008).

Finally, the conclusions will be formulated in the next and last section of this research methodologies and methods chapter.

Conclusions

This chapter has covered the research methodology and methods. It started by describing and discussing the philosophical research assumptions and the selection of critical realism as thought framework. Next, the research methodology and methods have been extensively addressed. Case study approaches for generating and testing theory have provided the strategic management field with ground-breaking insights (Eisenhardt 1989b; Eisenhardt and Graebner 2007). The case studies and the focus group sessions in this research project have been carried out in close interaction with practitioners. As such, the research process was ideally suited for creating managerially relevant knowledge (Gummesson 2000). However, relevance and rigour had to be combined simultaneously (Gibbert et al. 2008). Case studies were the appropriate choice, due to the multidimensional character of radical innovation projects and because the dynamic and complex phenomena, which required in-depth discussions and necessitated consideration of data over several years, not just snapshots. Finally, validity and reliability criteria have been discussed.

The research methodology and methods has been fully aligned with the research purpose, context, objectives and questions. To summarise:

1. Longitudinal, comparative 6 cases analysis conducted over 3 years.
2. For exploration of complex phenomena, field research is the better methodology.
3. Investigation, verification interviews and focus group sessions with managers.
4. Been able to apply theoretical case sampling approach.
5. Double loop triangulation methodology.
6. Extensive proprietary and public data analysis.
7. More than 100 managers involved.
8. Different industries, different companies and different functional managers.
9. Research with rigour executed and with relevant outcome.
10. Metrics: internal, construct and external validity and reliability.

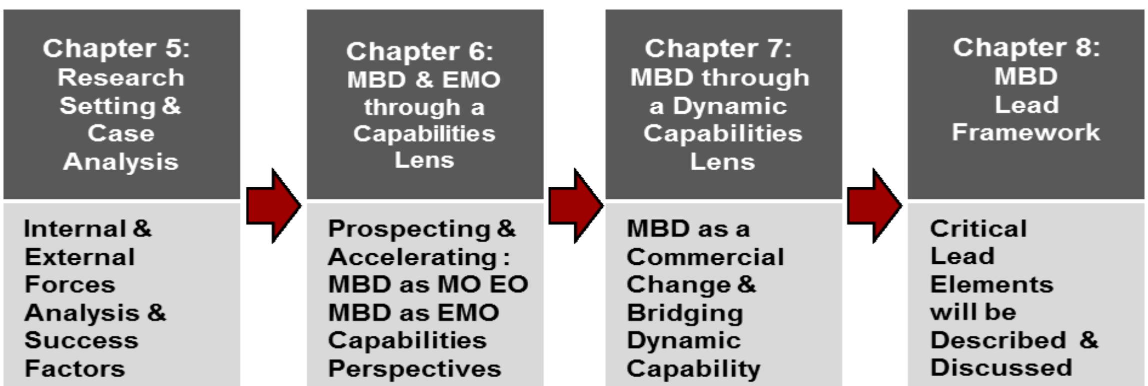
In the next chapter the research setting will be described and the data of the cases and of the focus group sessions will be analysed and discussed.

CHAPTER 5: RESEARCH SETTING & CASE ANALYSIS

Introduction

In this chapter, after the research settings have been covered, the different case studies will be described and analysed. Initially, from a within-case perspective and subsequently, from an across-case perspective, our extensive case material will be analysed. Primary and secondary data and data from the interviews and focus group sessions will be considered. Furthermore, the next chapters will capitalise on the analysis of the cases in chapter 5. In chapter 6, the early commercialisation or early time-into-market area will be unbundled in a 'prospecting' and an 'accelerating' phase.

Figure 7: Research process: Analysis, findings and discussion



For those phases, internal and external forces will be investigated and key success factors identified. Finally, MBD as an EMO capability will be proposed and motivated. In chapter 7, MBD viewed through a dynamic capabilities lens, will be covered. The most dominant MBD dynamic capabilities will be identified, described and discussed. In chapter 8, a MBD lead framework with lead mix elements, will be introduced and discussed. This MBD "lead compass" could be a valuable tool, for helping organisations navigate during their radical innovation adventures.

First, the research setting will be described and an initial analysis of the cases and findings will be tackled in the following paragraph.

Research setting

The cases had to be situated at the early commercialisation phase, with managers willing to share data and allocate time. Several industries were covered and different functional departments have been involved during the assessment. The definition of RCVs, is based on (Leifer et al. 2000) and (Block and MacMillan 1995).

As described in chapter 5, during three years, six cases have been extensively studied, empirically, holistically and in a longitudinal way. Overall, including the various verification meetings, more than one hundred managers have been involved. In the first phase, the six cases have been investigated in great detail. In the second phase, the preliminary findings have been confronted with managers from the six cases and with managers from other companies and different industries through interviews and focus group sessions. The goal of this triangulation process was to guarantee and increase the generality of the research findings.

The selected cases had to be radical corporate innovation projects called: radical corporate ventures (RCV), having reached or having faced the early commercialisation phase and having their roots in knowledge/or technology intensive, industrial (B2B) established and multinational companies based in Flanders. Primarily, the RCV had to pass the newness tests and the radicalness tests: new offerings for the company with significant gain benefits and/or pain reducers and/or addressing new markets (Leifer et al. 2000). The specific definition of RCV, used for this study, is an adaptation from Block and MacMillan (1995) covering the following key characteristics: (1) Renewal: Focus is on strategic renewal and/or new profitable growth opportunities outside the existing product/market and existing customer base. (2) Relatedness: Involves an activity new to the organisation which can be product/technology or/and business or

market related but close to the core business. (3) Radical: the offering should be drastically different and be new to the market or/and new to the organisation (Leifer et al. 2000). (4) Risks and uncertainty: Involves significant higher risks of failure than the organisation's base business and is characterised by a high uncertainty. (5) Resources: Is conducted primarily internally with a high degree of autonomy while leveraging internal resources and involving external complementary partners (Block and MacMillan 1995).
According to Gummesson (2000), the researcher's number one challenge is access to reality. "*Access refers to opportunities available to find empirical data and information. Even if the methods of collecting and processing data are sophisticated, the well-known adage "garbage in, garbage out" cannot be discounted*" (p. 14) (Gummesson 2000).
Gummesson (2000) introduces the concept of pre-understanding, which refers to insights into a specific problem before the start of the research project; while understanding refers to insights gained during the research project (Gummesson 2000). During a pre-understanding phase, I had several conversations with consultants, managers and executives from corporations in order to understand the corporate venturing activities in Flanders. This knowledge enabled me to identify compelling corporate venture cases and get access to empirical data. Initially, a phone interview was conducted, explaining the scope, objectives and motivation of the research. During that call, the radicalness of the initiative was verified but also accessibility for interviews and willingness to share insights was verified. I asked them if they agreed to meet regularly for the next three years and committed to inform them during those sessions, about the progress of the research project. Furthermore, I asked them who in their organisation could be interviewed and which other executives in other companies active with corporate venturing they could recommend to involve in the research project. The six cases were selected because they fulfilled the criteria as described above as a RCV. Moreover, they guaranteed access to management, a willingness to share and to spend time. At the start, one case was already very successful (RiskCo) and another one was a failure (CoreCo), the other four had just entered the market. Starting point was identifying representative cases, identifying and convincing accessible business leaders, who were willing to spend time and to share experiences. An excellent way to capture insights was to engage in dialogues through face-to-face contacts. Numerous interviews and discussion sessions

have been conducted, following the theoretical sampling approach, until a saturation of the data was noticed (Creswell 2007).Furthermore, theoretical sampling was applied, which means that cases were selected because they were particularly suitable for identifying relationships and logic among phenomena (Eisenhardt 1989a; Eisenhardt and Graebner 2007).

In this chapter, we explore the within-case analysis. To represent different aspects of reality, theoretical sampling was applied, which was implemented as an on-going sampling process in which simultaneously data was collected, coded, and analysed. Along this journey, what had to be collected in a next step and where it could be found, was adjusted over time. Studying several cases was helpful, in both generating explanations, verifying statements and insights systematically. In a real sense, they were excellent resources, for advancing theories about the way the world works. It was crucial to understand the dynamics of each particular case, before proceeding to cross-case explanations. Without that, superficiality would have set in.

The literature review identified several definitions for organizational capabilities. For this research project, a practical definition has been used, which had been applied in several disruptive innovation research projects (Christensen 1997; Christensen and Overdorf 2000; Christensen and Raynor 2003). According to these authors, what a company is capable of doing, depends on three factors: resources, processes and values: First, resources (1) include tangible items and less tangible elements. Tangible resources (1a) are usually people, cash, equipment or things; they can be hired and fired, bought and sold, depreciated or built. Most tangible resources are visible and often measurable. On the contrary, intangible resources (1b) like relationships with customers and partners, are more difficult to express in a value, they take time to develop and are less visible to competition. Knowledge is another intangible component and can be implicit or explicit. Furthermore, competences include individual skills and expertise (Ulrich and Smallwood 2004). Core competencies provide value to a variety of markets and have leverage potential (Prahalad and Hamel 1990). Second, processes (2) are patterns of interaction - decision-making and coordination mechanisms - that employees use to transform resources into products and services of greater worth. Most organisations have explicitly defined, formal and informal processes. Some processes are formal in the sense that they are explicitly defined, visibly documented, and consciously followed. Other processes are informal in that they are habitual routines or ways of working that have evolved over time. They are established to help employees perform the current tasks in a consistent way, time after time. Third, organizational values (3) are defined as the criteria by which the organisation prioritises decisions and is authentic.

Basically, the following questions have been used during the field research and the focus group sessions to discuss MBD capabilities:

1. What are you really great at doing? … Processes (P).
2. What do you have that makes you unique? … Resources (R).
3. What unique values and attitudes make you going? … Values (V).
4. How do you synchronize the PRV mix together? … Synchronizing (S).
5. How do you dynamically re-adjust? … Transforming (T).

In the next sections, the different cases will be described.

Case Analysis: RiskCo.

RiskCo is a RCV of a large established financial and insurance group. For most industrial companies, inter-company credit represents a major risk. In fact, more than one business concern closure out of five is the result of the payment default of one or more of its clients. The current economic crisis fuelled even more uncertainty and volatile behaviour of market players. Many credit managers like an insurance that protects their balance sheet against non-payment without however having to accept interference in their customer relations when it comes to recovering unpaid debts.

RiskCo developed an original vision of risk protection, relying on the insured's self-management, who himself determines the parameters of his insurance policy. The RCV was able to put together a team with a highly-specialized expertise in credit insurance, supported by sophisticated algorithms and a customized ICT applications. However, bridging the market entry towards profitable growth required major interventions and important leadership changes had to be implemented. RiskCo had a great insight and foresight at identifying market opportunities, ignored by the large banking and insurance companies. Not only did RiskCo see the attractive opportunities, they were also able at acting and developing a customized, beneficial and compelling solution, that took a lot of pain away from their customers. They were able to co-create customized solutions, depending on the risk acceptance of their customers. They were also able to effectively work together with strong brokers or distributors. They were intimate with their industrial customers, co-creating the solution of choice. RiskCo came very well prepared to the market. They were driven by an ambitious vision, an aggressive strategic intent and a strong entrepreneurial CEO was driving the organisation forward. One manager explained about the early days: *"The CEO was a dictator and did not accept no or a challenge for an answer. He was very driving. He was able to sell anyone his ideas and plans"*. RiskCo applied offensive marketing and sales techniques, creating awareness and a strong brand image for specialised solutions and services. The first year in the market, they tested and proved their value concept to a limited number of industrial clients. They convinced well-known companies to publically express their satisfaction of the RiskCo offerings. A statement of the initial CEO was *"Succéder ne signifie pas imiter, mais porter le flambeau plus haut, plus vite et parfois autrement"*. This means in English: succeeding is not imitating, but being ambitious, to stretch, move faster and sometimes doing things differently. RiskCo realised that the first customers were not willing to delegate risky and sensitive financial services to an unknown starting and small organisation. During the prospecting phase, aggressive brand creation efforts towards their potential customers were used to get their message through. State of the art brochures and a professional website were part of the key marketing efforts. Those efforts added a lot of credibility, in a market where trust was a major critical success factor. A manager explained their thinking during the early time-into-market: "*We needed to be perceived from the beginning as a 'big company', as we targeted customers that were large industrial companies and that had to trust a new organisation"*. Commercial initiatives included large events and conferences. RiskCo was addressing the market opportunities very offensively, while their larger competitors were defensive. Several experts from their competitors were attracted to join and they brought with them customer contacts. RiskCo's strategy worked, they were able to prove the value of their solutions and got their first orders.

However, the entrepreneurial CEO, as he saw his vision been accepted by early adopters, lost interest. The company continued spending heavily on market creation activities, but profitability was far below the expected targets. After hesitation of the board of directors, they removed the CEO and replaced him by a business focused CEO, who had to move the organisation towards profitable growth. In this second phase, the new leader immediately enhanced the alignment between customers and the sales force. He emphasised the robust analytics and algorithms as an expert system and pushed for fast decision making. Solutions were further co-created with customers. The new CEO was able to mobilize the organisation towards new horizons. The European market was addressed with a renewed energy and with a focus on the bottom line.

Ultimately, RiskCo was able to cross the 'valley of trouble' and accelerate the business. Proof that RiskCo was fully in line with the expectations of the market, was demonstrated by the RCV's growth and its rapid expansion in Europe. In fact, they realised a double digit turnover and a geographic expansion, covering all major European countries.

Case Analysis: WoodCo.

WoodCo is a chemical manufacturer of biomass based products. WoodCo uses mainly their chemicals as binder to produce moulds for metal casting. In search of a new strategic direction and differentiation, WoodCo spearheaded a European commission funded and technology driven research project. As an outcome, a wood modification chemical product and a process for improving the durability, dimensional stability and surface hardness of solid wood was developed. Cheap soft wood could be upgraded into new durable wood, having the attractive look and product characteristics of tropical hardwood. Moreover, conventional equipment to treat the wood could be used. This high quality alternative to the wood market came at a moment when the timber industry faced considerable problems to source tropical hardwoods. But, the timber industry was extremely conservative and earlier attempts of chemical companies with less performing products, had failed in the past, except some special applications in Scandinavia.

However, WoodCo has been committed, determined and leveraged extensively complementary capabilities of several strategic partners. They have been progressing and addressing market after market. David (referring to WoodCo as being a small company) appeared to be able to beat and show large Goliaths, a radical innovation success formula. They moved very meticulously step by step, market by market, gained among others, excellent credibility and visibility and were selected for innovation awards in several markets. During the prospecting phase they had been working under the radar of large chemical corporations. Protected by strong intellectual property rights (IPR), they took their time to test and prove their solution was reliable, robust, competitive and sustainable. The prospecting phase took several years with trials and small errors. They were business disciplined or in other words, they insisted and expected co-investment of their partners to demonstrate their commitment. They crossed the valley towards profitable growth while at the same time they became active in different countries. Basically, WoodCo was initially a technological driven project. One manager stated: *"In the beginning it was not obvious to find first users because we were dealing with a very conservative market."* Another one added: *"We realised that customer support and satisfaction was critical. Being correct with your promises is very critical. Over commitment has to be avoided any time"*. However, from the beginning they were present in the market, talking to as many knowledgeable experts as possible. They were convinced and got the confirmation, they had a compelling value proposition.

WoodCo understood very well the critical role of managing and leveraging other partners. They spend a lot of time analysing, verifying and discussing before engaging into a relationship with a partner. The early phase was extremely challenging. An early Scandinavian partner preferred to focus on their own previous generation products and the Belgian market proved to be lagging in adopting new technologies. Through persistence and determination they engaged in a new relationship with a Dutch innovative wood distributor which proved to be an ideal combination. The managing director stated: *"The Dutch firm was initially of interest to us for their testing equipment.*

We discovered the importance of the supply chain. They had also market knowledge, access and the Dutch market was more open and earlier ready". They complemented RiskCo's capabilities with market knowledge, operational wood modification equipment, market access and a reputation as an innovator.

Ultimately after several years of experimentation in different countries and with different go-to-market partners, they moved towards a phase of growth. Concurrently and currently, they are prospecting in new territories, more specifically in the UK, USA and Asia.

Case Analysis: StressCo.

StressCo is a RCV initiative of a chemical company, world leader in specialty plant nutrition. The corporate philosophy was to avoid commodity business and to focus on market based innovation solutions while building on their strong technological know-how. StressCo was driven by the request of a distributor and local customer in the Middle East for reliable specialty plant nutrition, dealing with severe and unique environmental conditions. During an intense multi-year collaboration effort, the RCV initiative was able to align the local first lead customer, distributor, sales representative and engineering and co-create a solution. This new generation anti-stress product line enabled major productivity gains under tough conditions, confronting major temperature fluctuations between day and night. The verification of the reliability of the product took several years of field experimentation and of collaboration among farmer, the distributor and technical teams of StressCo. StressCo was able to solve an extremely difficult problem, that farmers confronted with severe weather conditions, were facing in order to grow their vegetables. After a lead customer had been fully convinced of the unique performance and reliability of StressCo's products, StressCo moved ahead in other areas of the world. The processes to test and prove, that their components were reliable, had taken them more than three years. Afterwards they could move ahead full speed. They continued to work closely together with their market partners, to expand their product portfolio, to address other solutions for other vegetables. They used a step by step approach to expand the product range. They remained very close to their distributors and remained close to the farmers. StressCo moved rather slowly to commercialise, but they did not want to make mistakes. Part of their vision and mission statement, was innovation driven, performance centric and global growth oriented. Furthermore, the organisation was very much business and results driven.

Basically, StressCo focused their initial commercial attention on one committed innovative lead distributor and a committed farmer. Their sales representative pushed them for several years ahead. The lead farmer saw the need for a breakthrough solution, to increase significantly the output of his vegetables in extreme environmental conditions. StressCo was extremely focused and initially, put all their eggs in the same basket. They moved rather slowly, because they needed the time-to-test and the time-to-prove and because they were considering their technology strengths as difficult to be matched by competition, which appeared to be correct. After the success with other early adopters, they moved high speed towards other areas in the world, confronted with similar severe weather conditions. In the second phase, they also expanded their product range with other versions and modified formulations for different vegetables.

Case Analysis: SmartCo.

SmartCo is a RCV of an ICT supplier, targets the utility sector, for them a new market sector, with a next generation service platform. This new system gives real-time information to both consumers and utility providers, concerning energy costs and usage. It provides not only data gathering but gives also the possibility to monitor millions of electricity meters. SmartCo is part of the smart grid initiative. Even though the advantages are substantial, several major challenges are to be addressed. The utility sector is historically very conservative but the voice for change of policy makers, regulators and public opinion cannot be ignored. With SmartCo an unknown sector is entered, with low credibility and hardly access to key decision makers. SmartCo has to integrate with other complex subsystems, requiring intense tailoring. Strategic and tactical partnering represents an opportunity for technical and commercial advantage.

The venture has been able to demonstrate progressively modest commercial successes across the world. However, in an economy in crisis, orders get delayed, and new executives are questioning the strategic direction towards utilities. SmartCo had been attracted to the smart grid opportunities. The utility sector was a new segment for them without an established commercial access. Initially the smart grid was rather hype across the world. SmartCo was unable to select and focus on a number of utilities. On the contrary, they were trying to prove their solutions to too many utilities, all at once. Engineering was working in overdrive, but without a lot of success. In addition, they were part of an infrastructure, which needed several suppliers to cooperate and interoperate. They appeared to be very reluctant and slow to effectively establish collaborations. Moreover, the initial technical trials were hardly paid for and driven by technological departments and small budgets. Especially for SmartCo, in a new sector, they could have benefited from teaming up with credible complementary partners. The RCV appeared to be lacking influence with pushing the commercial forces. Decision making appeared to be slow, frequent changes of executive leadership and new organizational directions were barriers for growth. SmartCo was addressing a very conservative market, coming from a competitive dynamic market. Initially they were attracted by the hype of the smart grid initiatives, promising fortune and glory. Another drive was the search for new opportunities outside the core of their business. They struggled to identify the trendsetting utilities that were really committed to invest. Asked what he could have done differently, if he could go back in time, the answer of a SmartCo manager was: "*I would definitely select and develop much faster strategic partnerships and be much more decisive*". Due to the high complexity, the smart grid initiative remained for many years in the prospecting phase. It took off slowly, when the technical discussions were replaced by business discussions. A comment from a manager was: "*Our offering is situated at the intersection of two sectors: Telecom and Utilities. Those two sectors are like opposites: trendsetters versus conservatives".* SmartCo struggled and was frustrated with the fact that they had no strong brand image in the utility sector. Relationships had to be developed and that was a long effort at different levels. Building relationships takes time and requires interventions at different functional departments. During an interview a manager admitted: "*We speak very well* *the technical language and connect well with the technical departments but we need more time with business departments".*

Case Analysis: BioCo.

BioCo is a RCV of a specialty chemical company, delivering innovative nutritional additives and solutions for feed, food, and pet food applications. BioCo addresses the opportunities for Bio-stable, an additive to protect the quality of biodiesel. Without the application of an additive, there is a clear risk for biodiesel quality issues that could have severe consequences for the car engine. Bio-stable outperforms competitor stabilizers through its unique and patented solution. The petrochemical companies are aware of the critical biodiesel challenges and prefer trusted suppliers. As BioCo had no sales channel, no brand and no credibility in the petrochemical industry they searched, selected, established and leveraged a strategic collaboration with a complementary fuel additive supplier. The co-commercialisation reduced risks for all stakeholders. However, the RCV leadership was moved to another division and ultimately the organisation lost traction with the initiative. BioCo was a technological driven innovation project able to identify a new opportunity in a new sector. The biodiesel market, at first, was promoted by most governments as a promising market. BioCo was initially able with a go-to-market partner to prove a concept and serve lead customers. It was an initiative outside the core of the company. As the mentor and sponsor of the project were facing major growth in their core business, the decision was made to transfer the leadership of the RCV to another division. The BioCo project was technological driven, but the strong competitive advantage and the aspiration to grow beyond the core business moved the project ahead. The lack of any market access and reputation in the petrochemical sector was addressed by working together with a strong complementary partner. Their product was by far superior to any other competitive offer and they were able to demonstrate value to emerging customers. The market was initially fuelled by governmental incentives and regulations. Initially this project appeared to be very attractive. However governments did not confirm their support as a lead market. However after internal debate, BioCo was moved to another division in the USA which broke the momentum of this initiative. The early successes were not repeated.

Case Analysis: CoreCo.

CoreCo is a RCV of an ICT supplier and has been established to develop a next generation core router. Core routers are to be located at the core of service provider networks and intelligently select the best path for forwarding voice, data and multimedia packets. In the past, the company had lost the war with enterprise data routers, while remaining market leader with voice switches for service providers. The stretched ambition was to address the emerging high end service provider core router market, requiring high speed connections and high reliability and performance. “Leapfrog the competition” was the mantra. Resources were not an issue. CoreCo got the blessing and support from senior executives and was coached by a strategy consulting firm. Lead users had been identified and several supplier partnerships been agreed. Unfortunately, the high end core router market window closed as service providers redirected their investments and focused their attention at the edge of the network. The forecasts went drastically down, supplier partners’ interest weakened, and some walked away. Ultimately, the European based RCV was divested. A USA based start-up, offering state of the art edge routers, was bought, given leadership and autonomy as the new RCV. What happened? CoreCo had been offering a robust high-end giant ‘all in one’ core router. However, they miss-interpreted the market, as they were too far moved from it and were lacking direct connections to the right lead users. During the prospecting phase, they had lost credibility with some lead users and lead customers because they remained focused on the high-end router market. CoreCo became a large RCV and adopted too many bureaucratic managerial approaches, resulting in slow decision making. At the same time, new start-ups came to the market, with a new generation smaller scaled routers. CoreCo lost interest of lead customers. Too many newness factors at the same time had slowed down the development process. Conversations had been focused on existing large customers. They were too far moved from the market to notice the market was drifting towards the edge of the network. As one manager noticed: *"In a severe battle there is no time for learning, but you need the fastest execution"*.

While CoreCo was struggling to move ahead, one of their major competitors, named CoreB, succeeded. CoreB had been a new start-up of serial entrepreneurs, who knew the market. They kept a very close link with the trendsetting customers. They kept a laser focus on specialized market segments that most suppliers under-served. The CEO of CoreCo mentioned when asked to expand on their approach: "*Focus was our success factor, not magic"*. And he continued saying: "*Our low profile was aimed until we actually had something to show*. *Network operators gain no value from promises. Promises do not move packets*". CoreB remained a streamlined organisation, outsourcing manufacturing for faster 'time-to-market', faster ramping up of production volume and lower total product costs. They focused on leveraging a strong operating system, allowing users to test complex service changes before applying them to a real life environment. Furthermore, CoreB involved very actively early users during their commercialisation processes. For the go-to-market they used a highly specialized sales force, complemented with specialized value added resellers and distributors. In addition, they guaranteed a world class customer services portfolio. In other words, they proved that they were able to understand the market and technology prerequisites in order to succeed. But also, looking towards the future, they were able to attract industry talent.

Focus Groups: Analysis

ATR is one of the world's leading suppliers of plastic films, nonwovens and laminates for the personal care market segments. ATR is committed to provide innovative solutions. Some of the world's largest companies and strongest brand names count on the unique advantages of teaming with ATR: manufacturing excellence, process and product innovation, customer insight, and global product capability. For a global ATR product division, an interactive focus group session with 14 participating managers from different functional departments and located in different locations in Europe, was conducted. The studied ATR product division was strongly technology, engineering and manufacturing driven. They had moved recently towards empowering more and expecting more leadership from their product and marketing managers.

The focus group session approach: Initially, two groups had been formed with cross-functional representation, to discuss without detailed guidelines and with limited interventions, with the aim to identify the most critical MBD capabilities. Both groups struggled. A lot of debate was the result, without being able to report clear insights. Then, I gave a short introduction session on MBD capabilities and introduced them to the preliminary findings of the first research case phase. Now, both groups were re-energized and determined in one hour and thirty minutes, the most critical dominant MBD capabilities. Next, the two groups merged and the results of both groups was discussed and conclusions drawn. Several managers admitted: "*Indeed, we are not familiar with capabilities. In the beginning we thought it to be a theoretical exercise, but you showed us the high value of it*". Feedback from sales representatives was clear: *"Involve us much more and much earlier in the planning process. Together we need to identify the right lead customers and markets and target the right opportunities*". Furthermore, as time went on, the conversations converged more and more. The need to collaborate better internally and externally was stated as a key success factor. But also the prerequisite to make much faster decisions and move much faster ahead during commercialisation appeared to be critical. One manager suggested: *"What we just all have been saying is that scaling the products is really powerful. Scaling enables us to reduce uncertainty and risks and to increase the go-to-market speed and pace and prove our innovative products are adopted".* At the end of the focus group session, they expressed their satisfaction. On the one hand they smiled, because they had discovered, identified and discussed as a team their most critical MBD capabilities during early commercialisation. On the other hand, they were concerned, that they had so many challenges to tackle and they had to improve several MBD capabilities. Interestingly, they committed to continue the exercise and they agreed on an action plan.

ABX is a global leader in power and automation technologies that enable industrial customers to improve their performance, while lowering environmental impact. ABX strives to balance economic, environmental and social objectives. Technology plays a key role for ABX. They have activities all over the world, working to develop unique technologies that make their customers more competitive, while minimizing environmental impact. ABX operates in more than 100 countries and supports global and local customers. For ABX Middle East, two focus group sessions, one with 15 and one with 16 participating senior marketing, product and sales managers were conducted.

Basically, the same focus group methodology with ABX was followed as with ATR, except that the initial brainstorming sessions was skipped, which had appeared to be time consuming and with limited direct outcome. Three groups discussed separately the dominant MBD capabilities. Surprisingly, the 3 groups came up with very similar conclusions. Those were basically: Being able to see and act with determination on the right opportunities; closely working together and intensely dialoguing with different decision makers and speed of decision making, were perceived as very important criteria. Most ABX managers agreed: *"Our global reach, local presence and very broad portfolio of customers and products, services and solutions are major strengths. We can spot easily new opportunities and our business culture allows us to move ahead".* However, all 3 groups had identified as most important success factor and most important factor for them to improve: speed of decision making. Comments were made like: *"Our broad portfolio is great but selling solutions takes time, involves many internal departments, too many managers. We need leaders who can channel the sales process effectively and quickly. We need leaders inside our organisation who team up with leaders inside the customer".* Moreover, all were convinced that networking and leveraging relationships was critical and the link was made to the need to cooperate, collaborate, and co-create. A statement of a manager was: *"It is all about relationships. You need to know from the beginning who you need to target. Remember, with radical innovations most of the time you are addressing unknown territory. Know your relationship network*". The discussions indicated that without relationships the best offering does not sell. However, equally important in industrial markets, is the requirement to succeed first with trials, before customers consider continuing and placing repeat orders. Different members of the decision making units have different interest. Those differences have to be recognised and to be addressed. An interesting comment was: "*If we leave engineers at the negotiation table alone, they will continue to*

find something to add to the specs; and the testing goes on and on. Sales are needed from the beginning in the process and they have to make sure the orders get closed".
Furthermore, it was mentioned that lead markets really matter, because they were supported by a favourite governmental support which can make a difference and stimulate take-off. ABX was highly technology and radical innovation oriented and used governmental strategic priorities to spearhead its own radical innovation initiatives. The lead markets were 'top down' determined and trendsetting customers were 'bottom up' determined, while moving ahead with a discipline to focus on the 'bottom line'.

AMX, a global leading provider of world-class medical devices and therapies. AMX is innovation driven and keeps developing new devices and therapies, to restore bodily functions and to enable people to regain control of their lives. Therapies are often inspired by urologists and gynaecologists, who choose AMX as their solutions partner.
With four marketing managers of the AMX EMEA marketing team, a focus group session was conducted in their European headquarters based in the Netherlands. The discussions were initially very difficult. The term capability was not familiar to them and was perceived as theoretical. Therefore, the MBD capabilities and dynamic capabilities domain was explained, covering what, who, why, when and how. The discussion indicated, they had major differences in their perception, related to the dominant MBD capabilities, which were needed to succeed and they even were more disagreeing about which MBD capabilities they were really mastering. However, these differences led to excellent discussions among them, in order to determine dominant MBD capabilities and disabilities. One manager commented: "*Initially, I was surprised to find out that we were so divergent in our evaluations of our strengths and weaknesses. But our discussions were really useful. We were able to express our differences in opinions and perceptions. It was not easy and with a lot of effort we were finally able to reach consensus on our positions. Very important for me is the outcome. We know on what to focus on and what to improve*". Another manager complemented: "*The discussion opened my eyes when you asked us to explain where we were really great at doing. That is a very powerful question*". Due to the nature of the AMX solutions, which need to go through severe acceptance tests of many local instances, a close collaboration

with all stakeholders is essential. The challenge is to satisfy the different needs of different stakeholders. It was indicated that, being in real touch with the market and sensing on where to focus on, is really important. Being innovative is one thing, but selling is what counts. One manager reinforced: "*We understand the patient, we understand how to deal with this complex web of market participants, but overall stretch sales targets and the execution orientation is what counts*". There was total agreement in the group that being perceived as a leading trusted partner was a prerequisite. As an innovator, your radical solution has to be ahead of competition. However, that is not enough because everyone in the chain has to trust you. A manager said boldly: "*It is all about trust. No trust, no business. We cannot make mistakes, because we basically serve patients and it would take several years to re-establish an acceptable trust level*".

Conclusions

In this chapter, the research settings have been covered. Next, different case studies have been analysed. Afterwards, a within-case perspective was described, analysed and summarised. Primary and secondary data and data from the interviews and focus group sessions have been considered. In the next chapter, MBD and EMO through a capabilities lens will be explored.

CHAPTER 6: MBD & EMO THROUGH A CAPABILITIES LENS

Introduction

This chapter describes, assesses and discusses the findings and consequences related to MBD of RCVs through a capabilities lens. The empirical data originates from in-depth interviews, focus group sessions, conversations with more than 100 managers and from a large amount of primary and secondary data (see chapter 5).

Figure 8: MBD & EMO through a Capabilities Lens

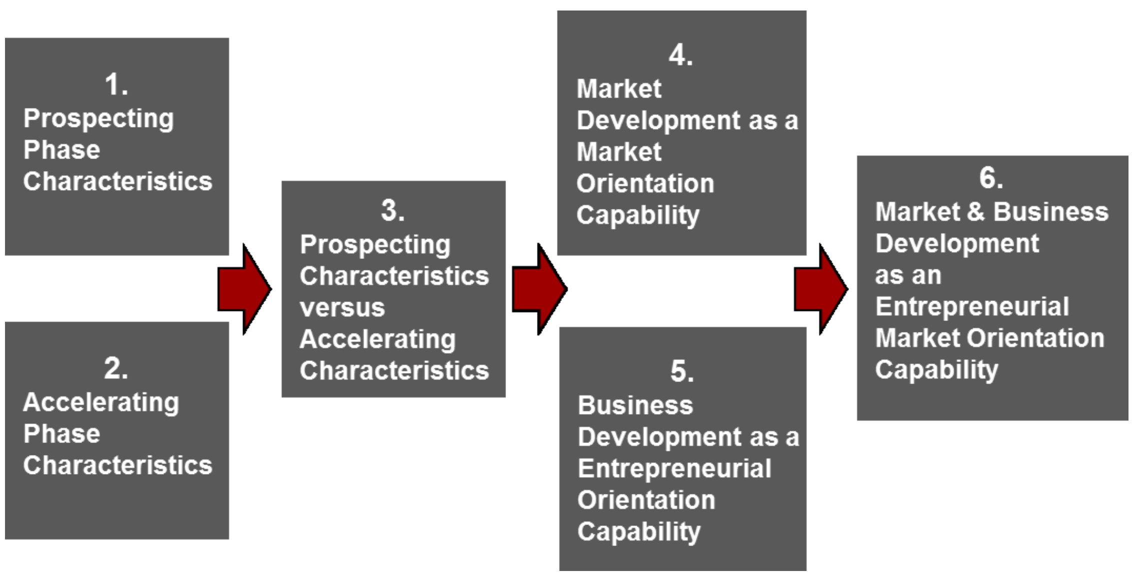


Figure 8 gives an overview of the building blocks of this chapter, the process and the different steps that will be taken. Findings will be discussed in relation to MBD, MO, EO, EMO, RBV and the capabilities literature. First, the early commercialisation area will be unbundled in a prospecting phase (1) and an acceleration phase (2). For both phases, external and internal characteristics will be analysed and key success factors will be identified. The two phases will be further compared and lessons will be identified (3). Next, MD as a MO capability (4) and BD as an EO capability (5) will be assessed, impact and consequences discussed. In the following section, MBD will be linked to an EMO capability for the prospecting and the acceleration phases (6). An explorative EMO capability and an exploitative EMO capability have been identified and will be described and consequences will be discussed.

Prospecting Characteristics: Analysis & Findings

"*Marketers need to understand the entire value chain thoroughly"* (p. 8) (Kumar 2004b).

Prospecting is searching for prospects or prospective lead users, lead customers and lead markets. This is an area of preparing and proving the customer value proposition. The main focus is on testing, selling trials and getting testimonials. The analysis indicates that at the prospecting stage, the external and the internal environment is highly uncertain and competitive behaviour very volatile. However, at the same time, the RCV has to act decisively with a lot of self-confidence and determination. Most customers typically go through a long buying process, along several stages. First, potential buyers gain awareness about the offering and recognise an interest and a need for it. The second stage is consideration, seeking information about consequences and alternatives. Third, customers evaluate, test if the offering is meeting expectations and arrive at preferences. Fourth, they decide from who and how to purchase. Finally, the customers consider if the seller deserves a repeat business (Bonoma 2006; Nunes and Cespedes 2003). However, in reality, selling is even more complex. What makes selling of radical offerings profoundly challenging in B2B, is the fact that several decision making members are involved, each with their own agendas. A RiskCo manager explained: *"It is essential from the beginning to demonstrate you have a competitive and compelling offering and to signal you are not a philanthropic institute, but an organisation that is able to persuade and prove and needs a fair amount of value for the delivered products and services*". Across the cases, interviewed managers mentioned that it is a good practice to 'de-risk' the first generation offering. That means among others:

experimenting together with lead users and using off-the-shelf components. This enables the organisation to move faster forward and to create and shape a future. Rapid learning becomes critical. Exploration refers to a search and trial phase. Trials are important to prove the customer value proposition and to get testimonials. RiskCo was able to hire experienced local sales representatives with a good reputation. According to one manager, a major boost of their visibility and of their credibility came through the willingness of early adopters to be used publically as a trusted reference. The exploration phase may be very brief, as we have noticed with RiskCo, or it may include an extended period of testing and evaluation, as observed in the WoodCo case. Practically, exploratory relationships remain very fragile in the sense that minimal investment and interdependence make it simple to terminate cooperation. Initially "dating" relationships can be developed with lead users and lead customers in order to verify the offering. Visionary customers expect advanced offerings. If this is not the case, the relationship will not have a long life. This happened to CoreCo, when they were unable to keep up with their promises and as a consequence, the lead users and lead suppliers stopped the relationship. Given the siloed architecture of many organisations, product development, marketing and sales often lead a disconnected, even antagonistic coexistence. During the interactive focus group sessions, several sales managers insisted: "*Involve us much more and much earlier in the marketing planning process*". Equally important, and even more often neglected, is the ability to manage the supply chain and the operational processes to ensure that products are where they need to be, when they are needed. As an example, RiskCo had a very lean leadership team, which was able to make decisions quickly. RiskCo out-duelled giant competitors, even rivals with larger sales forces. On the contrary, WoodCo has been active for several years in early market space – protected by IPR – working through the reluctance of a conservative market. With a low market profile, they operated under the radar of potential competitors and giant chemical groups. WoodCo understood very well the critical role of managing and leveraging strong complementarities. They were primarily driven by a vision, very disciplined and had developed a superior technical solution. Initially, their knowledge about the market was limited, but this gap in market knowledge was compensated by exploring directly and indirectly the market, by screening, selecting, teaming up with partners. WoodCo was very strict and a manager commented: "*Be realistic. During the testing and trial days, every lead customer will request something unique. Do not promise what you cannot realise. Stay focused*". RiskCo did it differently and penetrated the early market with a different pace and moved very quickly with a new business model perfectly executed in a big and fast way. From the early beginning they expanded rapidly across Europe. Speed and simplicity of the sales processes was closely monitored. The CEO commented: "*The longer a sales process takes, the more costly it is. Our sales representatives have the tools and the autonomy to make or force decisions quickly"*. StressCo followed another track. They remained motivated and committed during several years with a business focus in the Middle East. Later, they repositioned and slowly but steadily, moved ahead internationally. Unfortunately, SmartCo struggled in a new unknown market sector. They got stuck in frequent internal reorganisations and complex technical discussions. BioCo, initially put their technology driven innovation in the freezer, but with a committed and complementary go-to-market partner, they reconsidered and moved ahead. Repackaging existing technology and not starting from scratch can be beneficial, as a competitor of CoreCo has demonstrated. A new product with "all the bells and whistles" increases the time-to-market. RiskCo offered initially, a narrow product line and services range. In contrast, SmartCo and CoreCo introduced a complex system; by unbundling, they might have been able to reduce time-to-market and risks for the early adopters. Unbundling could have stimulated trendsetters to convert their interest in sales.

Basically, the prospecting phase is an area of preparation and prospection of leads. From the beginning, it is essential to focus and to target trendsetting lead organisations and lead players. In other words, the go-to-market strategies appear to generate more and faster results by being very selective. But as mentioned in several cases and been confirmed during focus group sessions, this focused approach is counterintuitive for most sales driven hunters. During that period the tendering department needs to be adequately resourced in order to respond to requests for information (RFI) and requests for quotation (RFQ) for tests and trials. The aim is to prove the customer, the customer value propositions (CVP) and build trust. In technology intensive environments, it is important to closely monitor or/and actively influence standardization and regulation evolutions. The degree of efforts to actively influence standards appears to be influenced by the strategy, the background of the RCV leader and the culture in the RCV. At the end of this period, the goal is to have realised a number of strong testimonials and make sure experts and opinion leaders know and let other experts know, your RCV has a compelling customer value proposition. WoodCo and StressCo moved slowly through this prospecting area, while RiskCo rushed through this phase, but then lost momentum and could not bridge the migration towards accelerating. In the next section, the external and internal characteristics of that phase and consequences for RCVs will be discussed.

Acceleration Characteristics: Analysis & Findings

"*Nothing ventured, nothing gained*" (p. 18) (Markides 2000).

Many companies are spending time with customers that have no intention of buying (Shapiro and Posner 2006). Acceleration is about realising an accelerated growth and increasing the pace for lead customer acquisition. This is an area of accelerated adoption. The main focus is on repeating, re-ordering and getting recurrent revenue streams. In the acceleration phase, the market environment becomes more stable, less uncertain, while certain competitors hesitate, are frustrated, some even disappear. Several early adopter customers have positively tested the early offerings. The fear, uncertainty and doubt, which characterised the prospecting phase has moved towards a more predictable environment. BioCo, StressCo and WoodCo showed that a critical element and differentiator in a competitive offering, is proprietary knowledge that makes it hard for competitors to provide a comparable service as effectively and as efficiently. To sustain this advantage, the ability to continuously enhance and improve proprietary information of next generation offerings can generate a competitive advantage. However, such a typology of selling or collaborative selling is only appropriate, when there is a willingness and gain from both sides, to take the time, allocate resources and have the trust to effectively collaborate. A WoodCo manager argued: "*Successfully customizing offerings requires a company wide effort to assure that knowledge is shared among all participants. This type of selling is a long process where a lot of interaction is* *needed at different levels*". The time to close a deal is very much dependent on the decision making unit and the buying processes in the customer. Collaborative selling is popular, but as identified during several focus group sessions, requires a number of conditions: "*We need to have an intimate and in-depth understanding of the customer's business and have to make sure we are paid for the incremental investments of offerings*". Moreover most managers agreed that, an effective cooperation among product marketing architects, sales champions and RCV leader and the rest of the organisation could make a difference. In the acceleration phase, the goal is to get repeat business from emerging customers. The organisation has to make sure the order to delivery process is capable of implementing the customer value propositions. "*Keep your promises and plan according to the speed with which you can deliver*" told a WoodCo manager. Expand progressively, market after market, as StressCo has been able to do. However, a SmartCo lesson learned was: Do not stay too long discussing technical details and having only conversations with the R&D departments of your lead users, but focus on specifiers and other key decision makers. The RCV has to make sure enough resources are available for customer support. At this stage, the RCV has to balance its attention to serve initial customers and acquire new customers. Execution is a top priority. One ATR manager spontaneously raised a major concern to his colleagues: "*We are really able to identify the next generation of products but we fail in capturing the extra value through correct pricing*." Winning organisations are able to replicate solutions to other customers. This involves committing resources to a small number of special customers. These customers are trendsetting clients with special requirements.

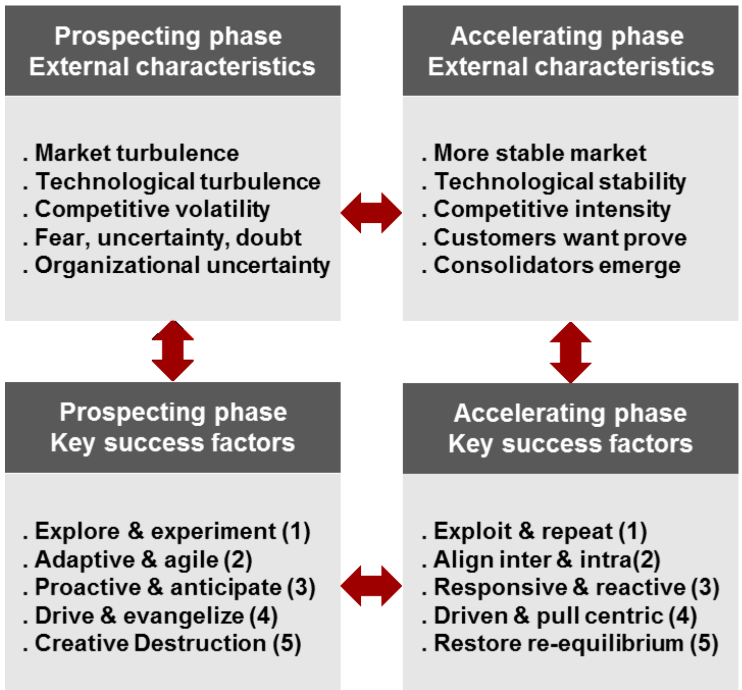
Basically, acceleration is an area where 'trial customers' or 'lead customers' re-order, repurchase, or repeat their buying from the RCV. This will only happen if trust was established in the prospecting phase. However, winning the dominant design battle appears to facilitate the scaling up of the market. The aim during the acceleration phase is to grow the business and get recurring revenue streams from the lead customers and expand their portfolio. Managing speed is critical. Therefore 'simplicity' sales processes and self-confident collaborators can make a difference. At this stage, the order to delivery (OTD) process has to be effective, predictable and reliable. Understanding the market requires a quick market intelligence (QMI) process. In addition, customer satisfaction and loyalty has to be monitored and improvement actions been taken. So far, both phases have been explored and discussed. With this understanding, both phases will be compared in the next section.

Prospecting versus Accelerating: Discussions

"Innovation is vulnerable to the ups and downs of the business cycle and the industry cycle" (p. xvi) (O'Connor et al. 2008b).

In this section, the research findings, described in the previous paragraphs, will further be discussed and related to MBD and RCVs, confirming and/or contradicting literature. Ultimately, new insights and a theoretical framework will be proposed and discussed. The research confirms that the market conditions, the required strategies, tactics and capabilities during the prospecting phase and the acceleration phase are different. Surprisingly, a business-as-usual commercialisation strategy was deployed in most struggling RCVs. Many forces are at play. Concurrently, enabling and challenging internal forces are also at work that has to be understood and dealt with. Essentially, realising that there is a major difference between those two phases and acting upon them is a prerequisite. All organisations have been trying really hard to succeed. Some seem having been trying too hard, trying to do too many things at once, while lacking focus and discipline. Interestingly, major differences across the cases have been observed. Early markets are unpredictable, characterised by high uncertainty. New entrants come and go, and constant experimentation is a way of life. The markets are fluid and volatile places (Markides 2008). In ambiguous environments, the full range of alternatives and outcomes is not known, leading to many possible directions and evolutionary paths. Adoption rates over time for radical offerings frequently follow an "S"-shaped pattern (Rodgers 2003). If prospects are solicited prematurely, conversion rates might be low unless their interest is triggered. Efforts to quicken the pace of lead customer acquisition involve an increased spending on marketing and sales activities. Accelerated growth is likely to yield a better return for organisations with an "instant scalability" or "easiness and readiness" to expand without resource and/or capacity constraints. Most organisations, address commercialisation as a monolithic process. However, this process can better be divided into the distinct stages prospecting and accelerating. Prospecting is an early stage probe and 'proof of concept' (POC) phase (Bonabeau et al. 2008). Experimentation is essential and requires a balancing act that combines opportunism with disciplined planning (Garvin 2004b; Govindarajan and Trimble 2005b; Govindarajan and Trimble 2005c). Small scale, yet rigorous experiments acting on feedback capturing ideas for a next release, are needed (Davenport 2009). A hands-on involvement and follow-through is essential (Charan 2009). The early mover suppliers are enthusiasts, targeting trendsetting enthusiasts. Both are willing to bet on speculative projects that produce new offerings beyond the frontier of current knowledge (Govindarajan and Trimble 2010). These pioneers tend to have capabilities rooted in a deep knowledge of the offering. They are flexible and adaptable and can respond to developments in the market quickly and effectively. They also have cultures that are open to outside influences and are willing to accept mistakes. They are typically quick hit entrants and their competitive advantage arises from their agility and ability to hit the targets accurately (Kumar 2004b). Markides (2008) confirms that pioneers have cultures that promote experimentation and risk-taking, have decentralized structures, limited hierarchy, internal processes that are directed toward doing, planning processes that are flexible and adaptable, incentives that are rewarding. They do not punish failures and have people eager to bet on 'the new next thing'. They push the frontiers, are entrepreneurial task oriented teams who try out experiments without worrying about deficiencies or profits (Markides 2008). Early entry can be crucial to the successful adoption of a new technology. This is especially true when the technology benefits from increasing returns to adoption. However, entry timing is a function of many factors, including the certainty of customer preferences, the new technology's margin of improvement over the incumbent technology, the pain-gain balance, availability of enabling technologies, availability of complementary products, threat of competitive entry, likelihood that the industry will experience increasing returns to adoption, firms' ability to suffer losses, availability of resources to accelerate customer adoption of the product and ability of the firm's reputation to decrease customer, supplier and distributor uncertainty (Govindarajan and Trimble 2010; Govindarajan and Trimble 2005c; Kumar 2004b; Markides 2008; Mohr et al. 2005b; Moore 1999; Slater and Mohr 2006; Tellis and Golder 1996). Frequently, identified benefits for early movers cover a broad spectrum, but are all conditional on other factors. First, brand loyalty and technological leadership can result from an effective time-into-market approach. Customers may perceive the first mover to enter a new technological domain, to be the product leader. This reputation for technological leadership can enhance a company's ability to shape customer expectations and can be sustained if the technology is difficult to imitate or is protected by patents. Second, pre-emption of scarce resources by the first mover can prevent later entrants from being able to attract experts and can make the development of relationships with suppliers more difficult (Tellis and Golder 1996). Third, exploiting buyer switching costs can enable early movers to keep their customers, even if a later entrant offers a better value proposition (Anderson and Narus 1998; Anderson et al. 2006). These switching costs include the cost of the product and the costs associated with learning how to use the product. So, being first to market can be a competitive distinction but several other "firsts" can be considered. Moreover, a delicate commercial decision is agreeing upon who in the decision making units (DMU) is to be contacted. Indeed, in industrial settings selling requires addressing DMUs in the right way. In the next chapter, the composition, role, responsibilities and challenges for dealing with a DMU will be discussed in more detail. Essentially, the acceleration area is a different world than the prospecting world, each with different key success factors. The acceleration phase is more stable, more predictable and organisations can and have to be more responsive to customers. More pragmatic customers can be addressed with testimonials of early adopters as a credibility builder. Moving ahead requires an on-going momentum, while leveraging references. Effectively managing the sales force (Avlonitis and Panagopoulos 2010) is about addressing selectively and progressively strategically lead customers (Sharma 2006) (Millman and Wilson 1996) in a unique bi-directional way: selling the company to the customer and selling the customer to the company. Searching for repeat growth opportunities (Brehmer and Rehme 2009) is a vital part for succeeding (Hui Shi et al. 2010). Moreover, the prospecting and accelerating phases even appear to be fundamentally incompatible. The realities of the earlier phase deal with high risk, non-routine activities and uncertainty. The second phase is about performance, repeatability and predictability with metrics like on-time, on-spec, and on-budget (Govindarajan and Trimble 2010).

Figure 9: Prospecting versus Accelerating: Success factors



Essentially, prospecting and accelerating deals with different external and internal characteristics (figure 9). The conditions are opposing related to market, technology, competition, customer and company dynamics. Furthermore, success factors are dualistic: exploring versus exploiting (Govindarajan and Trimble 2005a; Kyriakopoulos and Moorman 2004; Markides 2008) (1), adapting versus aligning (Birkinshaw and Gibson 2004b) (2), anticipating versus reacting (Narver et al. 2004) (3), driving versus driven (Day 1994; Day 1999; Jaworski et al. 2000; Tuominen et al. 2004) (4) and destructing versus restoring (Birkinshaw 2000) (5).

Interestingly, the previous analysis indicates that different typologies of capabilities and orientations influence the go-to-market during the early time-into-market. Therefore, in the next section, the emphasis will be on how MO and EO can clarify some of the dynamics of creating new radical markets and of scaling businesses towards profitable growth.

MD as a Market Orientation Capability

"From marketing as a function to marketing as a transformational engine" (p. 1) Kumar (2004).

In this section, the research will address how MO as a capability can contribute to creating new radical markets and of scaling businesses towards profitable growth. Interestingly, MO has been studied for more than 40 years and several definitions have been used (Foley and Fahy 2009; Morgan et al. 2009; Schindehutte et al. 2008). Early on, the construct was articulated as the implementation of the marketing concept (Kohli and Jaworski 1990; Shapiro 1988). Table 3 gives an overview of the extensive - relevant for this study - research activities over the years, covering MO as a behaviour, as a culture, as a process, as a capability, as a dynamic capability, on the impact on performance, on the complementarities, synergies and/or overlaps with entrepreneurial orientation. A positive relationship with business profitability was initially demonstrated (Narver and Slater 1990) but over time mixed results have been reported (Diamantopoulos and Hart 1993; Kohli et al. 1993). Research has shown that business-to-business firms are less likely to adopt a market orientation than business-to-consumer firms, but that the impact on performance in industrial firms could be stronger (Avlonitis and Gounaris 1997). Despite of substantial and excellent contributions to the field (Atuahene-Gima 1995; Day 1999; Deshpandé and Farlet 2004; Hult 2001; Jaworski et al. 2000; Kumar et al. 2000; Kyriakopoulos and Moorman 2004; Narver and Slater 1990; Narver et al. 2004; Sittimalakorn and Hart 2004; Slater and Narver 1995), the predictive power with performance is still an open question (Langerak 2003). A major issue is, that market orientation has to date been measured differently and too narrowly and further testing is essential (Narver et al. 2004). More recently, MO research started studying the association of different typologies, based on proactiveness and responsiveness. Several studies of MO have examined the ability of a firm to "sense" or to collect and react to environmental information by generating, disseminating, and responding to information about customers and competitors (Jaworski and Kohli 1993; Kohli et al. 1993; Narver and Slater 1990; Slater and Narver 1995). Day (1994) argues that market driven organisations have superior market sensing capabilities and can act upon trends and events in the environment (Day 1994; Day and Schoemaker 2004a; Day and Schoemaker 2004b). Some illustrations from the field feedback: "*We were very closely connected to the market even if the market and customers were new to us. We went to the market, spent time in the market, went through a learning curve and established several learning partnerships over time*" explained a WoodCo manager. On the contrary, a CoreCo manager looked back with regrets: "*We were lacking internet technology expertise and direct customer insights. We were too far removed from the market to notice the market was shifting in another direction. The attention was too much focused on conversations with existing customers. By the time it became clear to us, it was too late because our developments had reached a point of no return*".

Market orientation and the creation of superior customer value consider a set of capabilities that make a firm market driven, and such firms often outperform less market-oriented rivals (Hunt 2000; Jaworski and Kohli 1993). A WoodCo manager admitted: "*We were technical driven; it was not obvious to find users in a conservative market*". WoodCo realised their lack of market and customer knowledge and to compensate, they spent a lot of energy and time to discuss internally and externally their customer value proposition alternatives. A WoodCo manager explained how they connected with the market: "*We realised during market entry that we needed a sharp compelling proposition that had to remain relatively consistent over time. We developed a strong value proposition story and emphasised our unique competitive strengths; basically a strong product and a simple process, which had been tested in various conditions*". In contrast, RiskCo moved much faster for penetrating the market. They hired several external marketing and sales representatives, who knew the market and were known in the market. The CEO said during one of the many discussions: "*We started in our home country and at launch, we knew what to do, where to go, we knew there were customers who would engage with us. They had been neglected by all large financial groups avoiding risk taking*". Those examples also indicate, that market-driven processes can be very differently implemented (Deshpandé 1999; Deshpandé et al. 1993).

Table 3: MO & EO: Selective literature overview

MO as	Emphasis	References
Initial thoughts	Articulated as implementation of the marketing concept.	(Kohli and Jaworski 1990; Shapiro 1988) (Roberts 1990; Shapiro 1988)
A Behaviour	Responsive behaviour for creating value: customers, competitors, coordination.	(Slater and Narver 2000a; Slater and Narver 1999; Slater and Narver 1995)
A Culture	Responsive focus on market intelligence: generating, disseminating and response design and implementation.	(Harris and Ogbonna 1999; Jaworski and Kohli 1993; Kohli and Jaworski 1990; Kohli et al. 1993; Singh 2004; Yoon and Lee 2005)
A Capability	Key capabilities, which the organisation must develop in order to be market driven.	(Day 1994; Foley and Fahy 2009; Greenley et al. 2005; Hunt 2000; Morgan et al. 2009)
A Dynamic capability	DCAP that facilitates a firm's ability to explore & exploit knowledge & skills.	(Kyriakopoulos and Moorman 2004)
Customer orientation	The customer is central; especially in industrial firms, it makes sense to put the customer central.	(Connor 1999; Deshpandé et al. 1993; Gulati and Oldroyd 2005; Slater and Narver 1999; Souder et al. 1997)
Market driven	Market sensing capabilities and acting upon trends and events.	(Day 1999; Day 1990; Weerawardena and O'Cass 2004)
Market driving	Shaping and disrupting. Evangelising and educating.	(Carrillat et al. 2004; Kumar 2004a)
Market driven versus driving	Research focus is on reactive versus proactive and expressed versus latent needs.	(Jaworski et al. 2000; Kumar 2004a; Narver et al. 2004; Schindehutte et al. 2008; Tuominen et al. 2004)
Market orientation & Entrepreneurial orientation	Opinions are heterogeneous: both orientations share the same business philosophy; they are complementary; their influence is puzzling; for others, they have to be aligned.	(Atuahene-Gima and Ko 2001; Bhuian et al. 2005; George and Zahra 2003; Hisrich 1992; Matsuno et al. 2002; Miles and Arnold 1991; Morris and Paul 1987; Schindehutte et al. 2008)
Performance	A positive relationship with business profitability was initially demonstrated, but over time mixed results have been reported. The predictive power with performance is still an open question. A major issue is, that market orientation has to date been measured differently and too narrowly and further testing is essential.	(Appiah-Adu 1998; Atuahene-Gima 1995; Avlonitis and Gounaris 1997; Deshpandé and Farlet 2004; Diamantopoulos and Hart 1993; Harris 2001; Hult 2001; Langerak 2003; Langerak et al. 2004; Narver and Slater 1990; Sandvik and Sandvik 2003; Singh 2004; Slater and Narver 2000b; Subramanian and Gopalakrishna 2001)

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Moreover, Foley and Fahy (2009) argue that modelling MO within a capabilities perspective (Hunt 2000) may facilitate a more prescriptive approach rather than simply measuring the status of MO, requiring the ability to identify key capabilities, which the organisation must develop in order to be market driven (Foley and Fahy 2009). Addressing new spaces and uncovering latent needs can be accomplished by a proactive market orientation approach (Jaworski et al. 2000; Narver et al. 2004).

This is what StressCo did, by working very closely with a lead user in the Middle East and by solving the problem of growing vegetables under severe climate conditions; they created a new market and product space. On the contrary, a CoreCo manager realised they had not been connected with the market when he said: "*We had limited direct connections with key decision-makers and were too far removed from the battlefield, while competitors were intimate with trendsetting customers*". Visionaries go a step further and drive the market, change the rules of the game, shape and educate a new market. They trigger industry breakpoints, what Andy Grove calls "*strategic inflexion points*", which change the fundamentals of the industry (Burgelman and Grove 1996a; Kumar 2004a).

The research indicated that different 'trigger' approaches are possible. RiskCo was driven by a driving CEO: *"He knew the market, he knew how the industry was thinking and acting. He was a visionary. However, success changed the visionary leader, as he lost interest and attention*" explained a RiskCo manager. In contrast, BioCo had developed a technological breakthrough bio-catalysator for biodiesel, protecting the engine, but they needed a go-to-market partner to access the market. Kumar (2004) argues that a new breakthrough growth path, can be established by corporate ventures, that are offensive, explorative and drive the market forward (Kumar 2004a). It is not obvious, because customer value may require either breakthrough technology or breakthrough marketing (Christensen and Raynor 2003). The key for successful discontinuous market offerings is, that solution providers solve a mission critical problem and create a leap in gain associated with a low perceived pain (Moore 1999).
"*The issue is essentially about prioritization, who to address, who not. Who you can serve best. Who gains most? You cannot shoot at all moving targets. Our venture is*

resource constraint and we have to be extremely selective because every customer requires an amount of customisation" explained a SmartCo manager. RiskCo was able to change the 'gain-pain' balance of their customers by co-creating a customized solution and by allowing their customers to decide on the risk factors. Their sales representatives were perceived as trusted advisors. A RiskCo director of the board elaborated on their approach: "*We were able to create a team with highly-specialized credible experts in credit insurance. The new associates knew the sector and the decision makers with their clients*". Most organisations only emphasize their technological superiority and go only with products to the battlefield. Better, like WoodCo did, is to probe and experiment with an early application of the product to plausible customers and expand the offering with product related services, customized knowledge and unique business model elements (Lynn et al. 1996).

But market orientation does not mean becoming marketing-driven; it means that the entire organisation is obsessed over creating value for the customer and views itself as a bundle of processes that profitably define, create and deliver value to its target customers (Kumar 2004a). Furthermore, market orientation is a pivotal resource that can enhance success, but its potential value should not be considered in isolation (Hult 2001) and could be complemented by other firm capabilities (Noble et al. 2002), such as entrepreneurship (Zhou et al. 2005). However, relatively few empirical studies have examined the complexity of the effects of responsive and proactive MO (Atuahene-Gima 2005; Atuahene-Gima et al. 2005), the critical capabilities to become MO (Vorhies and Harker 2000) and market knowledge interactions (De Luca and Atuahene-Gima 2007; Kim and Atuahene-Gima 2010).

RiskCo was able to leverage its relationships with their customers: *"We were allowed to use customer references publicly. This was not easy. The fact that large organisations were joining was very important and confirmed to others we were safe. In the beginning, it is very important to establish credibility with some big names and use those to get follow-on customers"* told a RiskCo manager. WoodCo was actively present in the market, talking to as many knowledge organisations and influential experts as possible.

However, they were modest in communicating with the market players, with the aim of not overcommitting and for staying under the radar of potential competitors.

In a recent study, Talke and Hultink (2010) confirm that a careful management of diffusion barriers related to multiple stakeholders is a relevant task when launching a new product (Talke and Hultink 2010). Furthermore, a SmartCo manager emphasised the importance for adapting during the diffusion and adoption process and raised the idea for changing marketing roles and responsibilities as a RCV progresses with prospecting: "*You need a different skill set and attitude during the early stages. New business development is an intriguing experience. You need freedom to act and accept a messy fuzzy environment. This kind of marketing is what I like to. But it is not for all. During launch you need type 1 marketers or explorers; during growth you need type 2 marketers or settlers. The two types are equally important. They are different and are coming from different planets*".

To summarise, during the prospecting phase, a RCV has to be driving the market, has to mobilise the organisation to execute their ambitious strategic intent and therefore has to educate and evangelise the early prospects. The goal is to experiment and use trials to prove and convince, and essentially, to gain trust. During accelerating, a RCV has to be driven by the market and has to become more offensive towards all stakeholders. Simultaneously, responsiveness, QMI, OTD and operational efficiency become more relevant.

Basically, the previous analysis indicates that MD can be viewed as a MO capability. Two main MO typologies could be identified: a market driving and a market driven. The first one is explorative and seems to be a good fit during the prospecting phase. The second one is exploitative and appears to be a good fit during the acceleration phase. Moreover, the effect of other orientations should still be verified. The next section will assess BD and EO through a capabilities lens.

BD and Entrepreneurial Orientation through a capabilities lens

"The track record of corporate ventures is mixed – a combination of dramatic failures, successes and mediocre results" (p. 13) (Block and MacMillan 1995).

In this section, this study will assess BD and EO through a capabilities lens. Concurrently to market orientation, but in the management literature and as a separate stream, EO has been considered as a catalyst and an accelerator of renewal and growth. EO can be viewed as a major engine of new business development and as an offensive approach towards new promising growth opportunities (Lumpkin and Dess 1996; Vale and Addison 2002). According to Mintzberg (1973), EO is characterised by the active search for new opportunities and dramatic leaps forward in the face of uncertainty (Mintzberg 1973). Peter Drücker (1985) wrote that the business enterprise has two and only two basic functions: marketing and innovation. Marketing and innovation produce results; all the rest are costs (Drücker 1985). EO represents one of the major engines of adventuring in new spaces and has become an essential feature of high-performing organisations (Lumpkin and Dess 1996). Established companies try to copy agile, adaptable, fast growth, small company organisation capabilities (Hamel 1999). The creation of RCVs to nurture an EO culture inside, is the reaction of established corporations to start-ups, for succeeding with game-changing innovations (Christensen and Raynor 2003; Govindarajan and Trimble 2005a; Markides 2008). Those RCVs are new business development organisations (Birkinshaw and Hill 2005b; Burgelman 1984; Burgelman 1983b; Burgelman and Välikangas 2005; Thornhill and Amit 2000), are created to address new market and new product spaces (Christensen 1997; Kim and Mauborgne 2005; Tushman and O'Reilly III 1996). EO refers to a firm's strategic orientation with entrepreneurial aspects of decision-making styles, methods and practices that lead to new entry (Lumpkin and Dess 1996). Practically, EO can be defined in terms of five components: innovativeness (introducing novel products, services, or technologies, and to develop new markets), pro-activeness (seeking new ways to implement an entrepreneurial concept), and risk taking (making reasonable decisions when faced with environmental uncertainties), autonomy (the independent spirit of taking directions and actions) and competitive aggressiveness (intensity to outperform rivals in the marketplace) (Lumpkin and Dess 1996). Moreover, there are different theoretical ways of viewing EO. This study builds primarily on two mainstream theories of EO, related to the organizational context of this research (Birkinshaw 2000). Schumpeter's view, is a process of creative destruction towards an environment out of equilibrium (Birkinshaw 2000; Schumpeter 1934). Kirzner, in contrast, views EO as an on-going process of adjustments towards equilibrium (Birkinshaw 2000; Kirzner 1973; Kirzner 1997). The question is not which of the two is better, but rather identifying when each is more appropriate. Therefore, EO can be viewed as a management or business development capability by which firms embark on equilibrium destroying initiatives - Schumpeterian view - or equilibrium restoring initiatives - Kirzerian view - to mould the competitive landscape to their advantage. In other words an entrepreneurial driving and an entrepreneurial driven approach complement each other. The early launch phase requires a Schumpeterian mind-set, while the following growth phase, requires a Kirznerian mind-set.

A Schumpeterian EO occurs best under a high rate of change, fear, uncertainty and doubt (Schumpeter 1934). Basically, the exploration logic seems then the most effective. It is about identifying and acting on new opportunities which is more consistent with experimentation, probing, proving, learning and getting testimonials and the search for the 'next big thing'. The appropriate organizational capabilities call for flexibility, greater decision autonomy and continuous adaptation to the environment.

On the contrary, a Kirznerian EO is best suited under a low rate of change, when the exploitation logic seems the most effective and the new emphasis is on effectiveness and efficiency (Kirzner 1997). The appropriate organizational capabilities highlight directing and managing efficiency, operations management and optimizing and balancing resources. More specifically, Sawhney and Prandelli (2000) provide a comprehensive list of capabilities for customer knowledge co-creation. First, customers must be able to speak the same language as the supplier. To be able to contribute their own knowledge, customers first need to absorb the firm's specific knowledge and to understand its meaning. "*The Dutch firm was initially of interest to us for their equipment for testing our samples and testing product and process parameters. But we discovered with them* *the importance of the supply chain. They had also market knowledge, access and the Dutch market appeared more open and earlier ready for our applications. In the end, we had very strong incentives to succeed together"* told a WoodCo manager. Second, customers must have deep trust in the firm. Building trust takes time. Therefore, the testing, the trials and proving are necessary and important to convince the emerging lead users and customers, that the offerings perform and are reliable. All RCVs spent several years trying to convince they were trustworthy. However, not all succeeded; especially CoreCo failed. Third, customers must be motivated to take part in the knowledge creation process. "*I (the new CEO) am an Israeli general, which means I am together with my troops at the battlefield, I am not in my office. I have to be with customers in the field to understand what's going on. What is the climate? How is our customer doing? What are the new opportunities? How can we get better and faster?* Explained the RiskCo CEO. Moreover, firms need to develop an absorptive capacity through frequent and in-depth dialogues with their customers. They need an ability to recognise the value of customer knowledge, sense and incorporate it within the firm. CoreCo was set up as venture, had to change the rules of the game inside the company and in the market. However, they remained too close to their existing customers. CoreCo became myopic on the core of the network, developing a product for a market that disappeared. Interestingly, after the experimenting efforts in several countries and with different Go-to-Market partners, WoodCo finally was able to succeed in the Netherlands with a committed partner, with a strong motivation to work closely together. One WoodCo manager confirmed on that topic during an interview: "*We had very strong incentives to succeed together*". Sawhney and Prandelli suggest that as strategy becomes interactive, involving more dialogue and collaboration with customers, there must be wider dispersion of information and decision-making throughout the organisation (Sawhney and Prandelli 2000).

In technology intensive markets standards and regulations can be a major differentiating factor. An important factor to track is the compatibility between duelling new technologies and established products. In "the art of standard wars", Shapiro and Varian (1999) argue, that strengths in the standards game are determined by ownership of critical capabilities, like access to an installed base or intellectual property rights and first-mover advantages. They also recommend that before going to war, it is good practice to assemble allies. Not even the strongest organisations can afford to go it alone in a standards war (Shapiro and Varian 1999). Furthermore, managing customer expectations could become a self-fulfilling prophecy when network effects are strong. To manage expectations, RiskCo for example, engaged in aggressive marketing, assembled strong brokers, and made visible they were committed to succeed. Interestingly, Prahalad (2004) talks about experimental innovation or a new logic for value creation, based on co-creation of value and the fact that value is embedded in relational experiences (Prahalad 2004; Prahalad and Krishnan 2008). For many managers, it became clear, that focusing narrowly on the transaction is a too limited view of value creation (Sawhney 2002). The building blocks of this experience-based value creation paradigm are: dialogue, access, risk-benefits and transparency. Furthermore, Gulati and Oldroyed (2005) argue that many organisations claiming to offer customer solutions, are not set up to deliver them without specific changes in organizational structure and relationships. For solution selling, knowledge and expertise can not be housed in silos (Gulati and Oldroyd 2005).

Basically, the previous analysis indicated that BD can be viewed as an EO capability. Two main EO typologies could be identified: an entrepreneurial driving CAP based on Schumpeter and an entrepreneurial driven CAP based on Kirzner. The first one is explorative and seems to be a good fit during prospecting phase. The second one is exploitative and appears to be a good fit during the acceleration phase. Moreover, the effects of alignment among MO and EO orientations should still be verified. In the next section, the impact of an aligned entrepreneurial market orientation will be discussed.

MBD and EMO through a Capabilities Lens

"*Leadership is about effective layering strengths*" (p. 77) (Magee 2009).

In this section, MBD and EMO viewed through a capabilities lens, will be analysed and discussed. As mentioned earlier, MO has been studied for more than 40 years (Foley and Fahy 2009; Mohr and Sarin 2009; Morgan et al. 2009; Schindehutte et al. 2008; Verhoef and Leeflang 2009) while EO has been on the research horizon for the last 20 years (Lumpkin and Dess 1996; McGrath and MacMillan 2000; Miles and Arnold 1991). The combination, market and entrepreneurial orientation has begun to receive greater research attention (Miles and Arnold 1991). Srivastava et al. (2001) argue that the coexistence of entrepreneurial and market orientation could be ideal for seeking competitive advantage through both adaptability and management of the market environment (Srivastava et al. 2001). A large research stream indicates that both orientations share the same business philosophy, that their influence is puzzling (Becherer and Maurer 1997), that the nature of the environment may modify the relationship among both orientations (Morris and Paul 1987), that an alignment between both orientations is important for performance (Atuahene-Gima and Ko 2001). Moreover, Markides (2008) suggests, that in order to influence organizational capabilities, the organizational environment has to be manipulated or created. By organizational environment, he means four basic elements: the culture, which includes its values and unquestioned assumptions; the structure of the organisation; the incentives; and the organisation's people. He further claims, that by creating the appropriate organizational environment, the desired behavior ultimately will emerge (Markides 2008). Essentially, both orientations are about value creation (Collinson and Shaw 2001) and value appropriation (Schindehutte et al. 2008). However, the diversity in approaches indicates, that the combinative effects are undoubtedly complex and need further investigation (Bhuian et al. 2005; Matsuno et al. 2002). Basically, this MO, EO and EMO literature review confirms, that most research has run in parallel tracks. The management literature focused on entrepreneurial orientation, while the marketing literature focused on market orientation. Atuahene-Gima and Ko's (2001) explored an interactive relationship between MO and EO, viewing them as complementary resources, which need to be 'aligned' for optimum performance. They further argue that organisations should balance their emphasis on market altering activities (entrepreneurship orientation) and market responsiveness (market orientation) and the coexistence of both orientations could generate competitive advantage (Atuahene-Gima and Ko 2001). Atuahene-Gima and Ko (2001) advocate the synergetic view of MO and EO and confirm a positive impact on performance. And, the debate goes on. Schindehutte (2009) disagrees with the synergetic effect and argues, market driving not to be an extension of MO, but rather to be associated with EO.

In the previous sections the research suggested, that MD could be viewed as a MO capability, by which organisations are responsive to markets and customers (market driven) or proactive while educating customers (market driving). BD in contrast, could be viewed, as a management or EO capability, by which firms embark on equilibrium destroying initiatives (Schumpeterian view) or equilibrium restoring initiatives (Kirzerian view) to mould the competitive landscape to their advantage. Several MO, EO and EMO domain experts indicate, that over the last 40 years, a lot of research has been conducted, but that the scope and purpose of this research project offers attractive opportunities and motivations for empirical research:

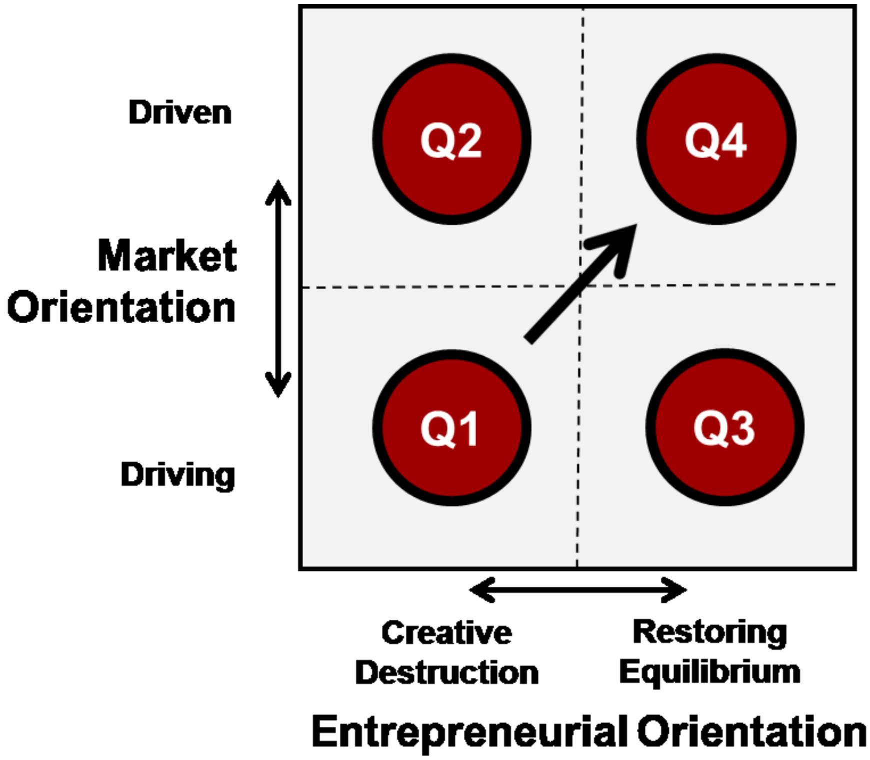
1. MO has been studied for more than 40 years.
   (Schindehutte, Morris et al. 2008; Foley and Fahy 2009; Mohr and Sarin 2009; Morgan, Vorhies et al. 2009; Verhoef and Leeflang 2009).
2. EO has been on the research horizon for the last 20 years.
   (Miles and Arnold 1991; Lumpkin and Dess 1996; McGrath and MacMillan 2000).
3. The coexistence MO en EO could be ideal for seeking competitive advantage through both adaptability and management of the market environment.
   (Srivastava, Fahey et al. 2001).
4. The EMO combinative effects are complex and need further investigation.
   (Matsuno, Mentzer et al. 2002; Bhuian, Menguc et al. 2005).
5. Atuahene-Gima and Ko (2001) advocate that MO and EO orientations are not stable, take time to involve and change over time and future research should study their evolution (Atuahene-Gima and Ko 2001).

The MO and EO key characteristics, identified in the previous sections, were basically:

- ✓ First, market driving was about shaping the market based on an ambitious vision and a strategic intent. The organisation had to educate the market. Flexible focus, being effective and proving the value proposition was critical. It is a push model.
- ✓ Second, market driven was about serving the customer by listening to their needs. In other words, being responsive and reactive. Internally, a major driver was to be efficient and to get results. It is a pull model.
- ✓ Third, creative destruction or the Shumpeterian view was about identifying new opportunities and about disrupting and changing the rules of the game. The organisation had to excel in experimenting. An exploration logic is typical.
- ✓ Fourth, leveraging resources or the Kirznerian view was about identifying hitherto unnoticed opportunities. Focus was on efficiency, fine tuning and optimizing of resources. The exploitation logic is valid.

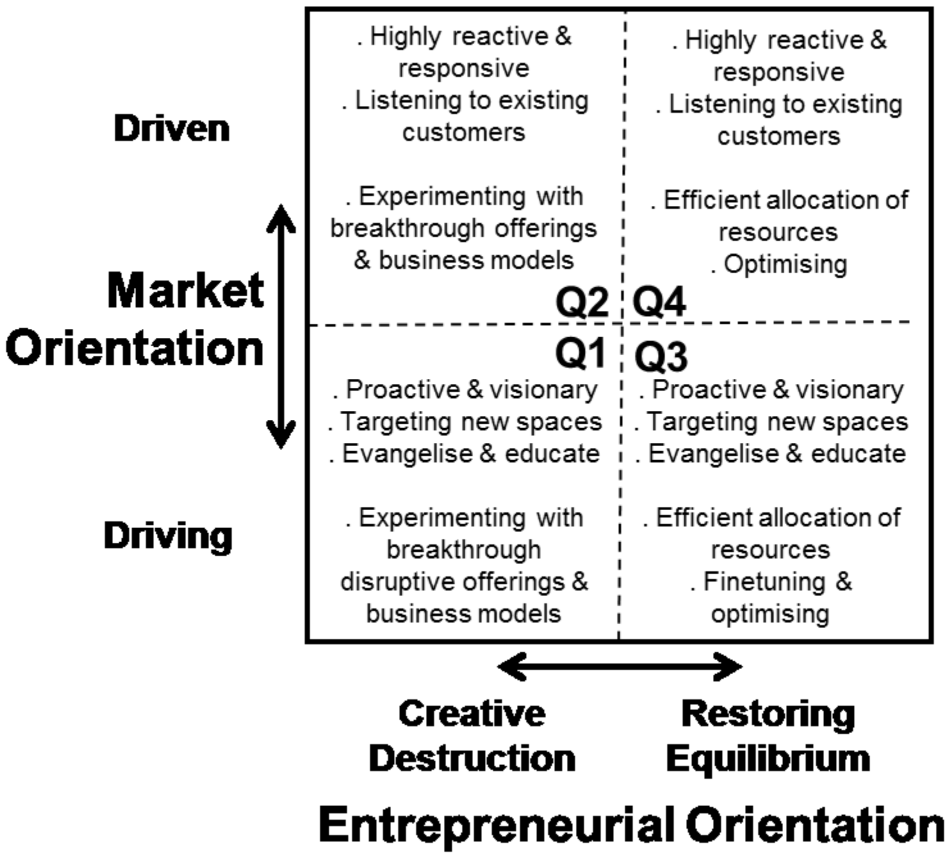
Merging those four orientations in one framework, allows us to assess the synergies and the conflicts among orientations. Figure 10 is a graphic representation of the different EMO typologies with four quadrants: Q1, Q2, Q3 and Q4. Figure 11 further describes the characteristics of the four quadrants and figure 12 summarises the congruency or strategic fit among orientations. The first quadrant (Q1) shows that the organisation is proactive, is visionary with an ambitious strategic intent, targets new spaces and is keen for educating the customers. At the same time, they are experimenting with breakthrough offerings and disrupting business models. An illustration of this is WoodCo, who initially addressed the conservative wood sector with a biomass-based breakthrough product and process. This suggests good strategic fit across MO and EO, both are exploratory. We indicate this on figure 12 as E1/E1 or good fit. The second quadrant (Q2) indicates a responsive organisation to customer needs and requirements but at the same time willing and committed to experiment with breakthrough offerings and disrupting business models. An example of this situation happened with CoreCo, who was committed to 'leapfrog the competition' but who remained close to their existing service provider customers. This ambivalent approach leads to major internal and external conflicts.

Figure 10: MBD and EMO: Generic framework



In this case, there is less strategic fit because MO is exploitative (E2) and EO is exploratory (E1). We indicate this on figure 12 as E2/E1 or low fit. The third quadrant (Q3) is characterised by a proactive approach, while targeting new spaces. However, this is complemented with efficiently managing and allocating resources. An example: BioCo was dealing with the challenges of such a position. They were keen to commercialize technological advanced products but at the same time they remained very results oriented and bottom line driven. In such situations, an explorative MO (E1) and an exploitative EO (E2), do not reinforce each other but rather slow down commercial success. We indicate this on figure 12 as E1/E2 or low fit. The fourth quadrant (Q4) indicates a responsive market perspective in combination with efficient resource allocations and optimization. RiskCo needed a change agent and a new business driven CEO who transformed the organisation, closely listening to the voices of the customers and brokers, while improving efficiency in operations and increasing the decision making speed across organizational activities. An exploitative MO (E2) and exploitative EO (E2) were in this organisation synchronised and were strengthening commercial initiatives. We indicate this on figure 12 as E2/E2 or good fit. Essentially, the MBD and EMO framework indicates, that there are two coherent positions Q1 and Q4, along a 'coherence line' and two conflicting positions Q2 and Q3, along a 'conflict line'. Quadrant 1 and quadrant 4 show a synergistic effect of the orientations. Quadrant 2 and 3 show conflicts among the orientations. Consequently, the thesis is that MBD and EMO are most synergetic for two typologies: EMO Driving and EMO driven. During the prospecting phase, EMO Driving appears to be the better choice, while during the acceleration phase; EMO Driven seems to be better. Organisations that can combine, balance and synchronise strategic orientations or organizational capabilities are likely to have better performance than those with singular strategic orientations (Atuahene-Gima and Ko 2001). Because the fit of organizational characteristics to contingencies, lead to better outcomes, and the better organisations try to attain fit. Those organisations are motivated to avoid the misfit, that results after contingencies change and they do so by adopting new organizational characteristics that fit the new levels of the contingencies. Thus contingency theory contains the concept of a fit, that effects outcome, which in turn initiates adaptive organizational change. This results in organisations moving into fit with their contingencies, so that there is an alignment between the organisation and its contingencies (Donaldson 2001). The resource based view (RBV) and the capabilities based view (CBV) supports the findings. An alignment between EMO is argued to be valuable, difficult to imitate, and rare tangible and intangible resources, processes and values that are difficult for competitors to match (Barney 1991; Barney 1995). Basically, the CBV of the organisation is based on the assumption that organisations know how to do things (Dosi et al. 2008) or in other words know what they are really great at doing. Dosi (2008) distinguishes routines from capabilities and claims that capabilities involve more significant commitment, enable more significant outcomes and conscious decisions (Dosi et al. 2008). Practically, what an organisation is capable of doing is determined by its resources, processes and values (Christensen 1997; Christensen and Overdorf 2000; Christensen and Raynor 2003). If an EMO orientation is part of the organizational DNA and embedded in the culture of the RCV, then this could stimulate congruent behaviour (Deshpandé et al. 1993; Slater and Narver 1995). An EMO alignment, can create complex, tangible, intangible and adaptive capabilities that lead to sustainable competitive advantage (Atuahene-Gima and Ko 2001). Furthermore, the research also indicates that migrating from one orientation to another one, represents a major challenge. The two approaches are at odds. Scaling up new markets consumes lots of resources and growing the business towards growth is a prerequisite for getting a return on the RCV (Govindarajan and Trimble 2005c). An organisation does not have to master all MBD capabilities itself.

Figure 11: MBD and EMO: Description of typologies



The secret is not to create a laundry list of capabilities to master and then get overwhelmed with many conflicting execution issues. Rather, the challenge is to pinpoint which capabilities are differentiating an organisation in each phase and coherently focus on those capabilities.

Figure 12: MBD and EMO: Coherency and conflicts

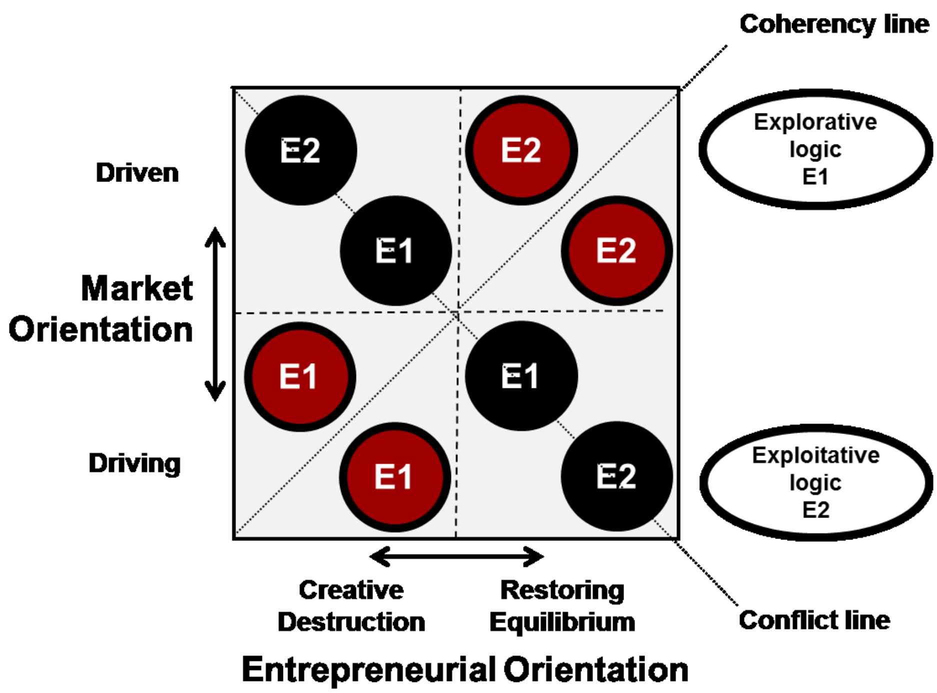
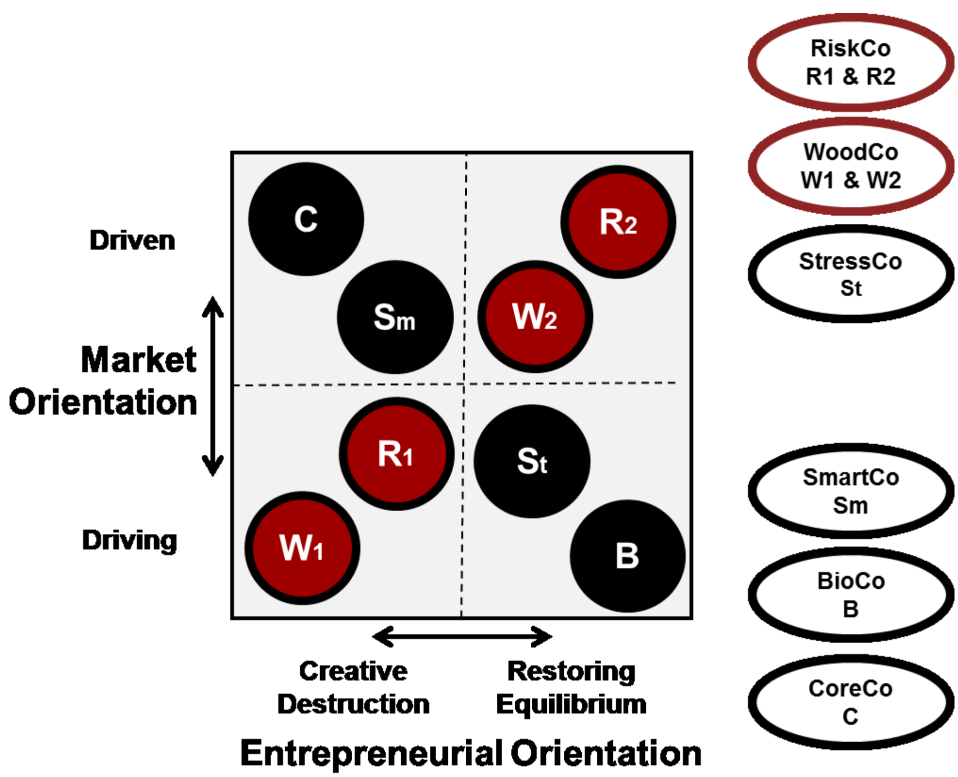


Figure 13: MBD and EMO: Positioning of the cases



However, the RCV has to remain constantly alert, stay adaptive and react rapidly and coherently to external stimuli (Leinwand and Mainardi 2010). If we reverse the words "exploration" and "exploitation" in his original quote, then Markides (2004) could have said: "*The skills and attitudes needed for "exploitation" cannot easily co-exist with the skills and attitudes needed for "exploration"; they more often conflict with each other. Attempting to bring on board the skills of "exploitation" will most likely create an immune reaction. The organisation's anti-bodies will go to work and the new skills and attitudes will be rejected as unwanted foreign organs"* (p. 36) (Markides 2004).

However, building and developing capabilities takes effort and time. The faster the external market pace and rhythm, the faster an RCV has to switch from one type to another. Govindarajan and Trimble (2010) emphasize that innovative organisations, should be able to forget the past, build new capabilities with a sense of urgency and borrow missing capabilities. They also argue that the winner of the race is not the organisation with the best strategy at the start, but the one that is most alert and agile (Govindarajan and Trimble 2010). In other words, the new business environment will favour those companies able to execute strategy faster, with more flexibility and adaptability (Govindarajan and Trimble 2010).

Figure 13 gives an overview of where the cases are positioned on the map. RiskCo started as an innovative breakthrough solution provider with an innovative new business model (R1). They developed an original vision of risk protection, relying on the insured's self-management, who himself determined the parameters of his insurance policy. RiskCo positioned themselves as a large organisation, attacked the market aggressively, resulting in a high visibility. A state of the art information system enabled sharing and fast decision making. Driven by a vision and a mobilized organisation they moved very fast and convinced several trials with major customers. The entrepreneurial CEO saw his dream and vision realised but became bored and lost interest. The organisation was for a couple of years without steering wheel and without strong drive. A new business CEO revitalized and rejuvenated the organisation, connected with their industrial customers and brokers. The organisation switched from DNA and leveraged its exploitative EMO alignment (R2). Also WoodCo offered initially a breakthrough technological innovation through a breakthrough business model (W1). One manger stated: "*In the beginning it was not obvious to find early users because we were dealing with a very conservative market*". Another one added: "*We realised that a lot of experimentation was needed*". Due to the complexity of the testing and the conservative market, they spend several years testing and searching for the right go-to-market partners. They understood very well the critical role of managing and leveraging other partners. WoodCo moved very meticulously, step by step and gained excellent credibility and visibility, by being selected for innovation awards in several markets. During their prospecting phase, they had been working under the radar of large chemical corporations. Through persistence and determination, they ultimately engaged in a relationship with a Dutch innovative wood distributor, which proved to be an ideal combination. The managing director stated: *"The Dutch firm was initially of interest to us for their testing equipment. We discovered the importance of the supply chain. They had also market knowledge, access and the Dutch market was more open and earlier ready".* They complemented WoodCo's capabilities with market knowledge, operational wood modification equipment, market access and a reputation as an innovator. Ultimately after several years of experimentation in different countries and with different go-to-market partners, they moved towards a phase of growth. Ultimately, they found the right complementors and have been able to migrate in the Netherlands towards an exploitative EMO alignment (W2). In contrast, CoreCo got in trouble from the early days, and had to deal with major internal and external conflicts. On one hand, they wanted to make a giant leap forward versus the competition with a state-of-the-art offering and on the other hand, they were listening to the existing customers and deploying established large company processes. During the prospecting phase they had lost credibility with some lead users, because they remained focused on the high-end router market. CoreCo became a large RCV and adopted too many bureaucratic managerial approaches of the mother company, resulting in slow decision making. At the same time, new start-ups came to the market with a next generation product. CoreCo lost the interest of lead users, lead customers, lead suppliers and lead experts. They were too far removed from the market to notice the market was shifting and drifting towards the edge of the network. One manager noticed: *"In a severe battle there is no time for* *learning and watching but what you need is the fastest execution".* As a result, CoreCo dealt with major conflicting challenges. Ultimately, after more than five years after creation, CoreCo was dismantled. A Silicon Valley based start-up was ultimately acquired. Interestingly, while CoreCo was struggling, an emerging competitor, named CoreB succeeded. CoreB was a new start-up of serial entrepreneurs, who knew the market and the service provider customers. They kept a very close link with trendsetting customers. They kept a laser focus on specialized market segments that were under-served. The CEO of CoreB mentioned when asked to expand on their approach: "*Focus was our success factor, not magic".* And he continued saying: "*Our low profile was aimed at keeping the focus on proving. Promises do not move packets*". Furthermore, CoreB involved very actively early users during their commercialisation processes. For the 'go-to-market' they used a highly specialized sales force, complemented with specialized value added resellers and distributors. In addition, they guaranteed a world class customer services portfolio for service providers, including standard support via telephone and the web, plus options for onsite support and hardware replacement. In other words, they proved that they were able to understand the market and technology prerequisites in order to succeed. Another example, SmartCo, was close to a "stuck in the middle" position. They were willing to listen to the voice of the conservative utility customers and at the same time were experimenting with a new go-to-market strategy. They were traveling around the globe, discussing primarily with the utility technical departments and had limited access to business decision makers. SmartCo ignored the signals of the market to collaborate and to join other companies in a complementary eco-system. A manager admitted, while reflecting on what they could have done differently. Without a hesitation he said: "*We should have decided much earlier and much faster with whom to collaborate. We underestimated that in for us a new market sector, we had no strong brand, no access to executives and basically no proven credibility. Partnering should have enabled us to get much faster a good reputation*". StressCo also ended up in a dangerous "stuck in the middle" area, being highly technology centric, but deploying conventional commercialisation strategies. Essentially, they were highly bottom-line oriented, which conflicted with the market driving mind-set. Furthermore, BioCo was another technological breakthrough project that faced several challenges. Highly driving the markets was part of their DNA. However, at the same time the expectations were to get quickly a positive return on innovation. This conflict made that the organisation was not synchronised enough to progress.

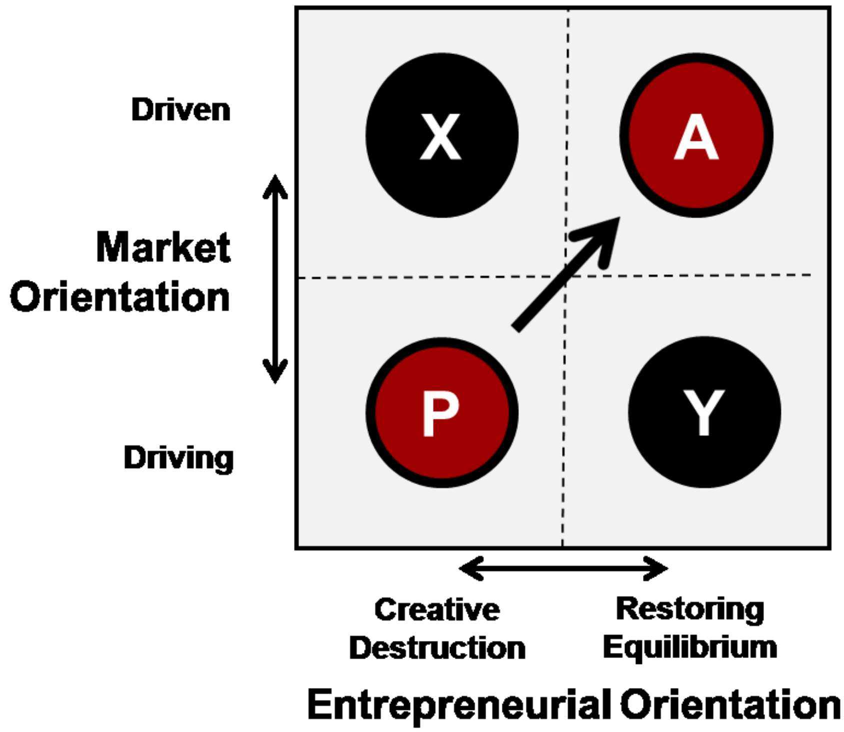
The alignment of MO and EO is summarised in figure 14. First, the combination market driving and entrepreneurial driving (P) appears to be a good fit. Second, the combination market driven and entrepreneurial driven (A) seems to be able capitalizes and leverages the synergies of both capabilities. Third, combining market driven and entrepreneurial driving (X) is full of conflicts. Fourth, the combination market driving and entrepreneurial driven (Y) deals with several conflicting challenges. Succeeding with radical corporate ventures implies that an organisation has to be able to be great in position P and A and be able to transition from P to A (Bauwen and Hart 2011a).

In practical terms, initially experimenting combined with an ambitious strategic intent approach appears to be the better strategic alternative. It is essential from the beginning to signal your targeted lead users and customers, that you are not a philanthropic institute, but an organisation that is able to evangelize and prove and that you need a fair amount of value in return for the delivered offerings. Moreover, progressively over time, a more strategic selling focus is required, which requires accelerating the market development through responsiveness, but simultaneously increasing business development, by deepen the strategic conversations and dialogues. Rodgers (2003) defined diffusion as the process by which an innovation is communicated through channels over time among the members of a social system (Rodgers 2003).
Furthermore, the research indicates that RCVs benefit from operating early on, like a laser beam instead of a flashlight (Day and Schoemaker 2004b). In other words, a good practice appears to be to follow a waterfall instead of a sprinkler penetration process (Stremersch and Tellis 2004; Tellis et al. 2003), in order to cross a chasm between early adopters and an early majority, target a beachhead or visualise the market like a bowling alley (Moore 1999; Moore 1995), from probing towards learning (Lynn et al. 1996), look for innovators then imitators (Bass 1969; Rodgers 2003), target influentials then innovators (Van den Bulte 2002; Van den Bulte and V. Joshi 2007), move from incubation towards acceleration (O'Connor et al. 2008b), migrate from colonisation

towards consolidation (Markides and Geroski 2005), go for trial sales and then repeat sales (Hahn et al. 1994), address a through (Tellis 2008), master the hype cycle (Fenn and Raskino 2008), pass a tipping point (Gladwell 2001; Kim and Mauborgne 2003) and master superior pattern recognition and faster decision making (Day and Schoemaker 2004b). It is a balancing act towards the right targets, right timing, right pace, and right trajectory (Bauwen and Hart 2011b). In reality, targeting faces many challenges. To help prioritise organisations to select the better prospects, Day developed a framework with key questions, to be answered before engaging into a customer proposal (Day 2007). As in military reconnaissance, the key is rapid information processing, quick sense making and fast refocusing, all with high vigilance (Day and Schoemaker 2004a). In another article, Day and Schoemaker (2004) identified the following strategic alternatives. First, position and learn, while considering that as uncertainty erodes, a more aggressive approach is needed. Second, believe and lead with full-scale commitment, when the opportunity is very promising or the threat is imminent, and the organisation is sufficiently persuaded by the available evidence. Third, watch and wait, when there is a high uncertainty, due to conflicting information and/or the RCV has the resources to be a fast follower (Day and Schoemaker 2004a). Ultimately, a transformation capability is required to migrate from position P to position A. When and how fast to migrate from P to A, depends on external market factors and the internal DNA of the organisation. An additional major challenge for radical corporate ventures appears to be, that the same radical corporate venture has to deal simultaneously, with entering embryonic markets, migrating towards emerging markets and serving developing markets.

Finally, how does a RCV know they are reaching the ‘tipping’ moment? A good practice is to monitor and constantly assess the progress and that of key competitors of the RCV’s testing and testimonials initiatives with lead users and lead customers. A good signal is, when some of the lead customers are considering repeating an order and when opinion leaders talk favourably about the RCV’s potential. A SmartCo manager talked about facing reality and explained: “*Several utility companies wanted to verify and were looking for a proof. Their technical departments were keen to test and give us feedback on and what we had to change to keep them happy. We learned that: as long as you have not elevated the discussion to a higher level of business talk, you remain in the technical* *doldrums*". Without an in-depth understanding, insights and appreciation of the customer's business and value chain, any RCV cannot develop compelling customer solutions. The result might be new value for the customer, but a RCV needs sufficient revenue for the efforts. Excessive customisation can destroy the economics of any RCV.

Figure 14: MBD and EMO: Strategic alternatives



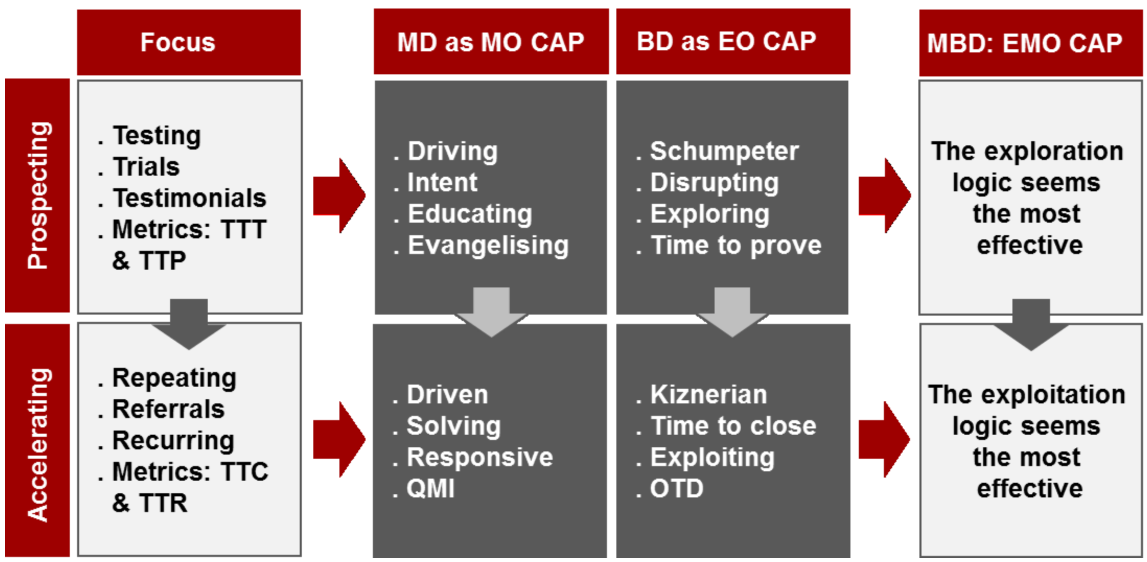
Solutions should be replicable and next generation offerings are essential. There needs to be a willingness and a readiness from both sides to effectively collaborate (Gosselin and Bauwen 2006). Therefore, a new type of key account manager (KAM) could facilitate the relationships. Indeed, KAM is typically used for commercial activities with important existing customers, but could be very instrumental during the early phases towards strategic lead customers. For those selective leads, an innovation account manager (IAM) could orchestrate the relationship, initiate actions and monitor progress.

In the next section, the conclusions will be discussed.

Conclusions

This chapter described, assessed and discussed the findings related to MBD of RCVs through a capabilities lens. The data originated from the interviews, the focus group sessions, the many conversations with managers and from a massive amount of primary and secondary data. This empirical research took a fresh look at the market orientation and entrepreneurial orientation construct, their alignment and evolution during the early commercialisation phase of radical innovation projects in knowledge intensive and industrial markets.

Figure 15: MBD and EMO: Generic model



*TTT: time-to-test – TTP: time-to-prove – TTC: time-to-close – TTR: time-to-repeat

Succeeding is not just about developing a new market. Nor is it only about developing a new business. In fact, focusing on any of these elements in isolation may drive organisations to an illusion they are on the right track.

The findings have been discussed in relation to the MBD, the EMO, the capabilities and the RCV literature. First, the early commercialisation area was unbundled in a prospecting phase (1) and an acceleration phase (2). For both phases, external and internal characteristics have been analysed and key success factors been identified. Next, MD as a MO capability and BD as an EO capability have been assessed, impact and consequences discussed. Then, MBD was linked to an Entrepreneurial Market Orientation (EMO) capability for the prospecting and the acceleration phases. An explorative EMO capability and an exploitative EMO capability have been identified and discussed. MD is basically the creation of a market and more specifically the creation of customer awareness, interest, attention and value. BD is essentially the capturing of value for the RCV and is more specifically the selling, serving, solving and delivering and creating of value for the company. The research findings led to some interesting new EMO insights, based on a Schumpeterian EO versus a Kirznerian EO and a market driving MO versus a market driven MO, including two optimal positions. Moreover, the study also emphasizes the need for a migration trajectory of an aligned EMO over time, in order to bridge the 'Prospecting to Accelerating' phase.

In order to succeed during the early commercialisation launching phase, an offensive and aggressive position appears to be the best choice. This position (P) is categorized by driving the market and by disrupting the industry equilibrium. As fear, uncertainty and doubt in the market erodes, a responsive and reactive position appears to be the best choice. This position (A) is categorized by market-driven and business driven RCVs. Moreover, the RCV has to migrate from prospecting towards accelerating.

In the next chapter, the research will investigate how prospecting and acceleration phases can be bridged.

CHAPTER 7: MBD THROUGH A DYNAMIC CAPABILITIES LENS

Introduction

In this chapter, MBD as a dynamic capability will be empirically investigated. First, findings will be explained, discussed and related to the literature, related to the scope of this research project with an emphasis, on how to bridge the prospecting phase towards the accelerating phase. Second, distinctive components of the MBD dynamic capabilities will be covered and discussed and linked to the literature. Finally, conclusions will be drawn.

Figure 16: MBD: Bridging the prospecting towards the accelerating phase

MBD as a Dynamic Capability

"The dynamic capabilities framework is grounded in Kirznerian and Schumpeterian theories of economic change"(p.16) (Teece 2009).

The research suggests, that most companies do not fully realise the critical "moment of truth" (Gladwell 2001) they face, when they are at the 'Prospecting to Accelerating' gate. A majority of involved managers, did not sense, ignored the transition issues, were not able, did not know what to do differently or were not willing to tackle the transformation challenges. Surprisingly, many applied a conventional commercial approach during the early time-into-market, throwing the responsibility towards the sales force and expecting them to make it happen. This research indicates that at this very moment, an orchestrated transformation process is needed. Major challenges have to be addressed and the transformation approach has to be sensitive to the heterogeneous interests of several stakeholders, like marketing and sales, partners and engaging customers. The paradox is, that the better the organisation has been at building strong capabilities during the prospecting phase, the harder it will be, to migrate towards the accelerating phase. This means that the organisation's culture, resources and processes, which constituted a powerful ability in addressing certain types of problems, could constitute an equally powerful disability in addressing the new realities (Leonard Barton et al. 1994).

Helfat and Peteraf (2003) introduced the notion of capability lifecycle, to indicate the dynamic character of capabilities (Helfat and Peteraf 2003). Moreover, the essence of dynamic capabilities, is about constantly sensing how the marketplace is changing and seizing these changes through dynamic realignment (Harreld et al. 2007). Accordingly, bridging the PTA phase can be considered as a dynamic capability. Not being able to cross the gap, means not being able to realise a return on radical innovation investment. For crossing the bridge, a strong leader is needed like someone who can change tires while the car is still rolling (Tichy and Sherman 1993).

Several case examples, illustrate the need for a change process, in order to cross the bridge. For RiskCo, crossing the bridge was an organisation wide initiative. The strategic intent was clear to all employees, including measurements and incentives. When employees understand the boundaries and the direction, they can contribute more effectively to the opportunities. The new RiskCo leader was instrumental in coaching his team for growth. WoodCo did it differently. Their management team was committed to make a difference. They had stretched goals, but they took the time to find the "right" bridge. On the contrary, the CoreCo story showed, on how not to do it. Their goals were aggressive, but their focus was mainly, on beating the competition and serving existing customers. Across cases, the research indicated that during the early days of preparing and entering the market, the leader of the RCV, should be highly entrepreneurial, adventurous, not be afraid of experimenting and exploring new directions. The vision has to remain intact, but the strategic and tactical movements have to be adopted on an almost real-time basis, taking into consideration, the changing market and competitive environment. Dominant elements of an effective corporate venturing effort appear to include, carrying out a thorough necessity analysis, achieving clarity of objectives and creating the right ambiance (Shah et al. 2008). A RiskCo manager emphasized: *"The RCV leader has to be a great motivator and communicator, willing to take risks and change course. He knows what he wants and he is able to get his team energized. The day the weather is changing into a stable, predictable, clear sky, he starts losing interest. This moment occurs just after the first customers have placed their orders. He has to become another person, being efficiency centric and exploiting the current situation. Very few champions can change or are willing to change. If not, it is time for a replacement*". Therefore, champions are needed to drive the market, change the rules of the game, shape and educate a new market into being. Market driving is about moving beyond conventional thinking and current logic (Kumar 2004a). The key for successful discontinuous market offerings is that, they create and deliver a leap in gain, associated with a low perceived pain (Moore 1999). Or are those champions, chameleons that change as required? Looking back in time, a CoreCo manager considered lack of enough serial entrepreneurial veterans, as one of the key reasons why the RCV failed and was dismantled. RCVs in general, are typically staffed with the brightest and smartest internal high potentials. Gaps in their expertise or experience are assumed to be addressed, as learning by doing. This research suggests that most ventures rely too much, or exclusively on internal company experts. Independent ventures, in contrast, select serial, with proven track record, experienced experts, ready for the battle. A CoreCo manager trying to understand what went wrong said: "*Being brilliant is not enough. In the battlefield there is no time for learning and watching, but for the right and the fastest execution".*

Before moving to the next sections to further describe and discuss them, let us report on some recurring generic comments made and captured during the interviews and discussion sessions.

First, capabilities and dynamic capabilities, do really matter but are hardly understood and hardly leveraged in most organisations. Capabilities essentially can be split between strategic capabilities – that are customer centric and make a distinctive difference towards competitive advantage and more operational capabilities - that are needed to be in the game, without substantially differentiating the company from the competition. Second, the issue is not, not trying. Most organisations really try hard, even too hard, and they dilute their efforts across too many capabilities, resulting in weak outcomes. Successful radical innovation ventures are able to select, master and transform a limited number of capabilities that are customized to their situation, to their DNA and environment.

Third, how do we synchronize the capability mix together? Which elements do we select and how can we make sure the elements are coherent, consistent and congruent together? How do we dynamically readjust and transform them? The research suggests that a change effort is needed. Fourth, migrating from prospecting towards acceleration, appear not to happen abruptly, because the underlying elements change gradually. Instead, there is usually a transformation area, rather than a tipping point that signals a radical shift to come.

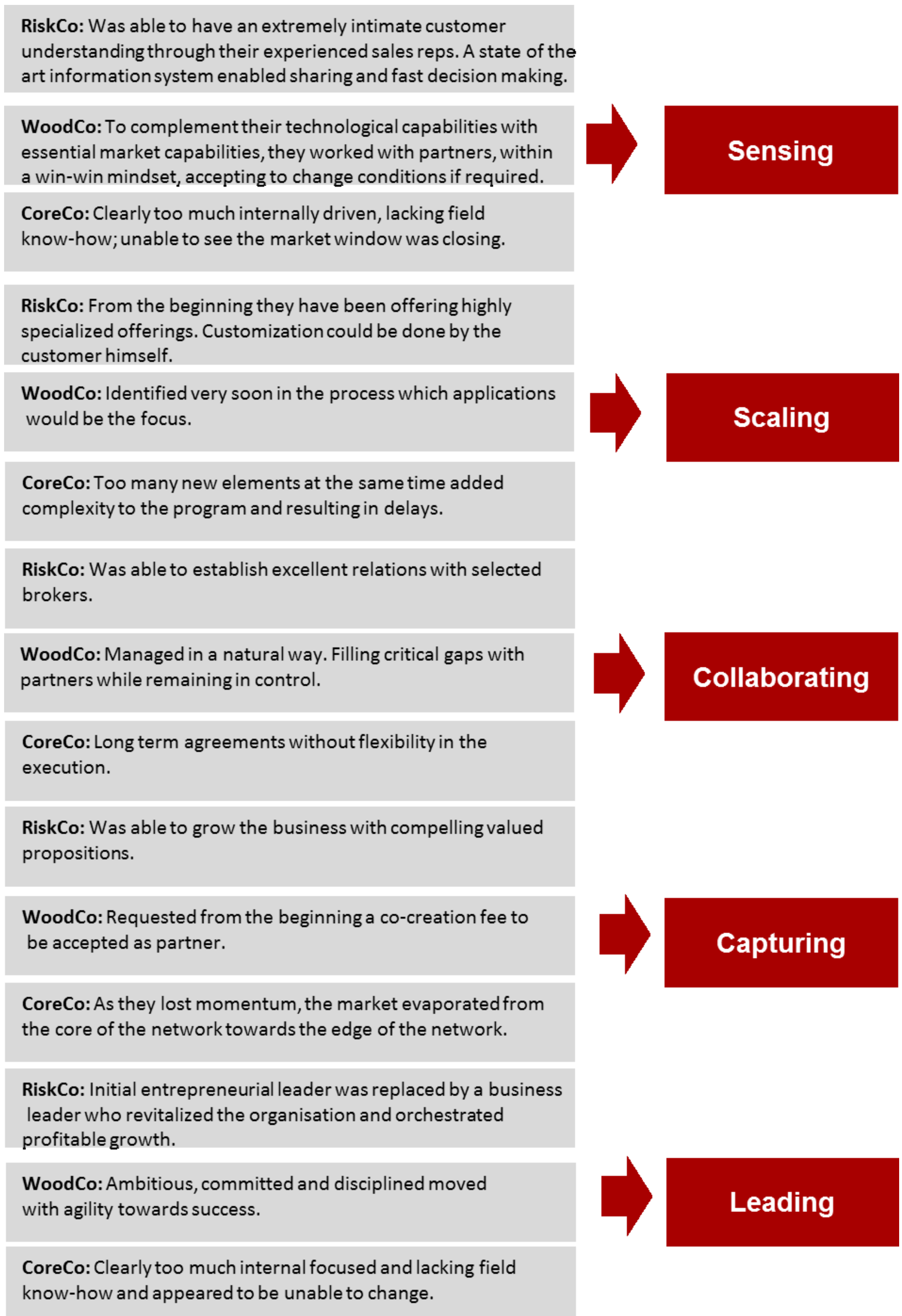
Fifth, most companies were indicating and were referring quite often to solution selling. However, when you dig in the details, you find out, that the way they define solutions is quite different and that many, if not most, still are struggling for making this profitable and satisfactory. The research suggests that a solution strategy has to start from the problem and has to work backwards, towards bundling products with services and propriety knowledge. Practically, this requires a two way interaction, that results in mutual commitments, ranging from the information exchanges, to cross-coordination and even relation-specific investments. Sixth, a key premise of the RBV is, that resource and capability development is a selective and path-dependent process. A choice of a new strategic direction, derived from a new strategic logic must overcome the inertia of this path dependency. However, an entry logic that is built into the mind-set and mental models of managers is difficult to change. The old logic must be combined with the new logic. Overcoming this inertia takes leadership and resource commitment, sustained by a sense of urgency, because of the threat of new or existing competitors, who may be better aligned with the changing customer requirements.

Seventh, when the value creation process involves co-production between vendor and client, the existence of successful, effective collaboration is essential. At the same time, this requires an intimate established relationship, where trust is present. Finally, market and business development has to be a dynamic, evolutionary process, service-centred view that is rooted in the resource advantage theory and relationship marketing. In this view, value is defined by and co-created with the customer. Marketing and sales attention should shift towards this customer centric, market driven approach and should focus on knowledge and operant resources, that provide competitive advantage and strive to maximize customer involvement in developing customized offerings (Vargo and Lush 2004; Verbeke et al. 2010).

By applying the earlier described research methods, this study was able to identify the most distinctive MBD dynamic capabilities. Figure 17, gives an overview for RiskCo, WoodCo and CoreCo on how each of them addressed in their unique way, MBD. Figure 18, compares all six cases, using “Harvey balls” to indicate the impact on outcome. For more details, in the appendix, the tables 6 to 10 analyse in detail the 6 cases.

In figure 17, a first cluster could be identified and related to a sensing dynamic capability. RiskCo was able to have an excellent intimate customer understanding through their experienced local sales reps. Their state of the art information system, enabled sharing and fast decision making. WoodCo could complement their technological capabilities with essential market capabilities; they worked with partners, within a win-win mind-set, accepting to change conditions, if required. However, CoreCo was clearly too much internally driven, lacking field know-how; unable to see that the market window was closing. A second dynamic capability identified, was scaling. RiskCo was from the beginning, offering highly specialized offerings. Customisation could be done by the customer himself. WoodCo also identified very early in the process, which applications needed to be the focus and they expanded their range only over time. However, CoreCo tackled too many new elements at the same time, adding complexity and resulting in frustrations and delays. A third group could be recognised around collaborating DCAPs. RiskCo was able to establish excellent relations with their selected brokers and co-create with their customers, customised offerings. WoodCo was able to fill dynamically critical capability gaps through partners and without losing control over this process. However, CoreCo had a rather “not invented here” and without much flexibility in the execution. Fourth, a next cluster could be labelled capturing DCAPs. RiskCo moved quickly, then lost traction, but got revitalised and was finally able to profitably grow the business. In contrast, WoodCo requested from the beginning a co-creation fee, in order to be accepted as partner. The aim was primarily, only to get committed partners. Unfortunately, CoreCo lost the battle, as the market evaporated and as they were not able to change. A fifth distinctive MBD dynamic capability could be identified related to leading. RiskCo changed for change or more specifically, their initial entrepreneurial leader was replaced by a business leader, who revitalized the organisation and orchestrated profitable growth. WoodCo was ambitious, committed, but disciplined and moved with agility towards success. However, CoreCo appeared to be too much internally focused, lacking field know-how and veterans. Sustainable competitive advantage, according to Reeves and Deimler (2011), no longer arises from positioning or resources. Instead, it is the result of organizational capabilities that foster rapid adaptation. Those are: the ability to read and act on signals of change, the ability to experiment rapidly and frequently, not only with products and services but also with business models, processes and strategies; the ability to manage complex and interconnected systems of multiple stakeholders and the ability to motivate employees and partners (Reeves and Deimler 2011). The research suggests also, that adding too soon, too much sales capacity, is a major issue. According to Leslie and Holloway (2006), due to the time required to educate customers about the new offering and learn them how to use it, the identification and resolution of service issues and the selection of appropriate market positioning takes considerable time (Leslie and Holloway 2006). In other words, the idea of a MBD learning curve can be introduced, which includes the time required for the organisation to familiarise itself with and within the new environment. The longer the MBD learning curve, the greater the revenue gap, that is, the longer it takes to sell effectively (Leslie and Holloway 2006).

Figure 17: Case findings: MBD dynamic capabilities



Next, a cross-case analysis has been conducted. Cross-case analysis is important to enhance generalizability or in other words guarantee the relevance or applicability of the findings to other similar settings. To aid in the comparison of the different cases, “Harvey Balls” have been used to rate the impact of each capability on the outcome. As a preliminary attempt, a high-level estimation of the impact on the outcome of each case has been determined, based on discussions with managers in the second research phase. The assessment is based upon the extent to which those capabilities strengthen and have a positive impact on the outcome of the case. The degree of “impact on the outcome” is expressed in “Harvey Ball” notation on a linear scale from “unfavourable impact on outcome” to “very favourable impact on outcome” and with a median value “neutral impact on outcome”.

◔ Unfavourable impact ◑ Neutral impact ◕ Favourable impact ● Very favourable impact

For example, if a ◔ score is given to the situation, then this would mean this capability would be unfavourable or non-beneficial to the outcome. In contrast, a ● score would indicate it would be very beneficial for favourable to the outcome.

Our fit assessments are based and derived from the in-depth qualitative research with more than 100 managers and experts and need to be further verified by more in-depth and quantitative research. This detailed analysis is beyond the scope of this research project.

In table 4, an overview is given of the results of the across-case analysis, related to the identified distinctive dynamic MBD capabilities. The analysis indicates, that strongly performing RCV’s, master all MBD dynamic capabilities extremely well, whereas the more struggling RCV’s deal with major disabilities. Especially WoodCo, RiskCo and StressCo have been able to capitalize and leverage their MBD dynamic capabilities. On the contrary, SmartCo, BioCo and in particular CoreCo, were not able to build, borrow or acquire the necessary capabilities. The analysis suggests that MBD as a dynamic capability to bridge the ‘Prospecting to Accelerating’ phase is composed of five dominant dynamic MBD capabilities. First: a sensing capability or the ability to identify and anticipate attractive business opportunities while being alert and agile. Second, a scaling capability of the new offerings or the ability to scale overtime with discipline new product service generations and versions. Third, a collaborating capability or the ability to effectively or dynamically leverage relationships, expertise and experience of partners. Fourth, a capturing capability or the ability to deliver competitive value propositions while being able to capture a fair amount of value. Fifth, leading or an ambidextrous leadership capability.

Table 4: MBD dynamic capabilities: Cross-case analysis

MBD Dynamic Capabilities	CoreCo	BioCo	SmartCo	StressCo	WoodCo	RiskCo
Industries	Telecom ICT	Automotive Chemicals	Utilities ICT	Agriculture Chemicals	Wood Chemicals	Financial Services
Sensing attractive opportunities	◔	◑	◕	◕	●	●
Scaling compelling offerings	◔	◔	◑	◕	●	●
Collaborating effectively with stakeholders	◔	◑	◔	●	●	●
Capturing business value	◔	◑	◑	◕	●	●
Leading or ambidextrous leadership	◔	◔	◑	◑	●	●
Outcome	**Did not survive. Stopped.**	**Ended up in freezer. Restarted.**	**Drifting. Tech driven.**	**Modest success story**	**Success story.**	**Success story.**

◔	◑	◕	●
Unfavourable	Neutral	Favourable	Very favourable

This research suggests five key dynamic MBD capabilities impacting a RCV. In the next section, the sensing dynamic capability will be described and discussed.

Sensing Capability

"*Capabilities are the wellspring of new business development*" (p. 90) (Prahalad and Hamel 1990).
Sensing is about identifying attractive new growth opportunities. It is about being in touch with what happens in the market and what happens inside the organisation. It is about anticipating new growth avenues, new opportunities, new challenges, in other words, being alert to what is happening in the environment. Sensing capabilities, determine how well the organisation is equipped, to continuously explore changes in its markets and to anticipate the responses to action (Day 1994; Day 1999; Day 1990; O'Reilly and Tushman 2008).

Sensing never stops and is about identifying customers with real potential and really committed to move ahead with an order. Beyond existing and potential customers, sensing complementors, competitors and the context, like regulation and standardization, is equally important. Sensing is the first step in recognizing value creation opportunities. Sensing requires you constantly scan the environment around you. You do not wait until opportunities come to you. The timing of sensing matters a lot. Sensing the opportunity when it appears on the front page of the Wall Street Journal is easy; sensing is most beneficial when the signal is weak (Terwiesch and Ulrich 2009). Govindarajan and Trimble (2010) argue, that sensing is not only about identifying signals, but that is about amplifying weak signals and with a focus on execution (Govindarajan and Trimble 2010). Sense making is the process through which an organisation acquires, interprets, and acts on information about its environment (Weick 1995). However, the quality and accuracy of that information, the frequency and intensity of capturing, interpreting and acting on that information, appears to play an important role. Day and Schoemaker (2004) argue that if an organisation knows where it needs to look, the most efficient solution is to take a laser beam and focus on that narrow area. As in military reconnaissance, the key is rapid information processing, quick sense making and fast refocusing, all with an open mind and high vigilance (Day and Schoemaker 2004a). Anticipating ahead of time, if and when a new radical promising radical product will be accepted in the market, is extremely difficult. Accepting, requires that customers are willing to buy, install and repeat the buying and the installation. Satisfied customers become loyal and influence new potential customers, which ultimately influences the tipping point to tip. Reflecting on the dismantling of the RCV, a CoreCo manager said *"Our approach for gathering and capturing market insights was inadequate for embryonic markets*". RCVs with a capability to interpret a great amount and variety of information, lead to an increased responsiveness to the environment (Neill et al. 2007). Speed of action, fast decision making and a sense of urgency matter, especially in dynamic situations, but there is a trade-off. Acting quickly, with an agility to respond to or ahead of, or at least to keep pace with, rapid changes in the new economic environment is beneficial. Organizational agility is adaptability plus speed. Discipline towards the chosen strategic intent and logic in the quality of doing, the frequency and intensity in action, are prerequisites. Leaders not only have to articulate the intent and describe the challenges, but also have to establish the organizational discipline. For purposes of gaining organizational traction, "living" the intent is as important, as the identification of opportunities. Ultimately, sense making contributes to a firm's ability to build and sustain a competitive advantage (Day, 1994; Teece, Pisano, & Shuen, 1997) by enhancing the ability to effectively configure and deploy resources, to better respond to a changing environment (Eisenhardt & Martin, 2000) (Neill et al. 2007).

Organisations with a developed sense making capability are better able to communicate (through strategic information exchange), interpret (by simultaneously assimilating multiple environmental dimensions with increased strategic complexity), and analyse (through multiple perspective consideration) a greater amount and variety of information, leading to a greater range of behaviours with which to respond to the environment (Neill et al. 2007). Day has been advocating for many years, that market driven organisations should master their market sensing and customer linking capabilities. Market sensing, determines how well the organisation is equipped, to continuously sense changes in its markets and to anticipate the responses to marketing actions (O'Connor and Rice 2001; O'Connor and Veryzer 2001). Customer-linking capabilities cover the abilities and processes needed to achieve collaborative customer relationships, so individual customer needs are quickly apparent to all functions and well-defined procedures are in place for responding to them. There is no free lunch and a comprehensive change program is required, aimed at creating and enhancing these capabilities (Day 1994; Day 1999; Day 1990). The RiskCo case can illustrate these ideas. RiskCo was able to have an extremely intimate customer understanding through their experienced local sales representatives. A state of the art information system enabled internal sharing of expertise and fast decision making. WoodCo did it differently. In order to complement their technological capabilities with critical marketing capabilities, they worked with partners, within a win-win mind-set accepting to change conditions if required. In contrast, CoreCo, was clearly too much internally focused and was lacking field know-how, and appeared to be unable to see the market window was closing. Conceptually, a sensing capability contributes to an organisation's ability to build and sustain a competitive advantage (Day 1994; Teece et al. 1997) and by enhancing its ability to effectively re-configure and transform resources and processes to better respond to situations of high complexity, uncertainty and an ambiguous and changing environments, sensing can be viewed as a dynamic capability. Moreover, Hamel and Prahalad argue that sensing is anticipating and the strategist's goal is not to find a niche within the existing industry space but to create new space that is uniquely suited to the organisation’s own strengths - space that is off the map (Hamel and Prahalad 1989). Sensing attractive opportunities is great, but a competitive offering is required and this will be addressed in the next section.

Scaling Capability

“Innovation is nonroutine and uncertain“ (p. 15) (Govindarajan and Trimble 2010).

Scaling is about slicing the offer in modular generations and laser beam targeting. Not “all in one” solution. It is about having a competitive and compelling offering that is good enough and customized for the first users and customers. The benefits of the offer should be translated into a customer value proposition, suited or customized for decision making members and units. Scaling is about bundling products, with services and propriety knowledge in different generations over time. Tailoring the offering and the value proposition for the target customers and the different decision making units (DMU) members, has to be synchronised. Beyond the core product, a whole offering (Moore 1999) and elements beyond the 'what' have to be considered (Sawhney et al. 2006; Vargo and Lush 2004) while remaining consistent with the overall strategy and value discipline (Desarbo et al. 2005; Slater and Mohr 2006; Treacy and Wiersema 1995). First mover advantages, disadvantages, launch timing and pace have to be understood, in order to improve the chances of success (Di Benedetto 1999). But essentially, the importance of strategic and tactical commitment and consistency is observed as paramount, including, what, where, when, why, with and how (Hultink et al. 1997). Those questions are always on and facing reality is a must. *"Our first discussions enabled us to better understand the dynamics of the market and this enabled us to increase significantly our negotiation power later on. Important is to be enthusiastic, show passion, but remain with both your feet on the ground. Do not let you and a team dreaming and stay realistic and open to identify what needs to be done*" commented a WoodCo manager. Scaling capabilities and simplicity of the offering is a basic capability, but very often violated. In ambiguous environments, the full range of alternatives and outcomes is not known, leading to many possible directions and evolutionary paths. Experimentation is essential and requires a balancing act that combines opportunism with disciplined planning (Garvin 2004b). The research suggests that scaling the offering is essential to optimize the time to close a deal, the time to tailor the offering and the time for availability of a next version. Scaling facilitates simultaneously a shorter buying cycle and a faster deployment. As an example, StressCo focused solely on one lead customer, before commercializing anti-stress versions across the world. Simplification is an important fast track highway to the market that can provide savings in costs, time and effort. Companies should reduce or eliminate the complexities, including extensive variations to a product or services that the customer may not value or understand. Scaling is about de-risking and modularizing major opportunities (Day et al. 2004). At the time of bridging the prospecting to acceleration phase, an entrepreneurial orientation and market orientation needs to be balanced (Jaworski et al. 2000; Lumpkin and Dess 1996; Matsuno et al. 2002; Narver et al. 2004; Schindehutte et al. 2008). According to Leonard-Barton, the more radical the innovation, the less likely the customer will have relevant experience, ability, or professional knowledge, and the less willing the customer will be to provide accurate knowledge and feedback (Leonard Barton et al. 1994). Customers are unlikely to be able to articulate preferences, if the technology and its possible benefits will be unfamiliar to them. Still, the firm's ability to understand customer needs and match them to emerging technologies is critical to converting the technology into a successful innovation. Radical ventures, only emphasising their technological superiority, go rather empty handed to the battlefield.

However, a scaling dynamic capability in early markets is not enough to succeed. In the next section, the benefits and challenges of effectively collaborating will be discussed.

Collaborating Capability

"Any relationship goes through a life cycle" (p. 128) (Tzokas and Saren 2004).
Due to an offering complexity and chronic volatile markets, RCVs increasingly rely on networks of innovation partners. A shift from "know-how" to "know-who" is fostering speed and risk-sharing. However, how effectively these partners work together, ultimately determines market and business success. Several organisations are capitalising on this trend and are seeking to transform the way they connect, co-create, co-develop, co-innovate, communicate and collaborate across interconnected networks of stakeholders.

To increase the odds of success, RCVs need to understand why and how to collaborate with insiders and outsiders. Engaging "outsiders", has the benefit of adding complementary capabilities, challenging existing assumptions and stretching the RCV boundaries (von Stamm 2004). Prahalad and Krishnan (2008) even state that the biggest winners in the 21st century business will be those that are able to assemble a global ecosystem of partners, emphasising flexible access to products, talents, and expertise, not ownership" (Prahalad and Krishnan 2008). Yves Doz and Gary Hamel confirm the value of partnering, but claim that 80% of all partnerships fail to deliver value. Success is in reach, if the partnerships are balanced with mutual trust and complementary contributions (Doz and Hamel 1998). As an example, WoodCo continuously has been filling missing critical capabilities to complement its business model and been able to leverage superior capabilities of its partners. When a SmartCo executive was asked during a follow-up interview what he would do differently, if he could, his answer was straightforward: "*If I could go back in time, I would definitely evaluate, select and develop much faster strategic partnerships, be much more decisive, not leaving open too many options, but decide with a sense of urgency, to effectively collaborate. It is an on-going process of re-considering and re-evaluation, as the market environment constantly changes"*. Essentially, a partnership is a formal and critical relationship between two or more organisations, to pursue a set of agreed upon goals, share capabilities and this while remaining independent (Frey et al. 2006). A partnership becomes collaborative, when the two partners effectively work together. A collaboration is strategic, when the working together leads to a sustainable competitive advantage; remains operational, when the purpose is to fill a short term gap. Screening capabilities, which assess fit and attractiveness of existing and new partners, should be an on-going business activity. BioCo assessed extensively their go-to-market partners*: "We spent a lot of time analysing, verifying and discussing, before engaging into a relationship with a partner"*. SmartCo confirmed the need for filtering potential customers, before addressing them and tailoring an offer: *"The issue is essentially about prioritization, who to address, who not. You cannot shoot at all moving targets. Our venture is resource constraint and we have to be extremely selective because every customer requires an amount of customisation"*. The value of collaborating lies in entering new markets, increasing the size of the market, hedging market and technology risks. Very often organisations jump into relationships, without considering their structure and organizing principles. A collaborative architecture encompasses an array of choices and complex trade-offs, that are to be made (Pisano and Verganti 2008b). Therefore, before starting a collaboration, understand the goals, the type and the complexities (Prahalad and Ramaswami 2001). Selecting the right partners is hard work and cannot be done overnight. The study indicates that, before engaging into a collaboration, much more rigour is needed for this process and more time has to be allocated, to know what (strategy first), why and how to optimize the value equation. As an example, BioCo evaluated extensively potential partners and verified complementarities and ‘chemistries’ from various angles, before engaging into a collaborative partnership. RCVs should realise that there are different types of collaborations with possibly, a changing scope over time. Pisano and Verganti (2008), advocate to select the right type of collaboration according to openness and decision making criteria (Pisano and Verganti 2008a). With strategic partnerships, RCVs need a more collaborative approach, aligned with the overall strategy and focused on the longer term. In the case of tactical relationships, those fill short term gaps; can drive down cost for non-mission critical activities. For those relationships that continue, a shared sense of engagement and interdependence, a tightening of effective collaboration, can help companies manage demand volatility and risk, and enable innovative new business models. For example, BioCo capitalized on its partnership to penetrate a new sector, reducing risks and was able to establish its commercialisation much more quickly together with their market partner. In another relational and partnering strategy, StressCo has been able to engage and keep motivated their customers, distributors, engineering and sales forces. Sharing capabilities is about effectively “walking the talk” and exchange. A WoodCo manager clarified: “*The Dutch firm was initially of interest to us for their equipment for testing our samples and testing product and process parameters. But we discovered with them the importance of the supply chain. They had also market knowledge, access and the Dutch market appeared more open and earlier ready for our applications*”. Realising where the value chain partner adds value is only step one, because strategic fit needs to be complemented with a cultural fit and in order for the partnership to be beneficial, investments on both sides have to be made and mutually benefits realised (Spence et al. 2008). In the StressCo RCV, one manager confirmed the importance to intimately collaborate: “*The alignment between active believers, the customer, our local champion and product management consistently over time was the determining factor”*. As observed in the CoreCo RCV, failure of collaboration may be rooted, by lack of understanding of each other’s roles and responsibilities, poor communication, conflicting chemistry, divergent expectations and interests. When markets are dynamic, then agility matters most and organisations need few collaborative connections, in order to be able to adopt quickly (Eisenhardt and Galunic 2000). According to Ken Le Meunier, there is considerable evidence to indicate, that improvements in collaborative behaviour between sales and marketing, can have benefits and lead to an enhanced business performance (Le Meunier-FitzHugh and Piercy 2007). However, the neglected relationship between marketing and sales need to be optimised (Matthyssens and Johnston 2006). A strong motivation to work closely together is present, if partners have a lot at stake and have a very strong incentive to succeed together. However, any relationship goes through a life cycle (Tzokas and Saren 2004). Indeed, relationships at different stages present unique requirements for skills and opportunities for new knowledge creation. But over the life cycle, contextual factors generally change and require an intervention. As an example, WoodCo initially spearheaded an eco-system of technology research partnerships, which were stopped and replaced by technology development and feasibility partnerships. Ultimately, WoodCo was able to penetrate the market across Europe, while capitalising on a partnering strategy and through a new business model, while relying extensively on market partners. Firms, who want to continually achieve synergies, must be capable of co-evolving and shifting their web of relationships, to exploit fresh opportunities and dropping deteriorating ones (Eisenhardt and Galunic 2000). Collaboration generates opportunities in an era of crisis. The more firms engage in a variety of different inter-organizational collaborations, the more likely they are to create new products that are commercially successful. Firms that possess a heterogeneous network of collaborative partners within the framework of their innovation strategies, perform better (Faems et al. 2005). However, having an eco-system of strategic partners (Gummesson 2008) is worthless, if you do not select the right ones and effectively collaborate, while avoiding paranoia. Moreover, Roberts and Liu (2001) indicate, that the right strategic partnership, for the right stage, at the right time, is needed (Roberts and Liu 2001). Ultimately, the winner is alert, agile and dynamically adapting his collaboration portfolio. Collaboration has become a “catalysator” among capabilities. However, Eisenhardt and Galunic (2000) claim that when markets become dynamic and agility matters most, organisations need less cooperative connections (Eisenhardt and Galunic 1999).

An effective alignment of marketing and sales is a critical factor in improving the effectiveness of a RCV. Primarily benefits of a more effective sales and marketing model include better synchronised go-to-market campaigns, consistent and coherent positioning and messaging, more strategically focused sales campaigns, laser-beam customer acquisition approaches, and improved venture satisfaction levels (Kotler et al. 2006; Kumar 2004b; LaPlaca 2008; Leslie and Holloway 2006; Meldrum 1995). Marketing and sales should drive the top and the bottom line of the venture. Going too broad too fast, is a killer approach for radical ventures (Leslie and Holloway 2006). The extant literature suggests that the relationship between sales and marketing does not always operate efficiently or effectively and that their actions are not always well coordinated or collaborative. This lack of collaboration may be caused by lack of understanding of each other's roles, role ambiguity, poor communication, a culture of blame, different perspectives and poor alignment of activities and goals (Kotler et al. 2006). There is considerable evidence, to indicate that improvements in collaborative behaviour between sales and marketing, can have benefits in enhanced business performance (Le Meunier-FitzHugh and Piercy 2007). Building and sustaining relationships is critical (Hunt 2000), while sharing of information and trust is important. Basically, we can identify five levels of collaborations, with associated characteristics (Frey et al. 2006). We can consider a spectrum, starting with networking, cooperation, coordination, coalition and finally collaboration. Networking is situated at the lowest level, with limited communication and where all decisions are made independently. Next, cooperation which typically has better defined roles and relies on more formal communication. Then, the coordination level, which includes clearly defined roles and some share decisions making. Next, the coalition level, with frequent communications and where all members, have a vote in the decision making process. Finally, the collaboration level, where members belong to one system, with frequent communications, trust among members and where consensus is reached on all decisions. Some additional examples to conclude this section. RiskCo was able to establish excellent relations with selected brokers, while WoodCo managed in a natural way filling critical gaps while remaining in control, but CoreCo was frozen without flexibility in the execution.

To summarise: effectively collaborating, analysed through a dynamic capabilities lens, brought some more clarity to the puzzle, on how to leverage dynamically inter and intra organizational collaborations. In the next section, business related capabilities, for capturing and seizing value will be covered.

Capturing Capability

"Making innovations happen; from imagination to impact"(p. 23) (Govindarajan and Trimble 2010).

A key factor for success is bringing the right offering to the market and at the right time. Unfortunately, no RCV can get it 100% right the first time. Predicting the future is near impossible and the devil is in the execution detail. Therefore adjusting, responding quickly and an ability to change direction, appeared to be useful.

Most RCVs demonstrate, that there is not a lack of opportunities, but rather dilemmas like, do we stick with our existing customers, helping them finding and deploying together a new radical value offer; or do we focus on new emerging customers, that attack our existing customers and are much more smaller, but are going faster; or do we try to serve both, which of course will generate conflicts of interest, as a CoreCo manager explained. Capturing is about making the right decisions and executing with discipline (Harreld et al. 2007). A brilliant strategy is worthless, unless it is implemented and strategic initiatives are of no use, unless they are effectively implemented (Gadiesh and Gilbert 2001). Day warns for avoiding risky projects, because they can strangle growth and he recommends to pursue a systematic process to evaluate individual projects with iron commitment (Day 2007). Externally, the market window, the realness and durability of the opportunity have to be evaluated. But also internally, several questions need to be addressed, like for example, how rapidly should the business be expanded? (Garvin 2004b). Most RCVs at this stage, are internally struggling to get extra resources, because growth consumes resources. It is externally and internally an uphill battle. Surviving is like the crossing of a desert of dead (Grove 1998) and requires refocusing from testimonials towards repeat business customers, to become less explorative and more exploitative oriented. Ambidexterity is an avenue to take

(Birkinshaw and Gibson 2004a; Gibson and Birkinshaw 2004), while exploring and exploiting and this with a dynamic balance between the two. It is also a matter of balancing equilibrium, creating and capturing value, "both-and" instead of "either-or". What will be measured will be improved goes the popular saying or measurements drive management decisions and actions (Govindarajan and Trimble 2005c). Monitoring the RCV with specific metrics is a prerequisite. All too often the RCV is viewed and evaluated as "business as usual". The metrics have to be different than typical measurements for stable strategic business units and metrics need to change over time. The mandate has to be clear, while simultaneously accepting a high degree of direction and adaptability. Ginsberg and Hay (1994) argue that a major rule for a RCV is to under-promise and to over-deliver (Ginsberg and Hay 1994). Project-based milestones, like IBM used for its emerging businesses, could include: marketplace acceptance, external perception, ecosystem development and internal execution metrics (Garvin 2004a). Understanding what the customer really values, identifying value drain functionalities and activities is a two-directional effort (Anderson and Narus 1998; Anderson et al. 2006). Monitoring "trigger point" events to identify "moments of truth" or "inflection points" to accelerate, to allocate resources or make real-time adjustments to changing windows of opportunity is needed. In practice, a stage gate between the prospecting and the accelerating phase, could be established, like during the NPD process (Hart et al. 2003). Capturing is also about getting the time to close (TTC) and order to delivery (OTD) under control; to keep promises and is about pursuing repeat business. RiskCo got it right from the beginning, employees were highly experienced, had excellent customer contacts. New employees brought with them customer contacts, which were generating immediately revenues. At the same time, the CEO was able to get the attention from potential customers. He knew the industry, he knew how the industry was thinking and acting. He was a visionary. However, success changed the visionary leader, as he lost interest and attention. Moreover, the most successful radical innovation programs are driven by a compelling, committed, consistent, clear strategic intent, while the less successful begin with unfocused fuzzy ideas. Intent is like "true north"– a constant reference point for checking where you are and marking the direction that you wish to go (Gadiesh and Gilbert 2001). The root cause of an innovator's dilemma - the tyranny of the served market and core rigidities - has to be addressed by augmenting the organizational capabilities towards mainstream customers (Christensen and Overdorf 2000; Christensen and Raynor 2003; Moore 1999; Slater and Mohr 2006). Finally, a dynamic capturing capability makes sure the organisation is operationally in line with the market. Applying the congruency principle means, that it is impossible to design a universal and single best strategy, applicable to all possible situations. In order words, customer value creation occurs through customer alignment (Gosselin and Bauwen 2006). In practical terms, that means to select, which customer you want, followed by effectively and flexibly fulfilling demand. This requires also, that the customer care services, the supply chain and the logistics have to be synchronised with the promised value proposition. Value based pricing can facilitate a smooth adoption, but many are struggling with the implementation. A SmartCo manager indicated this market driven pricing approach as conceptually “a must practice”, but recognized they were still frequently experimenting with integrating strategic and tactical pricing schemes. He even linked the expectations and experiences along all touch points into one equation and indicated the order to delivery process as key to success. As indicated by Di Benedetto (1999), logistics plays a key role in successful strategy development and should receive the requisite amount of managerial attention (Di Benedetto 1999). In addition, the ability to effectively solve problems at the customer premise and preparing the next product generations and versions is a prerequisite. The emphasis has to be execution, not creativity (Govindarajan and Trimble 2005a). At this stage a critical metric is “promises kept” and relates to on time delivery, meeting and exceeding performance and reliability. How effective are your delivery processes? But also, if an issue comes to the surface - and there will be - can the early customers reach you conveniently? In other words, are you able to solve questions and issues fast? If you can, gossip will go around in the industry that you are a trusted supplier. A strategic customer management approach takes the buyer/seller dyadic relationship as central (Hui Shi et al. 2004) and requires to leverage intelligence, to manage the interfaces and to integrate those processes necessary to deliver superior value (Lane and Piercy 2004). Empirical research has been looking mainly at strategic customer or account management for on-going business, which has been painful (Yip and Bink 2007) is more complex than most companies believe (Ryals and Rogers 2006; Senn 2006; Spencer 1999; Zupancic 2008). Customer selection and alignment (Gosselin and Bauwen 2006) and leveraging customer knowledge (Salojärvi et al. 2010) are prerequisites. However, a company's relationship portfolio, also comprises key relationships with other types of actors (Ivens et al. 2009) and with boundary spanning functions (Piercy 2009). Adaptive selling favours demanding business development roles (Millman and Wilson 1995) and a collaborative customer orientation (Hui Shi et al. 2004) while recognizing the heterogeneity of strategic customer relationship typologies (Storbacka and Hanken 2009). Intense collaboration between sales and marketing is essential (LaPlaca 2008; Le Meunier - FitzHugh and Piercy 2007). Setting shared revenue targets and reward systems can help but is not easy. Sales and marketing should share responsibility for targeting, positioning and revenue objectives (Kotler et al. 2006).

A MBD dynamic capturing capability is about making the right decisions, executing with discipline and making sure the organisation is operationally in line with the market. In the next section, the prerequisites for leadership will be covered.

Leading Capability

"People who lead frequently bear scars from their efforts to bring about adaptive change. Often they are silenced. On occasion they are killed"(p.19) (Foster and Kaplan 2001).

In the previous chapter a finding was, that in order to evolve from experimenting and trials towards repeat business, the organisation had to migrate from an explorative towards an exploitative orientation. It is a difficult moment in time. Transition periods are always difficult to predict. In the previous chapter, the difficulties for forecasting the diffusion and the adoption in industrial settings have been discussed. To keep it practical and simple, a key metric was the transition from trials towards repeat orders.

A major question was: who in the RCV is supposed to be in the driving seat? Organisations which foster constructive conflict among their people, will be in the best position to align with a continuously changing business environment (Kets De Vries and Balazs 1998). Foster and Kaplan (2001) talk about three skills that can be helpful: conversation, observation, and reflection and they argue that people who lead frequently bear scars from their efforts to bring about adaptive change. Often they are silenced. On occasion, they are killed (Foster and Kaplan 2001). Leaders that can enable and stimulate strategic and constructive dialogues across the RCV can create an early warning system of the need for change. Successful strategy emerges from a decision process in which leaders develop collective intuition, accelerate constructive conflict, maintain decision pacing and avoid politics (Eisenhardt 1999). However, shaping strategies can fail, so the best leaders, supplement their shaping beds, with options that let them change course quickly (Courtney et al. 1997).

Moreover, the dilemma between exploitation and exploration has been on the research agenda since many years (Levinthal & March, 1993; March, 1991). A major issue for bridging the transition zone requires complex interactions. In the past it was recommended, that a large organisation could remain focused on exploitation, while the radical venture was focused on exploration (Burgelman 1983b; Christensen 1997; Markides 2008). However, the reality appears to be more complex. For succeeding, a dynamic ambidexterity is required during the transition zone. First, the RCV has to progressively become less exploratory and more exploitative during the migration phase. This means migrating from experimenting and evangelizing towards strategic selling. Second, in order to fully leverage business growth, the RCV has to become increasingly and mainly exploitative in nature. In other words, closing repeat orders and keeping promises becomes essential. Third, the RCV has to continue to explore and continue to experiment and evangelize, even if the first growth area has been reached, because of other emerging markets have to be addressed. Basically, the research findings indicate a major paradox: the RCV's are set up to essentially be explorer units, but in order to bridge the 'Prospecting to Accelerating' phase, they have to become more exploitative. This duality represents major challenges. Succeeding requires to transform and change from one state to the other, but to make it even more complex, the RCV has to remain excellent at further exploring new markets and at the same time exploiting developing markets. This is confirmed by the research of Birkinshaw and Gibson (2004) who demonstrated that ambidextrous organisations, which are simultaneously adaptive and aligned, obtain superior performance (Birkinshaw and Gibson 2004b; Gibson and Birkinshaw 2004). An organisation capable of mastering the balance between opposite capabilities is generally known as an ambidextrous organisation (O'Reilly and Tushman 2008). Going and steering through such transformation and change process is difficult. Beer and Nohria (2000) argue that change is difficult to pull off. The fact is that about 70% of all change initiatives fail. The reason for most of those failures is that in their rush to change, managers end up immersing themselves with too many initiatives. They lose focus and get frustrated (Beer and Nohria 2000). Essentially, change processes go through a series of phases that in total usually require a considerable length of time. Skipping steps creates only the illusion of speed and never produces a satisfying result. Critical mistakes in any of the phases can have a devastating impact, resulting in a slowing momentum. Kotter (1995) warns that most major change initiatives struggle and many fail miserably. Many managers do not realise transformation is a process, not an event. And it takes time. But shortcuts never work (Kotter 1995). Furthermore, Kotter (2007) outlines eight critical success factors, from establishing a sense of urgency, to creating short-term wins, to changing the culture (Kotter 2007a). For radical leaders, their commitments should be firm, but their means should be flexible. Rather than pressing their agendas, they should start conversations with stakeholders. Evolutionary change through endless changes, without revolution, appears to be a winning and practical approach (Kotter 1995). However, very few RCV leaders are great in those different environments. Very frequently, at those “inflection point” moments, a new leader has to take the lead. The research findings suggest that winning organisations are able to mobilize, transform and energize their teams, to make it happen. Discipline towards the chosen strategic intent, being consistent and an intensity in action, can make a difference (Govindarajan and Trimble 2005a; Govindarajan and Trimble 2010). According to Kotter (1995), leaders not only have to articulate the intent and describe the challenges, creating a shared needs to change, mobilizing strong commitment to make it happen, but also have to establish the organizational discipline. The leader has to make sure, that the management practices are used to complement and reinforce change. Creating shared needs produces a wake-up call for building early momentum for the change initiative. For purposes of gaining organizational traction, “living” the intent is as important as the identification of opportunities (Kotter 1995). Furthermore, Abrahamson (2000) introduces the concept of dynamic stability. At its essence, dynamic stability is a process of constant, but relatively small change efforts, that involve the reconfiguration of existing processes, rather than the creation of new ones. Dynamic stability requires pacing or the ability for big and small changes, to be implemented at the right intervals (Abrahamson 2000). Ohmae (1989) confirms that in an age when success depends on staying close to customers, successful organisations spent time in conversation, in close touch, with what is going on in the marketplace and act (Ohmae 1989).

Conclusions

In this chapter, the research findings confirmed that capabilities are important, but it is the way they work together, that is also distinctive and competitively differentiating. Part of the competitive advantage, lies in what organisations are great at doing. They succeed because they master a selective number of unique distinctive value building blocks. Each of these capabilities is important, but is the way they fit together, that generates differentiation and competitive advantage. For CoreCo, each of their disabilities was problematic. They failed, because they did not master a selective number of unique distinctive value building blocks. The research confirmed that many factors influence the success or failure of a RCV. Even if the right strategy is selected, it can be replicated. However, agile and faster execution makes it much more difficult. But, are organisations good at making the right choices? In this research project, the emphasis was on strategic capabilities and dynamic capabilities as key drivers and ingredients of success. They are not the only factor, but they are key enablers towards success. Dominant organizational capabilities are challenging and underestimated keys to success. They are typically difficult to uncover, identify, define, manage and monitor. The research results imply that a RCV does not necessarily have to strive for “world class excellence” in all capabilities, but should focus on the quality of those capabilities, that provide the most leverage for enhancing impact. Every RCV has its own DNA and strategic logic, and these will ultimately determine which capabilities are critical.

A major finding of this research is a paradox. Most companies do not realise the critical moment of truth they have to face, when bridging the ‘Prospecting to Accelerating’ phase. Most ignore the issue. Just at a critical moment of immense changes and tensions, they are moving towards a conventional commercial approach. However, at this very moment, an orchestrated transformation and change process is essential. The analysis indicates that bridging the ‘Prospecting to Accelerating’ phase can be viewed as a dynamic MBD capability which is composed of five dominant MBD dynamic capabilities. First: a sensing DCAP or the ability to identify and anticipate attractive business opportunities while being alert and agile. Second: a scaling DCAP of the new offerings or the ability to scale overtime with discipline new product service generations and versions. Third: a collaborating DCAP or the ability to effectively or dynamically leverage relationships, expertise and experience of partners. Fourth: a capturing DCAP or the ability to deliver competitive value propositions while being able to capture a fair amount of value. Fifth: a leading DCAP or the ability to combine conflicting transformational leadership disciplines. In the next chapter, a MBD framework will be established as a valuable tool, helping RCVs navigate during their adventure.

CHAPTER 8: MBD LEAD FRAMEWORK

Introduction

The increasing complexity of the business environment, within and across organisations, calls for a systematic approach to address the early commercialisation challenges. A systematic attempt to provide a logical assessment process can be facilitated by using guiding frameworks. Frameworks are cornerstones of market and business analysis, because they offer a simplified description of complex situations. Frameworks can streamline the decision making process by providing users, with a common view on how to frame problems, by formulating guiding questions, by establishing generic processes to identify alternative avenues and offer a shared vocabulary for discussing the issues.

In this chapter, key success elements will be identified, analysed and discussed. A framework could be a valuable tool helping RCVs navigate during their adventure. First, the research data will be analysed, then findings will be determined and discussed. Finally, a MBD framework will be described, that offers a systematic approach for developing and evaluating critical aspects of an organisation's early commercialisation.

LEAD OFFERINGS.

Essentially, the first users want from a leading supplier a state-of-the-art compelling offering. WoodCo was a technological driven project. However, the WoodCo managers realised early on, that to succeed; they would need to expand the core product with compelling services and build an attractive business model. Moreover, operating with a laser beam appeared to be positive but difficult to execute as a WoodCo manager formulated: *"We stayed focused on a couple of applications over time"*, and he continued: *"We had a strong value proposition with unique competitive advantages, basically a strong product and a simple process"*. RiskCo did their homework and fully understood the real needs and the customer frustrations before they entered the market. Industrial companies lacked a compelling offering and during an interview a comment was: *"For industrial companies, inter-company credit was a major risk and credit managers liked a customized insurance that protected their balance sheet against non-payment. We delivered an original solution of risk protection relying on the insured's self-management, who himself determined the parameters of his insurance policy*". They were able to bundle a unique customized offering, starting from the client needs. The entrepreneurial CEO expressed his mantra as: *"Succéder ne signifie pas imiter, mais porter le flambeau plus haut, plus vite et parfois autrement",* he added: *"The uniqueness of us, was to concentrate and only offer a specialized service package. We created a venture that knew how to deal with risks and developed a winning business model"* and a colleague stated: *"The real advantages and benefits go beyond what we claim in our brochures. We offer more than we officially claim*".

During the research investigations, it was mentioned several times, that not only the product quality had to be watched, but that also the order to delivery process was an important success factor. However, a WoodCo manager warned for over-enthusiasm: *"Be enthusiastic, show passion, but remain with both your feet on the ground. Stay realistic to identify what needs to be done"* and a SmartCo manager clarified about correct pricing and keeping promises and stated*: "A market driven pricing approach is conceptually 'a must practice' but we are struggling with integrating strategic and tactical pricing schemes"*. CoreCo wanted to leapfrog the competition with an "all in one" router. The product specifications called for new components and new subsystems which appeared to be too much to digest. Moreover, a manager stated: *"CoreCo was lacking internet technology expertise and was too far removed from the market to notice the market was shifting and drifting in another direction. The attention was too much focused on conversations with existing customers"*. In contrast, WoodCo did it differently and surprised the market with its compelling proposition. They scaled the offering and remained disciplined over time. A comment was: *"We were very closely connected to the market, even if the market and customers were new. We went to the market, spent time in the market, went through a learning curve and established several learning partnerships over time"*.

To summarise, the analysis indicated that lead offerings can be an important lead factor. A lead offering is a compelling bundle of the 'core' product with services and proprietary knowledge that makes it hard for competitors to provide a comparable offering, as effectively and as efficiently. Over time new generations and versions are added.

LEAD USERS

The research indicated that early on, RCV's involve and try to build relationships with trendsetting early users. Ideally, those initial users are willing to share their insights with suppliers who are committed and leading the way forward. This involves and requires relationships across organisations and departments. To illustrate: StressCo capitalized on an entrepreneurial farmer, who teamed up with an innovative distributor and a sales representative: *"Our sales rep pushed us for several years ahead. He had identified a value add distributor and a maverick farmer in the middle east, who was keen to increase the output of dry land under sever climatic conditions*". Typically, early lead users are knowledge or technology centric and are involved during the development process. Lead users during the prospecting phase are generally the techies you need to convince first, to prove the concept. You need them on your side, especially the opinion leaders in the industry. Building a bridge towards them can add a lot of value to your readiness, as a WoodCo manager formulated: "*Our first discussions enabled us to better understand the market and enabled us to increase our negotiation power later on. Important is to be enthusiastic, show passion, but remain with both your feet on the ground and not over-commit. Stay realistic and open to identify what needs to be done"*. However, lead users might show you the wrong way. The discussions are initially technical and might not be supported and continued by business leaders. A SmartCo manager realised the complexity for building an infrastructure together with other suppliers and stated: *"Several utility companies wanted to verify and were looking for a proof. Their technical departments were keen to test and give us feedback on what exactly they needed and what we had to change to keep them happy. We learned that: as long as you have not elevated the discussion to a higher level of business talk, you remain in the technical doldrums"*. Important to realise is that early on, operational prerequisites need to be identified and that a laser beam approach is essential as phrased by a StressCo manager: *"In our industry it takes several years to go through the cycle of development and proving that a new innovative product generates the searched for yield for the farmer. We focused all our initial commercial attention on one committed innovative lead distributor and lead farmer who believed we could succeed"*. RiskCo did their homework before they entered the market. They had a clear aggressive plan of execution. They had identified from the beginning a number of lead users, that later on were willing to testify and publically express the satisfaction level with RiskCo. The CEO was a great leader: *"We started in our home country and at launch, we knew what to do, where to go, we knew there were customers who would engage with us. They had been neglected by all large financial groups avoiding risk taking*". Targeting is a serious challenge in a new market. It is critical to have direct contacts with potential early users as a WoodCo manager said: *"This adventure was initially technical driven and it was not obvious to find early lead users in a very conservative market; it took us several years"*. In reality, a major challenge is to identify who to involve and engage as a lead user. A WoodCo manager expressed strongly: *"You need to be disciplined not to fall in a trap. Every lead user has own requirements and you cannot follow all of them. To be avoided is to collect feedback, say you will change it and you disappear for the next 4 to 5 months without contact and leaving him in the dark"*. Involving lead users requires also that you have a lead offering and that you are able to remain in the lead, as one CoreCo manager was expressing: *"Our aim was to leapfrog the competition with the best core router. Three trendsetting service providers where close to us during the new product development process and during launch, but during the battle we were unable to remain in the lead; we lost the lead and lead user service providers and lead suppliers lost interest and dumped us"*. To summarise, the above analysis indicated that lead users can be an important lead factor. Lead users can be defined, as early product and service users, who experience strong needs for a given new product and service earlier than the majority of the target market. Lead users have a high motivation toward new knowledge, intensive offerings and are embedded into a very supportive environment.

LEAD CUSTOMERS.

Ultimately, the aim is to identify lead customers with real interest beyond the technology. In other words, trendsetting customers, having a vision and the strategic intent and the willingness to invest, have to be targeted. During the early commercialisation phase, many uncertainties have to be dealt with. A major but extremely difficult decision is to identify and to select the initial target customers. Trying to serve from the beginning many customers, is a frequently noticed approach. However, each customer has their own specific needs and addressing them simultaneously could slow down market entry, as a SmartCo manager said: *"The issue is essentially about prioritization, who to address, who not. You cannot shoot at all moving targets. Our venture is resource constraint and we have to be extremely selective because every customer requires an amount of customisation"*. RiskCo was extremely good at hiring new associates, who knew the market and were known in the market. The CEO said very proudly: *"We were able to create a team with highly-specialized credible experts in credit insurance. The new associates knew the sector and the decision makers with their clients"*. This was confirmed by a WoodCo manager, who steered his organisation slowly but steadily, combining market and technological insights: *"Most radical ventures only emphasize their technological superiority and go rather naked to the battlefield. It is important to expand the offering with product related services, customized knowledge and unique business model elements"*. CoreCo however was too much an internally driven RCV and not enough connected with and in the market. One manager recalled: *"CoreCo should have changed the rules of the game inside and in the market, by leapfrogging the competition. However, we remained too close to our existing customers"* and *"We had limited direct connections with key decision-makers and were too far removed from the battlefield, while smart competitors were very intimate with trend setting customers"*. RiskCo was allowed to use customer references publicly. This was not easy. The fact that large organisations were joining was very important and confirmed their uniqueness. A manager claimed: *In the beginning, it is very important to establish credibility with some big names and use those to get follow-on customers"* and a WoodCo manager added: *"Selectively targeting initial customers is essential. You cannot serve too many customers at once. First customers require a lot of nurturing, handholding and customisation"*. A SmartCo manager summarised the early market challenges: *"It's a paradox, do we stick with our existing customers helping them deploying the technology and finding together a new value position value chain or do we focus on new emerging customers, that attack our existing customers and are much more smaller but are going faster or do we try to serve both, which of course will give a conflict and also conflicts of interest"*.

To summarise, the above analysis indicated, that lead customers can be an important lead factor. Lead customers are early adopters willing to pay the price and they want an offering that fits their specific problem. It is essential from the beginning to demonstrate you have a competitive and compelling offering and to demonstrate you are able to persuade and prove and that you need a fair amount of value for the delivered offerings.

LEAD MARKETS

The early commercialisation phase is characterised by extremely high levels of fear, uncertainty, doubt and the need for accepting high risks. Initially the external conditions are volatile and calls for being alert and agile, as a SmartCo manager said: *"Being effective is an on-going process of re-considering and re-evaluation, as the market environment constantly changes"*. In reality, dealing with those turbulent dynamics and acting upon them is for the very few. SmartCo was keen to capitalise on the growing "sustainability" smart grid market opportunities but entered a new unknown market. CoreCo was attracted to a new multimedia infrastructure and the requests for reliable routing systems. However, they were unable to follow the market evolution and were too far removed from the real battle. A CoreCo manager realised this by saying: *"Our approach for capturing market insights was inadequate for embryonic markets*". *"Face reality and control your own destiny"* was a famous quote of Jack Welch, former chairman and CEO of GE (p. 12) (Tichy and Sherman 1993). In other words, it requires offensive strategies and determination, as RiskCo was able to do and as a RiskCo formulated: *"Offensive marketing and sales campaigns created awareness and brand image for specialized solutions and services that were co-created with customers. At the same a network of leading brokers was established, offering them a unique value proposition and enabled them to make good money"*. Being alert and able to act with flexibility is not easy. Especially in larger RCV's who are too large and who keep focussing on agreed upon business plans of the past. Ignoring changing market conditions leads to trouble as a CoreCo manager realised: *"We were too myopic on the core of the network ignoring that the window of opportunity was closing in the market and was migrating towards the edge of the network"*. In contrast WoodCo spend a lot of time directly and indirectly in the market. Their "sustainable" solution came at an ideal moment, as governments across the globe were pushing for sustainable biomass based solutions: *"We were actively present in the market talking to as many knowledge organisations and influential experts as possible. However, we were modest in communicating with the market players with the aim of not overcommitting and for staying under the radar of potential competitors"*. The entrepreneurial CEO of RiskCo had identified a neglected market lead segment and a RiskCo manager told: *"He knew the market, he knew how the industry was thinking and acting. He was a visionary. However, success changed the visionary leader as he lost interest and attention"* and he continued by saying: *"We were able to create a team with highly-specialized credible experts in credit insurance. Our new associates knew the sector and the decision makers in the industrial companies"*. Several managers mentioned that despite substantial R&D investments in eHealth had been made, that most eHealth innovation initiatives had not been able to cross the "valley": *"The take-up of technical and organizational solutions is often hindered by a strong fragmentation of the market, e.g. due to different social security systems and a lack of interoperability. This prevents economies of scale. This hampers the product take-up and business investments"*.

To summarise, the above analysis indicated that lead markets can be an important lead factor. Lead markets are high growth potential sectors, regions, countries or new spaces where public authorities and regulators could facilitate and stimulate industry-led innovation by removing certain barriers, setting standards, improving procurement rules or providing support.

LEAD PARTNERS.

Relationships have emerged as dominant requirements in business. It concerns dyadic and multilateral relationships, as well as a network of relationships. A StressCo manager stated: "*Clearly, close collaboration and alignment between active believers, customer, channel, sales, product management consistently during several years was the determining factor*" and a SmartCo manager said: "*If I could go back in time, I would definitely evaluate, select and develop much faster strategic partnerships, be much more decisive, not leaving open too many options but decide with a sense of urgency to effectively collaborate. It is an on-going process of re-considering and re-evaluation as the market environment constantly changes"*. Basically relationships and collaborations take a lot of time to evaluate and select; as a WoodCo manager formulated: *"We spent a lot of time analysing, verifying and discussing, before engaging into a relationship with a partner"*. A BioCo manager confirmed this idea and added: *"Potential partners have been analysed in great detail and verified on complementarities and 'chemistries' from various angles before engaging into a collaborative partnership"*. Traditionally, relationships and collaborations are built over time, on trust, commitment and share resources and should be beneficial for all involved as worded by a WoodCo manager: "*The Dutch firm was initially of interest to us for their testing equipment. But we discovered with them the importance of the supply chain. They had also market knowledge, access and the Dutch market appeared more open and earlier ready for our applications. In the end, we had very strong incentives to succeed together"*. Important is to align the interest and capabilities of the partners. CoreCo dealt with the not invented here syndrome and was much too slow to act and react as indicated by a CoreCo manager: *"CoreCo really tried hard, had plenty of resources and a large but complex organisation, but essentially were not in alignment with the market"*.

To summarise, the above analysis indicated that lead partners can be an important lead factor. Lead partners constitute a collaborative network or 'eco' system of complementors, distributors and suppliers, with whom the organisation connects, communicates and collaborates, in order to create value for all involved.

LEAD EXPERTS.

RiskCo invested from the beginning in professional IT systems and customer support systems. They were able to use their customized IT system as a competitive advantage. Year after year, investments were made to enhance the quality, the convenience and the speed of those systems. The business CEO said: *"Robust analytics, algorithms and an expert system gave the impression, decision-making was simple. Together with the customers a unique solution can be co-created easily and quickly. A sophisticated expert system captures all relevant knowledge and is combined with a state-of-the-art IT platform"*. The CoreCo organisation had been assembled with internal corporate high potentials. However, no serial entrepreneurs and external experts were hired. An example of the learning organisation in practice. In reality, the team was not ready for a maverick battle. They appear to be too much internal oriented as one manager stated: *"We struggled with engineering centric 'not invented here syndrome', trying to leapfrog the competition with the fastest and most reliable core router on the market. We dealt with too many newness factors all at the same time"*. WoodCo was a small organisation addressing a totally new market for them. However they were able to complement their lack of knowledge with complementary experts. A WoodCo manager was fully aware of this when he said: *"We assembled a network of experts and capitalized on their value towards the market. Especially for the industrialization and their go-to-market, we identified, screened and selected strong local partners"*. Initially WoodCo had targeted the Scandinavian market, capitalising on a partner and the attractiveness of the market. As this relationship deteriorated, due to conflicting interests, they migrated their focus towards the Belgian market, which demonstrated ultimately to be extremely conventional and rather a lagging market. Finally, they found the right lead mix in the Netherlands and successfully entered this market. Afterwards, other emerging markets have been added to their portfolio. Furthermore, WoodCo was able to leverage its network of experts and partners and with those selected, effectively and closely collaborated in an open way. From the beginning, any partner had to demonstrate their commitment by co-investing in the relationship. Moreover, WoodCo got the attention of several governments and associations which resulted in different innovation awards. This generated a lot of visibility and credibility, as a leading company. Step-by-step, they were able to enhance their reputation, confirmed by external thought leaders. On one hand, the experts influenced positively the revenue growth, but on the other hand, created a pull effect and attracted distributors in other regions, to work with WoodCo.

To summarise, the above analysis indicated that lead experts can be an important lead factor. Lead experts will help the decision makers make more informed and accurate decisions and deciding which innovation projects to pursue and which projects to question or freeze. Basically, a distinction between market, product and context experts can be made. Most familiar are product thought leaders, credible for their technological expertise and who typically belong to standardization and technology institutes.

LEAD CHAMPIONS.

Lead champions orchestrate the value process. A WoodCo manager explained: "*One of the challenges that you have is alignment among all lead players, because if you do not, whatever you are trying to do becomes ineffective".* The RiskCo story also highlights the critical role of the leader. In this case, the initial entrepreneurial CEO had to be replaced by a more business oriented CEO in order to bridge the gap towards profitable growth. A RiskCo manager stated: "*The business leader has to be a great motivator and communicator, willing to take risks and change course. He knows what he wants and he is able to get his team energized. The day the weather is changing and becomes more predictable, many entrepreneurial visionaries start losing interest. He or she has to become another person, being efficiency centric and exploiting. Very few champions change or are willing to change. If not, it is time for a new CEO".* Moreover, he continued saying: *"Market entry was prepared by a champion who identified a neglected market space. The economic crisis fuelled risks and increased demand for customized solutions. As the drive of the initial CEO lost momentum he was replaced by a CEO who was now focusing on selling and on profitably growing the business*".

However, there is not only the CEO. The research indicated that product; marketing and customer managers also play a key role in guiding the organisation towards growth. Employees have to know were the organisation is heading towards, their strategic intent and their strategies. RiskCo made sure it got the right employees. A RiskCo manager informed: "*RiskCo got it right from the beginning, employees were highly experienced and several external hires had excellent customer contacts. Newcomers brought with them customer contacts which were generating immediately revenues. The CEO was able to get attention. He knew the market, he knew how the industry was thinking and acting"*. In contrast CoreCo was an internally driven RCV and a CoreCo manager mentioned: *"CoreCo was inside the corporation a highly visible corporate initiative with many internal high potentials but no serial entrepreneurs and not enough external talent"* and another one said: *"The lack of entrepreneurial veterans was one of the key reasons why we failed. We relied too much on internal high potentials. In the battlefield there is no time for learning, but for the fastest execution"*. The champion knows what he wants and he assertively explains and motivates his team for moving ahead and making a difference. The RiskCo CEO told: *"Bernard (the CEO) was a dictator and did not accept no for an answer. He was very driven, driving anyone with his ideas and plans"* and he continued by saying: *"I (the new CEO) am an Israeli general, which means I am together with my troops at the battlefield, I am not in my office. I have to be with customers in the field to understand what's going on. What is the climate? How is our customer doing?* "A SmartCo manager said it very well: *"You need a different skill set and attitude during the early stages. New business development is an intriguing experience. You need freedom to act and accept a messy fuzzy environment. This kind of marketing is what I like to. But it's not for all. During the initial stage you need type 1 marketer or explorers; during growth you need type 2 marketers or settlers. The two types are equally important. They are different and are coming from different planets"*.

To summarise, the above analysis indicated that lead champions can be an important lead factor. Lead champions are needed to orchestrate, to drive and monitor the progress, shape and educate a new market into being. They trigger industry breakpoints, or "strategic inflection points". Frequently, the venture leader, the product marketing manager and/or the strategic customer manager, play a determining role in effectively collaborating with all other stakeholders and make real-time adjustments.

LEAD MIX: ANALYSIS

In this section, a cross-case analysis has been conducted. Cross-case analysis is important to enhance generalizability, or in other words guarantee the relevance or applicability of the findings to other similar settings. To aid in the comparison of the different cases, "Harvey Balls" have been used to rate the impact of each capability on the outcome. As a preliminary attempt, a high-level estimation of the impact on the outcome of each case has been determined, based on discussions with different managers in the second research phase. The assessment is based upon the extent to which those capabilities strengthen and have a positive impact on the outcome of the case. The degree of "impact on the outcome" is expressed in "Harvey Ball" notation on a linear scale from "unfavourable impact on outcome" to "very favourable impact on outcome" and with a median value "neutral impact on outcome".

◔ Unfavourable impact ◑ Neutral impact ◕ Favourable impact ● Very favourable impact

For example, if a ◔ score is given to the situation, then this would mean this capability would be unfavourable or non-beneficial to the outcome. In contrast, a ● score would indicate it would be very beneficial for and favourable to the outcome. Our fit assessments are based and derived from the in-depth qualitative research with more than 100 managers and experts and need to be further verified by more in-depth and quantitative research. This detailed analysis is beyond the scope of this research project.

The study reveals, that an important MBD related capability for' lead' organisations, which seek to commercialize radical innovations and succeed during the early time-into-market, is the ability of lead champions to shape with the 'right' lead users and customers and involve the 'right' experts and partners at the 'right' time. Concurrently, a major business related capability is the ability to sell and deliver the 'right' lead offering, the 'right' lead generation with the 'right' lead partners and to capture value for the organisation. The analysis indicates that the better RCVs: Master all lead elements equally well, have stronger abilities for those lead elements, are able to synchronize over time the lead elements mix and dynamically adapt the lead elements to the environment.

Table 5: MBD lead framework: Cross-case analysis

Lead Mix	CoreCo	BioCo	SmartCo	StressCo	WoodCo	RiskCo
Industry	Telecom ICT	Automotive Chemicals	Utilities ICT	Agriculture Chemicals	Wood Chemicals	Financial Services
Lead Offerings	◔	◑	◑	◕	●	●
Lead Users	◑	◑	◑	●	●	●
Lead Customers	◔	◑	◕	●	●	●
Lead Markets	◔	◕	◕	◕	●	●
Lead Partners	◔	◑	◔	●	●	●
Lead Experts	◔	◑	◑	◕	●	●
Lead Champions	◔	◑	◑	◕	●	●

◔	◑	◕	●
Unfavourable	Neutral	Favourable	Very favourable

LEAD FRAMEWORK: FINDINGS AND DISCUSSION

Growing and complex demands are placing traditional commercial approaches under increased pressure (Lane and Piercy 2004) and effectively managing selling (Avlonitis and Panagopoulos 2010) is about addressing selectively and progressively strategically important customers (Millman and Wilson 1996; Sharma 2006) in a bi-directional way: selling the company to the customer and selling the customer to the company (Piercy 2009). Being proactive has become a vital part for succeeding (Brehmer and Rehme 2009; Hui Shi et al. 2010). A typical strategic customer management approach takes the buyer/seller dyadic relationship as central (Hui Shi et al. 2010; Lane and Piercy 2004) and an intense collaboration between sales and marketing (LaPlaca 2008; Le Meunier - FitzHugh and Piercy 2007) is a must. However, a company's relationship portfolio also comprises key relationships with other types of actors (Ivens et al. 2009) while recognizing the heterogeneity of relationship typologies (Storbacka and Hanken 2009). Moreover, relatively few studies are dealing with the dynamics of radical innovation and more specifically about the interplay of relationships and the role of networks (Story et al. 2008).

The **ABX** discussions demonstrated, that ABX was able to see and act with determination on the right opportunities, closely working together, intensely dialoguing with different decision makers and speed of decision making were perceived as very important criteria. Most ABX managers agreed: *"Our global reach, local presence and very broad portfolio of customers and products, services and solutions are a major strength. We can spot easily new opportunities and our business culture allows us to move ahead"*. However, also comments were made like: *"Our broad portfolio is great but selling radical and new solutions takes time, involves many internal departments, and many managers. We need leaders who can channel the sales process effectively and quickly. We need leaders inside our organisation who team up with leaders inside the customer"*. Moreover, most were convinced that networking and leveraging relationships was critical and the link was made to the need to cooperate, to collaborate, and to co-create. A statement of a manager was: *"It is all about relationships. You need to know from the beginning who you need to target. Remember, with radical innovations most of the time you are addressing unknown territory. Know your relationship network*". The discussions indicated that without relationships the best offering does not sell. Furthermore, it was mentioned that lead markets really matter because they were supported by a favourite governmental support, which can make a difference and stimulate take-off. ABX was highly technology and radical innovation oriented and used governmental strategic priorities to spearhead its own radical innovation initiatives. The lead markets were "top down" determined and lead users and trendsetting potential customers were 'bottom up' determined, while moving ahead with a discipline for making sure the 'bottom line' was a focus point.

Furthermore, the cross-case assessment confirmed that 7 lead elements could be identified.
First, a lead offering can be operationalized by the ability to offer competitive, compelling and consistent customer value offerings. It is a competitive compelling bundle of the 'core' product with services and proprietary knowledge, that makes it hard for competitors to provide a comparable alternative, as effectively and as efficiently (Sawhney et al. 2006; Vargo and Lush 2004). To sustain this advantage, the ability to continuously enhance and improve the proprietary knowledge for the next generation offerings, is a must. Scaling the offering is essential to optimize the time-to-close a deal, the time-to-tailor the offering and the time-for-availability and is about de-risking (Day et al. 2004; Shapiro 2001). Furthermore, any lead player will lose interest, if you lose the lead to competitors and they will drop you instantaneously, as seen with CoreCo. Selling offerings requires a number of conditions: the company has an intimate in-depth understanding of the customer's business and it takes time to close a deal. CoreCo was building newness on too many fronts and added complexity in the way it was organized and managed, what slowed down speed of action. Contrary, WoodCo stayed focused on a limited number of applications.

Next, lead users are operationalized and defined as product and services users, who experience strong needs for a given new product and service, earlier than the majority of the target market (Von Hippel 1986). The lead user method was originally a market-oriented methodology to engage customers during the development process (Von Hippel 1986). Lead users are ahead of the market trends and have needs that cannot be satisfied by current existing products and services. Lead users have a high motivation toward new solutions, are willing to experiment and exploit early information (Thomke 2001) and

are embedded into a very supportive environment (Lettl 2007). It is widely recognized and accepted in the literature, that lead users are important during NPD as a market research mechanism (Herstatt and von Hippel 1992), as a technique to capture new product ideas (Olson and Bakke 2001), as knowledge source (Jeppesen and Laursen 2009). However, as the CoreCo case has demonstrated, engaging with the 'right' lead users is not that easy, is no guarantee for success and requires to remain alert for internal challenges and changing market, customer and technological shifts.
Marketing and sales need to ensure the organisation is focusing its listening activities on the "right" potential attractive trendsetting customers – those selected by criteria such as strategic "fit," or new growth opportunities. For gaining a holistic customer and market understanding, marketers need to generate more complete views of customers, probing their surrounding "ecosystems", to identify the outcomes customers ultimately seek in using products and services. Addressing lead users requires a number of conditions: the company has an intimate in-depth understanding of the customer's business. However, overreliance on lead users or customers with an advanced understanding of a product and who are experts in its use, might guide a RCV in difficult spaces. Lead users may offer novel product ideas, but they are not average users. So new products influenced from their recommendations may have limited appeal.

Third, lead customers are early adopters willing to pay the price and they want a solution that fits their specific problem. A high degree of customer orientation is necessary, while realising that companies do not buy, people do (Bonoma 2006). It is essential from the beginning to demonstrate you have a competitive compelling offering and to demonstrate you are able to probe, persuade and prove and need a fair amount of value for the delivered offerings and services. At this stage, an exploratory market driving approach (Berghman et al. 2006) is most appropriate. Market leaders know that the way to build momentum is to focus ample energy on a well-defined target. Focus means, having clarity of intent and direction. Focus means, selecting your customers carefully and calibrating your operating model to their specific needs (Treacy and Wiersema 1995; Wiersema 2001). An ATR manager insisted: "*We are really able to identify the next generation of products but we fail in capturing the extra value through correct* *pricing*". According to Slywotzky and Morrison (1997): "*The number one problem in business today is profitability ... On who to focus?*" (Slywotzky et al. 1997). SmartCo and WoodCo managers confirmed: "*Screening early customers is an on-going process of re-considering and re-evaluation as the market environment constantly changes*". It is important, at this stage that 100% solutions are developed and delivered (Moore 1999). This means however that this '100% solutions' can only be developed for a limited number of lead customers. Moreover, as the CoreCo case demonstrated, engaging with the 'right' lead users is not that easy and requires remaining alert for changing market, customer and technological shifts. Marketing and sales need to ensure, the organisation is focusing its listening activities on the "right" customers – those selected by criteria such as strategic "fit," or growth opportunities. Gaining a holistic customer understanding marketers need to generate more complete views of customers, probing their surrounding "ecosystems" to identify the outcomes customers ultimately seek in using products and services. On the other hand, lead customers are early adopters willing to pay the price and they want a solution that fits their specific problem. Excessive customisation can jeopardize the profitability of the offerings. Basically, customer-linking capabilities are critical and, comprises the abilities, and processes needed to achieve collaborative customer relationships so individual customer needs are quickly apparent to all functions and well-defined procedures are in place for responding to them (Day 1999; Day 1990). There is no free lunch and a comprehensive change program is required aimed at creating and enhancing these capabilities (Day 1994; Day 1999; Day 1990).

Fourth, lead markets operationalized, by the ability to identify an attractive foothold market: early market segments, countries or regions with supportive regulations and policies. They are high growth potential sectors, regions, countries or new spaces at the intersection of different sectors or domains where public authorities and regulators could facilitate and stimulate industry-led innovation, by removing certain barriers, setting standards, improving procurement rules or providing support. What we noticed: CoreCo was too myopic on the core of the network ignoring, that the window of opportunity was

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closing in the market and was migrating towards the edge of the network. In contrast, WoodCo dealt with the challenges of entering an emerging market totally differently.

Initially, they had targeted the Scandinavian market, while capitalising on a partner and the attractiveness of the market. As this relationship deteriorated, due to conflicting interests, they migrated their focus towards the Belgian market, which demonstrated ultimately to be extremely conventional and rather a lagging market. Finally, they found the right lead mix in the Netherlands and successfully entered this market. Afterwards, other emerging markets have been added to their portfolio. Seen from another angle, lead markets can be high growth potential sectors, regions, countries or new spaces where public authorities and regulators could facilitate and stimulate industry-led innovation by removing certain barriers, setting standards, improving procurement rules or providing support. Capitalising on lead markets is not obvious as has been observed in several cases like with BioCo, enthusiastically addressed the emerging biodiesel market with a strong go-to-market partner during the hype, but re-allocated and downgraded the initiative, to focus on their core business. SmartCo targeted the smart grid market, while it was still in the doldrums and a new executive leadership team questioned the strategic direction. However, the continuous agility of WoodCo enabled them to walk away from two earlier targeted markets that proved to be less attractive, to ultimately enter the Dutch market with positive results. Moreover, the concept and the role of lead markets came more clearly to the surface during discussions with managers and sector associations. For most RCVs, a principal barrier in Europe is the lack of an innovation friendly market. In particular, fragmentation and national boundaries provide major disincentives, barriers and challenges for innovation. In reality, obstacles include multiple levels of regulation and local requirements. A lead market of sufficient scale offers a potential for higher return on investment and with that, reduces the risk. Strategic areas have been identified by the European Commission, where public policy can have a sufficient role. The focus domains are: e-health, bio-based products, renewable energies, sustainable construction, recycling and protective textiles (European Commission 2006; European Commission 2009). Basically, the EC is committed to take several steps to facilitate the creation of lead markets. First, providing a harmonised regulatory environment across the EU, favourable to innovation and based on early anticipation of needs. Second, using standards-setting powers to demand high technical performance levels and reach agreement on new standards quickly and efficiently. Third, using public procurement to drive demand for innovative goods, while at the same time improving the level of public services (European Commission 2006; European Commission 2009). Also, at more regional level, lead market initiatives find their way. For example, the Flemish government has recently released a positioning paper elaborating on their new industrial innovation policy, including its vision and strategic intent for the future of the industry in Flanders (Flemish Government 2011). The emphasis is about accelerating the industrial transformation, based on value creation, productivity and flexibility. The Flemish government is committed to support the Flemish industry during its accelerated transformational process. This transformation process has to make Flanders much stronger, economically performant, innovative, ecological and sustainable. In a positioning paper, a call for action is formulated. A fund of € 200 million has been made available to strengthen and accelerate the go-to-market of strategic innovations. A clear go-to-market strategy has to be established before support funding can be obtained. In addition, lead organisations have to take the lead to spearhead the innovation ventures (Flemish Government 2011).

Fifth, lead partners operationalized by the reach, richness and complementarity of experts and trusted partners, who are effectively collaborating. They constitute a collaborative network or 'eco' system of complementors, distributors and suppliers with whom the organisation connects, communicates and collaborates, to create value for all involved (Tapscott and Williams 2006). Moreover, firms that possess a heterogeneous network of collaborative partners within the framework of their innovation strategies perform better (Faems et al. 2005). However, having an 'eco' system of strategic partners is worthless, if organisations do not effectively collaborate and organisations must be capable of coevolving or shifting their web of relationships to exploit fresh opportunities and dropping deteriorating ones (Eisenhardt and Galunic 2000). BioCo capitalized on a credible motivated go-to-market partner and WoodCo has been complementing and strengthening its business model with strong partners. WoodCo assembled a network of experts and capitalized on their value towards the market.

Especially for the industrialization and their go-to-market, they identified, screened and selected strong local partners. CoreCo remained lean and mean but was able to leverage its network of experts and partners and with those selected, effectively and closely collaborated in an open way. From the beginning, any partner had to demonstrate their commitment by co-investing in the relationship. Several organisations are capitalising on this trend and are seeking to transform the way they connect, co-create, co-develop, co-innovate, communicate and collaborate across interconnected networks of stakeholders. Gummesson (1987 & 1994) views relationship marketing, as a strategy to redefine, add, develop and broaden the interactions towards hyper-collaboration (Gummesson 1994; Gummesson 1987). However, to increase the odds of success, RCVs need to understand why and how to collaborate with insiders and outsiders. Engaging "outsiders" has the benefit of adding complementary capabilities, challenging existing assumptions and stretching the RCV boundaries (von Stamm 2004). Prahalad and Krishnan even state that the biggest winners in the 21st century business will be those that assemble a global ecosystem of partners, emphasising flexible access to products, talents, and expertise, not ownership (Prahalad and Krishnan 2008). However, Liu and Hart (2011) make the case for a more nuanced concept of knowledge cross-fertilization, where managers are alleged to look more closely at the question of experience, if they are to harvest full value from collaboration (Liu and Hart 2011).

Sixth, lead experts operationalized by the ability to be perceived as thought broker, thought leader and thought expert and solution facilitator. This relates to internal and external direct and indirect connections that marketing and sales forces have established and are able to leverage with key influencers and decision stakeholders. Experts and opinion leaders help the decision makers make more informed and accurate decisions and deciding which innovation projects to pursue and which projects to question or freeze (Ozer 2009). Basically, a distinction between market, product and context experts can be made. Most familiar are product thought leaders, credible for their technological expertise and who belong typically to universities, standardisation associations or technological institutes. WoodCo's industrial and commercial partner in the Netherlands got a lot of visibility and has been awarded for a prestigious innovation awards and as such, gained more credibility in the industry. This was further leveraged by lead market experts, who promoted in publications and web media, WoodCo as the next sustainable breakthrough innovation solution, with great market potential. In addition, the innovation award buzz was replicated in other markets and was creating an increased visibility and credibility and ultimately generating a pull effect. As an example: WoodCo was actively present in the market, talking to as many knowledgeable organisations and influential experts as possible. However, they were modest in communicating, as they did not want to overcommit and because they wanted to stay under the radar of potential competitors. CoreCo however, had limited direct connections with key decision-makers and was too far removed from the battlefield, while at the same time their competitors were very intimate with leading experts and trend setting customers. Moreover, CoreCo attracted internally several high potentials, but no serial entrepreneurs and not enough external talent.

Finally, lead champions are needed to orchestrate, to drive and monitor the progress, shape and educate a new market into being. They trigger industry breakpoints, or what Andy Grove of Intel called "strategic inflection points" (Burgelman and Grove 1996a). Frequently, the venture leader, the product marketing manager and/or the strategic account manager play a determining role in effectively dialoguing and collaborating with all other stakeholders and make real-time adjustments to changing windows of opportunity. A StressCo manager claimed: *"our sales rep pushed us for several years ahead*". Champions can lose their vitality and might have to be removed. RiskCo had initially an entrepreneurial market oriented leader, who was driving the market, but after a successful launch, he lost interest and ultimately was replaced by an entrepreneurial business leader, who had to re-energize and rejuvenate the strategic lead mix. Great champions, according to Jim Collins (2001) possess a paradoxical mixture of personal humility and professional will. They are timid and ferocious; shy and fearless; rare and unstoppable" (Collins 2001). An in-depth understanding of the customer's business and value chain is essential to develop compelling customer solutions. Solution selling is only appropriate, when there is a willingness from both sides to take the time, make available to resources and have the trust to address critical problems and finding together a compelling solution. Not all customers desire or are organizational capable for entering in this type of relationship. Customers should be ready to engage in such a relationship.

Moreover, in today's knowledge economy, according to Vargo and Lush (2004) and Verbeke et al (2010), knowledge has become an integral part of the creation of value in terms for marketing and selling of products and services. (Vargo and Lush 2004; Verbeke et al. 2010). In B2B settings, understanding the customer's decision system and its members, means knowing as much (or more) about the customer's business, as its management does. It requires an understanding of the direction and the velocity of the value migration in the industry and a level of relationship, well beyond the traditional supplier-account interactions (Slywotzky 1996). Customers are now better informed than before and places pressure on sales forces to possess knowledge that is unavailable to the customer. In this context a major challenge for market oriented organisations is to become lead knowledge brokers, whose job it is to capture and transfer knowledge from and to customers. This demands that sales forces acquire and possess knowledge, about their products and services and about the way those help their customers solve their problems. This transfer of knowledge predominantly takes place through dialogues with customers. In addition, an understanding of the dynamics of the decisions making units is required. Sales forces have to connect and build relationships with buying centres and opinion leaders, lead customers and lead experts, because they all affect the take-off of radical innovations (Birkinshaw et al. 2007). Vargo and Lush (2004) argue that knowledge of products, services and customers is required to co-create solutions for and with customers. This ability to understand the know-what and the know-how of a product, how it might produce a solution and who will adopt it - the know-who - can be explained by the absorptive learning capacity of marketing and sales forces (Abell 1999; Zahra and George 2002a). Sales forces have to be perceived as thought leaders in order to influence their network (Verbeke et al. 2010). However, the literature still presents sharply contrasting and at times even contradictory views of knowledge (Brown and Duguid 2001).

Conclusions

In this section, key success factors during early commercialisation, have been analysed and discussed. First the data has been analysed, then findings have been determined and discussed. Ultimately, a tactical framework has been established that could be a valuable tool helping RCVs anticipating and navigating during their early commercialisation adventure.

Figure 18: MBD lead compass framework

Basically, this research confirms that organisations need to put in place a bridge-building function, which is orchestrating lead elements between several internal functional departments and several external decision-making units with customers and among market players. In practical terms, the leader, product/marketing managers and sales managers have to take that role and responsibility and function as lead knowledge brokers. Several lead elements have been identified. A fundamental error is to focus on parts, rather than on the whole and not to adapt them over time. The

Identified framework consists of seven interdependent and mutually reinforcing lead points, part of a lead compass.
The lead company has an optimal lead mix which is dependent on the competitive environment, external dynamics, the own organizational DNA, organizational objectives, goals and strategic priorities.

This empirical study establishes an actionable tactical framework that conceptualizes the early radical innovation commercialisation anatomy with critical lead elements to be proactively aligned and customized with the right pace and in real time mode. An effective co-evolving adaptive and collaborative approach is required which has to be orchestrated as an integrated web of lead elements and relationships to exploit continuously new lead opportunities and dropping deteriorating ones.

The seven lead element framework involves analysing seven interdependent aspects: lead users, lead customers, lead partners, lead experts, lead markets and lead champions. Working synergistically, these key factors account for the effectiveness during early commercialisation of radical innovations. The 7L framework calls for evaluating the seven key elements and analysing the relationships among them to ensure consistency.

CHAPTER 9: CONCLUSIONS, IMPLICATIONS, LIMITATIONS & FURTHER RESEARCH

Introduction

This research project has empirically investigated radical innovation growth both through an evolutionary and a dynamic capabilities lens. In chapter 6, market and business development (MBD) has been analysed as a combination of market development (MD) and business development (BD), which have further been operationalized, respectively as a market orientation (MO) and as an entrepreneurial orientation (EO) capability. The research examined the prerequisites for radical innovations during a prospecting and during an accelerating phase. This approach led to the identification of an exploratory and driving entrepreneurial market orientation (EMO) capability, which appeared to be the better fit during the prospecting phase. On the contrary, an exploitative and driven EMO capability appeared to be the better fit during the accelerating phase. In chapter 7, the research zoomed in on MBD as a dynamic bridging capability; core MBD dynamic capabilities were identified and discussed. In chapter 8, a MBD lead framework was established and described.
In this chapter, the final conclusions will be summarised and the theoretical and managerial implications will be discussed. Finally, the limitations of this research project will be addressed and avenues for further research determined. Figure 19 gives an overview of the main research tracks and highlights the focus of this chapter.

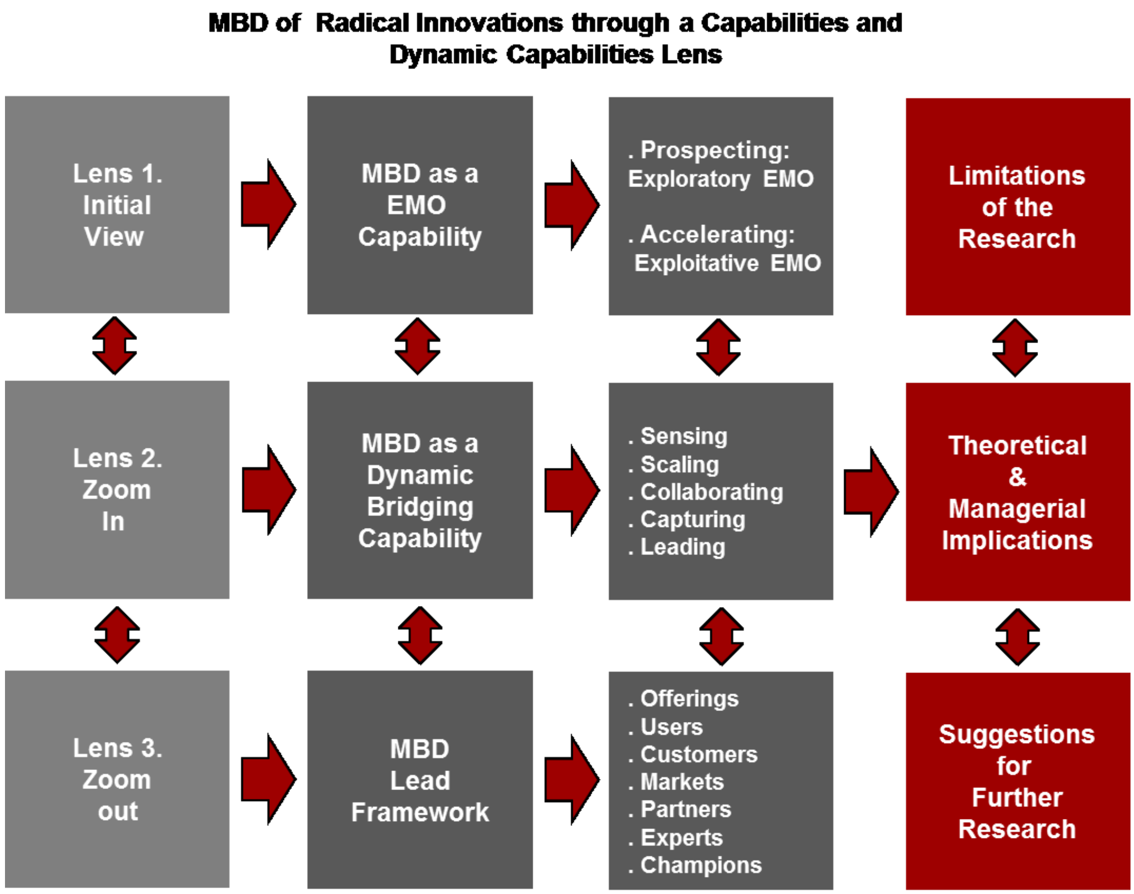
Conclusions, Theoretical and Managerial Implications

"*The whole idea that a map can be drawn in advance of an innovative journey through turbulent times is a fantasy*" (p. 1) (Stacey 1992).

Radical innovation initiatives an engine of profitable growth?

Radical innovations are primarily pursued for strategic renewal reasons, to identify new profit pools, to rejuvenate competitive advantage and ultimately to increase shareholder value. Unfortunately, the outcome of radical adventuring into unknown space is unpredictable. Indeed, the downstream innovation initiatives and more specifically the MBD efforts of radical innovation projects are for established companies still a major challenge. The mortality rate among ventures remained high and those failures are mainly due to the mistaken assumption, that management approaches are universal (Block 1982).

Figure 19: Overall research findings overview



Succeeding is not just about developing a new market. Nor is it only about developing a new business. In fact, focusing on any of these elements in isolation may drive organisations to an illusion; they are on the right track. Most radical innovation ventures are very ambitious and have a vision of becoming a high growth organisation. But, as they all start small, they are subject to the liabilities of newness and smallness. In other words, they are unknown, are untested and are lacking legitimacy (Burgelman and Siegel 2008; Burgelman and Siegel 2007). MacMillan and George (1985) already warned that corporate venturing is not an easy game, when they said that creating new businesses within a company is often the only way to grow, but many attempts result in abysmal failure (MacMillan and George 1985). Wiersema (2001) insists that growth is a prerequisite and unless you are growing as twice the pace of your peers, you are at risk of falling behind in the race for market leadership" (Wiersema 2001). What can we learn from the literature, of success stories and of failures?

An empirical investigation with the aim to generate new insights and new tools.

The aim was to generate new theoretical insights and clarify the way managers think about the route to market and to business success. Today, most managers use the same navigational tools, confronted with highly turbulent or stable situations, incremental or radical innovations. This report identified why managers cannot use existing maps, if they embark on a radical innovation journey and which tools they can use to influence and control their destiny. In essence, this research project has empirically investigated the early commercialisation dynamics of radical innovation ventures through an evolutionary lens of capabilities and dynamic capabilities.

Therefore, key questions for the research were: What are major MBD challenges during early commercialisation? Why? Which MBD capabilities are required during a 'prospecting' phase? Which MBD capabilities are required during an 'accelerating' phase? How to bridge the PTA phase addressed from a dynamic capabilities perspective? Which practical frameworks can be established, to help navigate managers the PTA race?

A pre-understanding analysis confirmed relevance and complexity.

An extensive literature review has indicated that, along the innovation life cycle, MBD at RCV level, has been relatively under-researched (Baker 1983; Di Benedetto 1999; Di Benedetto et al. 2008; Lee 2009; O'Connor and DeMartino 2006; O'Connor et al. 2008b; Tellis 2008). Basically, this upfront analysis confirmed, that this research project was addressing simultaneously an important business issue and an academic knowledge gap. First, the early "time-into-market" was perceived as a complex and multi-disciplinary problem, with many internal and external variables. Second, previous related empirical diffusion studies, had been primarily in business to consumer (B2C) settings and were mainly USA-based. Third, due to the multi-dimensionality of the research scope, a longitudinal field research at project level was appropriate as granular approach. Fourth, empirical research of early MBD through a capabilities and dynamic capabilities lens was a neglected research space in B2B.

A longitudinal field research, complemented with an extensive literature review.

In order to surface the parameters of MBD and RCVs, literature from organizational theory, strategic management, innovation management, entrepreneurship, corporate entrepreneurship and corporate venturing and marketing and sales management has been considered, in order to identify a theoretical and practical framework. Over a period of three years, six cases have been studied and more than 100 managers have been involved during face to face interviews and several focus group sessions have been conducted to verify preliminary findings and to capture additional insights. The participating managers came from several knowledge intensive industries, from various countries and companies across Europe and the Middle East and managers from different functional departments have been contributing to this project. The research is rooted in the inner workings of organisations at a granular level. A double loop triangulation process was applied.

Research demonstrates that corporate radical venturing can be successful.

This study confirms that the pursuit of new territory by selecting a radical and uncertain path is a race with its own rules. Those ventures are unpredictable and many established corporations are avoiding such risky races (McGrath and Keil 2007; McGrath et al. 2006; McGrath and MacMillan 2000). Markides (2004 and 2008) claims that major innovations within established organisations are questionable (Markides 2008; Markides 2004), Christensen (1997) demonstrates that well managed organisations struggle with disruptive innovations (Christensen 1997) and

Govindarajan and Trimble (2005 & 2010) argue that execution is a major concern (Govindarajan and Trimble 2010; Govindarajan and Trimble 2005c). However, this research suggests, that success can be achieved by capitalising on a selective number of MBD capabilities and by leveraging core MBD dynamic capabilities.

Equilibrium destroying (Schumpeter) or equilibrium restoring (Kirznerian)?

MBD is defined as MD and BD, which are different from each other. MD is basically, the creation of a market and more specifically the creation of customer awareness, interest, attention and value for the customer. BD is essentially, the capturing of value for the RCV and is more specifically the selling, serving, solving and delivering and capturing of value for the company. The research suggests, that creating a market and developing a business, requires different capabilities and those capabilities need to be congruent and dynamically adapted over time.

MD can be viewed as a market orientation (MO) capability by which organisations are proactive, while educating markets and customers (market driving) or responsive to markets and customers (market driven) to the market environment. BD can be viewed as an entrepreneurial orientation (EO) capability, by which firms embark on equilibrium destroying initiatives (Schumpeterian view) or equilibrium restoring initiatives (Kirznerian view), to capitalise on and leverage new growth opportunities.

In other words, those four capabilities can be described as follows: MO (1) as market driving is viewed as shaping the market, based on an ambitious vision and a strategic intent. The organisation has to educate the market. Flexible focus, being effective and proving the value proposition are critical elements. It is like a push model. MO (2) as market driven is viewed as serving the customers, by listening to their needs. In other words, being responsive and reactive. Internally, a major driver is to be efficient and to get results. It is like a pull model. EO (3) as creative destruction or the Shumpeterian view is about identifying new opportunities and about disrupting and changing the rules of the game. The organisation has to excel in experimenting. An exploration logic is typical. EO (4) as leveraging resources or the Kirznerian view is about identifying hitherto unnoticed opportunities. Focus is efficiency, fine-tuning and optimizing of resources. The exploitation logic is valid.

Prospecting and accelerating the better way to separate time-into-market in B2B.

Simultaneously creating a market and developing a business, requires to bridge during the early time-into-market, inflection points (Burgelman and Grove 1996b; Grove 1998), tipping points (Gladwell 2001; Kim and Mauborgne 2003), sales take-off (Tellis et al. 2003), hypes (Fenn and Raskino 2008) or chasms (Dhebar 2001; Moore 1999; Moore 1995). This research suggests, that in business environments, a better practice is to unbundle the early time-into-market, in a prospecting and an accelerating phase. During prospecting time, the emphasis is on testing, experimenting, trials, proving the customer value propositions and ultimately on getting testimonials. During accelerating time, the focus shifts and is now on effectively realising repeat business, accelerating selling, time-to-close an order and getting recurrent revenue streams from customers. Those initial phases appear to deal with totally different environmental characteristics. The conditions are opposing related to market, technology and competitive dynamics. Success factors across those phases are dualistic: exploring versus exploiting, adapting versus aligning, anticipating versus reacting, driving versus driven, destructing versus restoring equilibrium.

A stage gate between the prospecting and accelerating phase could be beneficial.

The new product development (NPD) process is managed in many organisations through a series of evaluation stages or ‘‘gates’’ (Cooper 2008; Hart et al. 2003; Tzokas et al. 2004). The research indicated that after launch, most organisations stop using formal stage gate checkpoints and that during the early time-into-market, monitoring mechanisms appear to evaporate. This research suggests to continue applying the stage-gate process during the early commercialisation (Tzokas et al. 2004). A gatekeeper has to monitor progress, after the offering has been launched and has to be on alert, especially during the inflection and phase. This task could be done by entrepreneurial market oriented product managers, but clear roles and responsibilities have to be agreed (Cooper 2008; Tyagi and Sawhney 2010).

The research suggests that pursuing a first prover advantage can be beneficial.

The research findings led to some interesting new EMO insights. During “prospecting” (P), a market driving MO & Schumpeterian EO combination is the better fit. An explorative logic is the most effective. During “acceleration” (A), a market driven MO & Kirznerian EO combination is the better fit. An exploitative logic is the most effective. Ultimately, a change capability is required to migrate from a prospecting position (P) to an acceleration position (A). When and how fast to migrate from P to A, depends on external market factors and the internal DNA of the organisation. A major challenge for a RCV appears to be that the RCV has to deal simultaneously with prospecting, with migrating towards accelerated growth and with serving developing markets.

Finally, how does a RCV know they are approaching the ‘tipping’ moment? The research suggests that it is rather a transition area then a point in time. A good practice is to monitor and constantly assess the progress and that of key competitors of the RCV’s testing feedback, trial initiatives and testimonials results. A good signal is, when some of the lead customers are ready for repeat orders and when opinion leaders talk favourably about the RCV’s potential. Moreover, the findings suggest that, instead of pursuing a first mover advantage (FMA) (Covin et al. 1999; Makadok 1998; Sandberg 2004; Suarez and Lanzolla 2005) or a fast follower advantage (FFA) (Markides and Geroski 2005; Tellis and Golder 2002; Tellis and Golder 1996), rather a first prover advantage (FPA) could be beneficial.

Succeeding through strategically targeting a series of minimum winning games.

Choosing the right battlefield is absolutely crucial to give a venture a better chance to succeed (Hay et al. 1993). Organisations that can combine, balance and synchronise several strategic orientations and organizational capabilities, are likely to have better performance than those with singular strategic focus (Atuahene-Gima and Ko 2001).

The resource based view (RBV) and the capabilities based view (CBV) support the findings. An alignment between EMO is argued to be valuable, difficult to imitate, and rare tangible and intangible resources, processes and values that are difficult for competitors to match (Barney 1991; Barney 1995). Basically, the CBV of the organisation is based on the assumption that organisations know how to do things (Dosi et al. 2008). Dosi (2008) distinguishes routines from capabilities and claims that capabilities involve more significant commitment, enable more significant outcomes and conscious decisions (Dosi et al. 2008). Practically, what an organisation is capable of doing is determined by its resources, processes and values (Christensen 1997; Christensen and Overdorf 2000; Christensen and Raynor 2003).

An EMO alignment, can create complex, tangible, intangible and adaptive capabilities that lead to sustainable competitive advantage (Atuahene-Gima and Ko 2001). Finally, the full value of capabilities emerges only when they work together in a mutually reinforcing system. The value cannot be attributed to one capability, but to the way, they all work together (Leinwand and Mainardi 2010). Moments of truth will be decisions and actions that signal to everyone the magnitude and direction of the change (Gladwell 2001). Expect to conduct lots of conversations and to encounter both scepticism and resistance (Leinwand and Mainardi 2010). However, building and developing capabilities takes effort and time. The faster the pace and rhythm, the faster an RCV has to switch from one type to another and the more difficult to execute.

Govindarajan and Trimble (2010) suggest that innovative organisations, should be able to forget the past, build new capabilities with a sense of urgency and borrow missing capabilities. They also argue that the winner of the race is not the organisation with the best strategy at the start, but the one that is most alert and agile (Govindarajan and Trimble 2010). In other words, a turbulent market environment favours organisations that execute their strategies faster and with more agility (Govindarajan and Trimble 2010). Facing an unforgiving external selection environment, most new ventures do not survive. Some however do and are able to continue to pursue their vision. Such organisations are able to do so by means of strategically defining a series of minimum winning games (Burgelman and Siegel 2008; Burgelman and Siegel 2007).

The better aligned today, the more challenging to remain aligned tomorrow.

For bridging the 'Prospecting to Accelerating' phase, an orchestrated transformation process is needed. This transformation approach has to be sensitive to the heterogeneous interests of several stakeholders, like partners and engaging customers. The paradox is, that the better the organisation has been at building strong congruent capabilities during the prospecting phase, the harder it will be to migrate towards the accelerating phase. Knowledge of the customer base requires direct interaction and experience with the market (Sykes 1986). According to Kotter (1995), leaders not only have to articulate the intent and describe the challenges, creating shared needs to change, mobilizing strong commitment to make it happen, but also have to establish the organizational discipline (Kotter 1995). Rather than an abrupt turning point, the better approach could be to facilitate as leader, a dynamic stability or a process of constant, but relatively small change efforts, that involve the reconfiguration with changes to be implemented at the right intervals (Abrahamson 2000).

Furthermore, the research suggests, that in order to bridge the PTA, a selective number of key dynamic MBD capabilities are required, which are: First, sensing new opportunities or the ability to identify and anticipate attractive business opportunities while being alert and agile. Second, scaling new lead offerings is defined as having the ability to scale over time with discipline new product/service generations and versions. Third, collaborating with stakeholders, means been able to effectively dialogue and dynamically leverage expertise and experience of critical stakeholders. Fourth, capturing business value is about the ability to effectively deliver competitive value propositions and capture a fair amount of value for the organisation. Fifth, leading is defined as been able to combine complementary entrepreneurial and business leadership disciplines, like for example exploring and exploiting.

The research indicates that an orchestrated transformation process is needed.

Building and developing capabilities and dynamic capabilities takes effort and time (Christensen and Overdorf 2000; Christensen and Raynor 2003). This research indicates, that an orchestrated transformation process or growth as a process is needed (Immelt 2006), that has to deal with the heterogeneous stakeholder interests (Kotter 2007b). Leaders that can stimulate strategic and constructive dialogues, can create an early warning system for the need for change and develop a collective intuition, accelerate constructive conflict and maintain decision pacing (Eisenhardt 1999). Or from a different angle, organisations which foster constructive conflict among their people, will be in the best position to align with a continuously changing business environment (Kets De Vries and Balazs 1998). Furthermore, Foster and Kaplan (2001) talk about three skills that can be helpful: conversation, observation, and reflection (Foster and Kaplan 2001). The organisation's DNA, which impacts the abilities for addressing certain types of problems, also impacts equally, disabilities in addressing the new realities (Leonard Barton et al. 1994). Moreover, the essence of dynamic capabilities is about constantly sensing how the marketplace is changing and seizing these changes through dynamic realignment (Harreld et al. 2007). Govindarajan and Trimble (2010) emphasize that innovative organisations, should be able to forget the past, build new capabilities with a sense of urgency and borrow missing capabilities and be alert, adaptable and agile (Govindarajan and Trimble 2010). Furthermore, Reeves and Deimler (2011) link SCA to organizational capabilities that foster rapid adaptation. Those are primarily, the ability to read and act on signals of change, the ability to experiment rapidly and frequently; the ability to manage interconnected stakeholders and the ability to motivate employees and partners (Reeves and Deimler 2011). The research also suggests, that adding too soon, too much sales capacity, is a major issue. In comparison to a manufacturing or sales learning curve (Leslie and Holloway 2006), the idea of a MBD learning curve could be introduced. The shorter the MBD learning curve; the faster to sell.

MBD lead framework to help managers navigate in unknown space.

A lead framework has been established that could be a valuable tool helping RCVs anticipating and navigating during their early commercialisation adventure. Basically, lead organisations need to put in place a bridge-building function which is orchestrating lead elements between several internal functional departments and several external decision-making units with customers and among market players. In practical terms, the ‘lead champion’ has to take a role and the responsibility as ‘lead knowledge broker’ and change agent. Several lead elements have been identified. An error would be to focus on parts rather than on the whole and not to adapt the ‘lead elements’ over time. The MBD framework consists of seven interdependent and mutually reinforcing lead points, part of a lead compass. An optimal lead mix is dependent on the competitive environment, external dynamics, organizational DNA, organizational objectives and strategic priorities. The 7 ‘lead element’ framework has seven interdependent elements: lead offerings, lead users, lead customers, lead partners, lead experts, lead markets and lead champions. Working synergistically, these key factors account for the effectiveness during early commercialisation.

A lead offering (1) is a competitive and compelling bundle of the ‘core’ product with services and proprietary knowledge delivered through an intimate relationship that makes it hard for competitors to match. Over time new multi generations and versions are added. Lead users (2) are defined as product and service users who experience strong needs for a given new offering earlier than the majority of the target market. Lead users have a high motivation toward new solutions and are embedded into a very supportive environment; Lead customers (3) are early adopters willing to pay the price for a solution that fits their specific needs. It is essential from the beginning to demonstrate you have a competitive compelling offering and to demonstrate you are able to probe, persuade and prove. Lead markets (4) are high growth potential sectors, regions, countries or new spaces where public authorities and regulators could facilitate and stimulate industry-led innovation by removing barriers, setting standards, improving procurement rules or providing support. Lead partners (5) constitute a collaborative network or 'eco' system of complementors, distributors and suppliers with whom the organisation connects, communicates and collaborates to create value for all involved. Lead experts (6) will help the decision makers make more informed and accurate decisions. Most familiar are opinion and thought leaders, credible for their technological expertise and who belong typically to universities, standardization associations or technological institutes. Lead champions (7) are needed to orchestrate, to drive and monitor the progress, shape and educate a new market into being. The venture leader, the product marketing manager and/or the strategic customer manager play a determining role in effectively dialoguing and collaborating with all other stakeholders and make real-time adjustments.

The research suggests that sales forces have to be strategically involved.

Moreover, in today's knowledge economy, according to Vargo and Lush (2004) and Verbeke et al (2010), knowledge has become an integral part of the creation of value in terms for marketing and selling of products and services. (Vargo and Lush 2004; Verbeke et al. 2010). Customers are now better informed than before and place pressure on sales forces to possess knowledge that is scare and unavailable to the customer. In this context a major challenge for market oriented organisations is to become lead knowledge brokers whose job it is to capture and transfer knowledge from and to customers. This demands that sales forces acquire and possess knowledge about their products and services and about the way those help their customers solve their problems. This transfer of knowledge predominantly takes place through dialogues with customers. In addition, an understanding of the dynamics of the decisions making units is required. Sales forces have to connect and build relationships with buying centres and opinion leaders, lead customers and lead experts, because they all affect the take-off of radical innovations (Birkinshaw et al. 2007). The sales manager is expected to be a relationship manager (Davies et al. 2010) selling his organisation to the customer, selling the customer to his organisation and aligning both interests (Guesalaga and Johnston 2010). Vargo and Lush (2004) argue that knowledge of products, services and customers is required to co-create solutions for and with customers. This ability to understand the know-what, the know-how of a product, how it might produce a solution and who will adopt it - the know-who - can be explained by the absorptive learning capacity of marketing and sales forces (Abell 1999; Zahra and George 2002a). Sales forces have to be perceived as thought leaders in order to influence their network (Verbeke et al. 2010).

Policy makers with an innovative mindset should support the MBD phase.

Innovation is on the strategic agenda of most governments, at regional, national and European level. The expectations from major innovations are substantial but the reality is sober and unpredictable. Historically, policy making has been focused on the upstream research and development and incubation innovation cycle while ignoring the downstream or the market and business development activities. This research indicates that policy makers can add value through a number of supporting MBD initiatives.

First, the existing supporting mechanisms and instruments and funding alternatives need to be broadly disseminated and communicated among stakeholders. For large and small corporations the number and variability of current support alternatives represents a major challenge to keep up to date and to be able to capitalize on their existence. Second, the supporting mechanisms need to include beyond the upstream area also the downstream innovation lifecycle area. The supporting mechanisms need to take into consideration the market and business development market creation and business capturing. Third, improving and shortening the standardization processes and regulation processes can be a source of competitive advantage. Technological and system requirements remain to be considered, but if a region can facilitate and be a catalyst of acceleration, this could be beneficial. Fourth, the research suggests that not only the entrepreneur as hero should be emphasized, but also the collective entrepreneurial capabilities and dynamic capabilities of the team have to be understood, managed and leveraged. Fifth, startups, small and large companies need to be better trained and coached about key success factors, barriers, MBD tools and techniques, MBD CAPs and DCAPs. Funding strategic coaching initiatives, spearheaded among others by innovation knowledge centers at for example universities and business schools, could have a major impact on the strategic and economic success of radical innovation venture efforts.

Readiness and willingness to leverage capabilities and dynamic capabilities.

The research identified "lessons learned" about the perceptions and the value of MBD capabilities and dynamic capabilities. First, they are important drivers for realising a sustainable competitive advantage (Eisenhardt and Martin 2000). A capability is strategic when it begins and ends with the customer and when it is unique and be difficult to replicate (Dosi et al. 2008; Stalk et al. 1992). What an organisation is capable of doing, is determined by its unique resources: what they have - tangible and intangible; by its processes: what they can do; and by its values: their attitudes (Christensen and Overdorf 2000; Christensen and Raynor 2003). Second, they are frequently ignored, because they are perceived as fuzzy concepts and they are more difficult to tackle than products or services (Ulrich and Smallwood 2004).

Leveraging your MBD capabilities begins by understanding and accepting they matter. Capabilities have been ignored in organisations over the years because they are perceived as theoretical fuzzy concepts, as most do not have experience in building them and as they are more difficult to tackle than products or services (Bauwen and Hart 2010; Leinwand and Mainardi 2010). Third, they are perceived to be invisible. You cannot see them or touch them, yet they make a difference. They are collective skills, abilities and expertise of an organisation. They form the identity and the personality of the organisation. Organizational capabilities reflect the workforce's collective expertise and define what an organisation does best (Ulrich and Smallwood 2004). Fourth, they need the correct interpretation while starting from the customer by sensing what really matters for them and making sure the right decision making unit members are involved. Organisations should combine MO and EO approaches because they both matter. A new approach is called for, one that melds those cultures while avoiding extreme behaviour. Lean too much in one direction, and the process drifts out of equilibrium; get the balance right, and corporate entrepreneurship will flourish (Garvin 2004b). Fifth, they are difficult to implement; therefore it is critical to focus on a limited number of capabilities that really matter and "de-average" the MBD efforts. Many RCVs want to improve several capabilities equally. Sixth, they need to be integrated and aligned dynamically with the RCV goals, DNA, strategy and the environment. It takes money, time, effort and a willingness to drive significant change. Seventh, they have an impact: it takes time to develop, but market dynamics require the RCV to forget, to adapt and to renew frequently the capabilities mix (Govindarajan and Trimble 2010). This requires an agile and adaptable RCV constantly open for change (Reeves and Deimler 2011). Capabilities that lead a company to early success can later prove to be an impediment (Leonard Barton et al. 1994). Especially processes, by their very nature, are not meant to change. They are designed to create efficiency and consistency. As the organisation grows existing capabilities become disabilities/rigidities (Christensen and Overdorf 2000).

De-average and proactively re-synchronize.

Finally, this study informs management to be unique, to be selective (Dosi et al. 2008), to make sure their capability mix is customized and differentiated (Ulrich and Smallwood 2004) and to dynamically synchronize the mix. Organisations should think and iterate along four steps: making sense of the situation, making choices, making things happen and making revisions (Sull 2007). The research results imply that a RCV does not necessarily have to strive for 'world class excellence' in all capabilities, but should focus on the quality of those capabilities that provide the most leverage for enhancing impact and performance (Harreld et al. 2007; Leinwand and Mainardi 2010). Important is to recognize that a process has to be followed in order to assess, identify gaps and strengths and decide on priorities and actions.

This empirical and longitudinal research project has assessed complex market and business phenomena in and around RCVs, during their early time-into-market commercialisation adventures. The focus of the investigation addressed, how RCVs were facing reality and how they were trying to influence their destiny. Ultimately, the research project was able to suggest a number of compelling findings, with impact for academics, governments and practitioners. A major research objective was, to execute this project with rigour and to identify relevant findings (Wind 2008). The research methodologies and methods have been aligned with the prerequisites of the research objectives, the context and the research questions (Eisenhardt and Graebner 2007; Govindarajan and Trimble 2010; Gummesson 2000). However, some research characteristics, that lead to strengths, also lead to some weaknesses and limitations (Eisenhardt 1989b; Yin 2003). In the next paragraphs, those limitations will be discussed and several avenues for further research will be identified and described.

Critical realism tends to favour case study research, because case studies are suited to explain outcomes, which are attributable to events, relationships and context (Easton 2010). Case study research relies on the researcher to select cases, to collect data, to filter data, to interpret data, to relate data and this in order to identify and formulate alternative explanations (Gummesson 2000). A good practice, was to connect to the community of innovation researchers, to debate findings thoroughly, during several international conferences. The critical realism philosophy, applied in this research, assumed that the meaning of market and business phenomena had to be understood, that due to the scope and the research questions, those phenomena could not be measured or counted; and that there was always an interpretative element (Easton 2010). The empirical domain was where investigations were made. But, events occurred in the actual domain. As a result, the "tip of the iceberg" was studied and this represents a challenge and a potential limitation to the research outcome. However, this empirical investigation has viewed the data through different lenses: through a CAP lens, through a DCAP lens and several strategic orientations have been considered. This approach should be beneficial for our understanding (Easton 2010). The perception and track record of case study research, is less consistently favourable and limitations frequently, relate to relatively superficial evidence and analysis (Harrison 2002). Case studies take up a great deal of time and resources for data collection, analysis and interpretation. The analysis and interpretation of data is typically very difficult and depends on the tacit knowledge of the researcher. And there is the risk of a lack of credibility (Easterby-Smith, Thorpe et al. 2002). Case study research is about engaging with complexities of the real world and about making sense of them, which is not obvious. Harrison (2002) remarks that the researcher has to cope with large amounts of data, collect data in a coherent way, analyse data in a replicable way and condense the complexity into something that is logical and understandable to others (Harrison 2002). Theoretical sampling has been applied, which means that cases and companies have been selected, because they were particularly suitable for illuminating relationships and logic among phenomena (Eisenhardt and Graebner 2007). For example, "polar type" cases were selected, in order to investigate contrasting patterns. The case study implementation process was largely based on recommendations of Eisenhardt (1989), Gummesson (2000), Easton (2010) and Yin (2003). Gummesson argues: *"If you want an in-depth understanding of processes, you need not to study large amounts of cases*" (p. 3) (Gummesson 2000). However, the six cases studies, complemented with the focus group sessions, increased access to reality, explored the real-world context, in which phenomena occurred and provide a good base for theory building (Eisenhardt and Graebner 2007; Yin 2003). This field based research, could narrow the gap between practice and research, because it took extensively the researcher to the field, for investigation and dialogue (Gummesson 2000). Case research required an involvement of the researcher with members of organisations over matters that were a concern for them. In addition, a primary commitment of the researcher, to advance a field of knowledge, in a manner that had some general implications, was essential. A high degree of systematic searching, reflecting and frequent iterating were required and implemented. The aim was to explore the data, rather than putting together a collection of the data (Eden and

Huxam 2002). The research relied on face-to-face semi-structured interviews and has been expanded with a number of focus group sessions. The interviews and the conversations have been complemented with extensive data analysis of public documents, such as websites, articles and private documents, such as minutes of meetings, marketing and business plans.

For validity, generalization and reliability purposes, a case study protocol and database was set up (Yin 2003) in order to maintain a chain of evidence. To reduce the likelihood of misinterpretation, a double loop triangulation procedure was followed. Triangulation is generally considered as a process of using multiple perceptions, to clarify meaning and verifying the repeatability of an interpretation (Stake 2005).

Interviews and focus group sessions have been used to capture data and insights. Interviews were a highly efficient way, to gather rich and empirical data. The longer the period, over which phenomena are studied, the more it was beneficial for capturing insights and the greater the opportunity to assess sequential relationships of events. However, assessing historical data can be challenging. For example, participants might not have recalled important events and if they did so, their recollection might have been subject to bias. A biased response might have resulted, from cognitive dissonance and/or from a retrospective view of the case, on the part of individuals interviewed. A particular problem is post-rationalisation or the interpretation of events in a different manner than they would have had, at the time. For example, the respondent might have placed interpretations on events, or have justified decisions with arguments or knowledge, that was not available at the time. Similarly, what is described in archived data, such as minutes of meetings, might not have reflected the whole truth and difficult or controversial items, might not have been be recorded. In addition, the data, the stories and explanations could have been biased with retrospective sense making. Although, managers from different background were involved, different methods to capture data were used, the issues of key informant bias and common method bias cannot be totally ruled out. In order to limit bias, numerous and highly knowledgeable informants, from different functional departments and from across the EMEA region, have been involved. It is unlikely, that all these "heterogeneous" informants would engage in convergent retrospective sense making. However, other stakeholders such as customers, competitors and channel partners, could have been more involved in the study. Another key approach to mitigating bias, has been achieved by combining retrospective and real-time cases (Eisenhardt and Galunic 2000). The focus group sessions have been conducted, in order to stimulate and capitalise on group interactions, with the aim to capture valuable insights. The downside of those methods, based on group interactions is that the articulation of group norms might have silenced individual voices, confidentiality reasons might have blocked participants for not sharing certain critical facts. Furthermore, hierarchy conflicts, language limitations, cultural and functional barriers could have filtered interesting and important information.

Cross-case analysis is important to enhance generalizability, or in other words guarantee the relevance or applicability of the findings, to other similar settings. To aid in the comparison of the different cases, "Harvey Balls" have been used, to rate the impact of each capability, on the outcome. As a preliminary attempt, a high-level estimation of the impact on the outcome of each case has been determined, based on discussions with managers in the second research phase. The assessment was based upon the extent to which those capabilities strengthened and had a positive impact on the outcome of the case. The degree of "impact on the outcome" is expressed in "Harvey Ball" notation on a linear scale from "unfavourable impact on outcome" to "very favourable impact on outcome" and with a median value "neutral impact on outcome". Our fit assessments are derived from the in-depth field and desk research with more than 100 managers and need to be further verified by more in-depth and quantitative research. This detailed analysis was beyond the scope of this research project, but could be further addressed and verified, in a next research project.

In recent years, the marketing and entrepreneurship literature has put significant emphasis on strategic orientations, like market orientation and entrepreneurial orientation. This research project makes a contribution, by bringing new insights about the value of dynamically aligning several strategic orientations. Both, MO and EO orientations are considered as complementary capabilities. In contrast to other authors, the proposed model capitalizes and leverages both orientations, to be beneficial for the creation of a sustainable competitive advantage along the innovation life cycle. However, further in-depth verification and investigation of internal and external moderating factors, is recommended. For example, it is important to study the impact of technology typologies, market characteristics and explaining differences, in how strategic capabilities evolve and how different strategies affect sustainable competitive advantage.

The research identified five dominant MBD capabilities, as building blocks: sensing, scaling, collaborating, capturing, leading; which need to be dynamically synchronised and aligned with internal and external factors. First, sensing opportunities, or the ability to identify and anticipate critical events and attractive business opportunities. Here, interesting next steps, could further study the specific sales activities and sales profiles, most suited along the innovation cycle, the roles and responsibilities of product and marketing leaders and how synergies among marketing and sales could be improved and leveraged. Second, scaling new lead offerings is defined as having the ability to scale over time, new product/service generations. One of the issues is planning and timing issues of those generations. Therefore, the multi-generation planning subject could further be clarified. Third, collaborating means, been able to effectively dialogue, work effectively together, trust each other and share. But the research indicated also that collaboration agreements need to be dynamically re-evaluated. Further research could study the challenges, drivers and the leadership prerequisites of a portfolio approach. Fourth, capturing business value is partially about capturing a fair amount of value for the organisation. Next steps could assess if a "stage gate process" could be instrumental, does not slow down and what metrics and key performance indicators could be used. Fifth, for the leading capability, several research streams appear to be attractive. Among others, more in-depth investigation and verification could be done on the leadership typologies, the better profiles, when to change and how to change leaders and followers. Further research could be conducted in single-industries, to rule out possible confounding effects, due to substantial industry-specific differences. Furthermore, a series of external and internal factors may influence the pace and rhythm of the ‘Prospecting to Accelerating’ transition phase and those factors could include for example strategic intent choices and strategic customer management approaches. To monitor the transformation process, guideposts or “stage gates” could be installed to navigate more successfully the “valley of trouble”. Additional research is essential to study and verify the impact of those factors.

The generalizability of the findings is limited to radical corporate ventures, inside established multinational organisations. An intriguing question is, if the findings are also applicable for independent ventures, which could represent a new interesting avenue of research. For many years, the marketing literature has popularised the value and the use of the marketing mix. This research has identified and proposes a strategic framework for the early time-into-market and MBD of B2B RCVs. The proposed MBD lead framework could be a useful tool and guide for practitioners during their early time-into-market adventures. It would be interesting to verify, if the framework is also applicable for other typologies of innovations and ventures. Another task would be to further validate the identified framework, through more in-depth quantitative empirical research. The research indicated that for many organisations, focus and discipline is a weakness. Therefore, impact/effort frameworks and prioritising capabilities and effectively de-averaging strategic initiatives, could be evaluated more in detail.

Conclusions

In this chapter, the major findings and final conclusions have been formulated, summarised and discussed. Next the theoretical and managerial implications have been covered. Finally, the limitations of this research project have been addressed and avenues for further research have been determined.

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Case selection and verification

	CoreCo	BioCo	SmartCo	StressCo	WoodCo	RiskCo
Industries	Telecom ICT	Automotive Chemicals	Utilities ICT	Agriculture Chemicals	Wood Chemicals	Financial Services
Business to Business	Yes	Yes	Yes	Yes	Yes	Yes
Corporate Venture	Yes	Yes	Yes	Yes	Yes	Yes
Knowledge Technology Intensive	Yes	Yes	Yes	Yes	Yes	Yes
Early MBD Phase	Yes	Yes	Yes	Yes	Yes	Yes
Renewal	Yes New Market Sector	Yes New Market Sector	Yes New Market Sector	Yes New Market Sector	Yes New Market Sector	Yes New Market Sector
Relatedness	Yes	Yes	Yes	Yes	Yes	Yes
Radical	Yes	Yes	Yes	Yes	Yes	Yes
Risk & Uncertainty	Yes	Yes	Yes	Yes	Yes	Yes
Resources	Yes	Yes	Yes	Yes	Yes	Yes
Position at Start of the Research	Stopped story	Early launch	Early launch	Early launch	Early launch	Success story
Intension to Collaborate & Share	Yes	Yes	Yes	Yes	Yes	Yes
Overall Criteria Fit	Yes	Yes	Yes	Yes	Yes	Yes

1. **Connecting Capabilities**

Connecting is about identifying new growth opportunities, selecting targets, and acting with agility & anticipating.

- Sensing: have antennas in position; continuously explore external and internal opportunities.
- Selecting: filter your knowledge, make choices, determine priorities, take actions.
- Decision making speed: act with agility = adaptability + speed and execute as a laser beam.

2. **Shaping Capabilities**

Shaping is tailoring and modularizing offerings and influencing the way the market develops

- Scoping: is about tailoring and bundling your offering and determining your positioning.
- Scaling: is modularizing, simplifying and optimizing the time to close your orders.
- Stretching: is about creating demand, directly and indirectly influencing the way the market develops.

3. **Collaborating Capabilities**

Collaborating starts by assessing and selecting the right partner at the right time and do the right things.

- Screening: assess fit and attractiveness of existing and new partners.
- Selecting: make sure the right partners are chosen and the right mix of partners are active.
- Sharing: walk the talk and exchange knowledge.

4. **Seizing Capabilities**

Seizing capabilities is about making the right decisions and executing with discipline

- Seizing: making the right decisions and executing with discipline.
- Spearheading: getting the time to close an order under control, to keep promises.
- Synchronizing: make sure the organisation is operationally in line with the market.

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Case 1	Table 6: Sensing capability	Score
RiskCo	Was able to have an extremely intimate customer understanding through their experienced local sales reps. A state of the art information system enabled sharing and fast decision making.	●
WoodCo	To complement their technological capabilities with essential market capabilities, they worked with partners and customers, within a win-win mind-set accepting to change conditions if required.	●
StressCo	After the initial success, the worldwide commercial sales force has been offering the new solutions in other areas confronted with severe climatological and ground conditions.	◕
SmartCo	The global sales teams identified a large number of utilities at first sight committed to invest in the smart grid and smart metering applications. The challenge was targeting the most promising.	◕
BioCo	The biodiesel opportunity went through several hypes impacting the continuation of interest of the engine manufactures and the petrochemical sector.	◑
CoreCo	Clearly too much internal focus. They were lacking field know-how and being unable to see the market window was closing. In addition they were confronted with slow decision making processes.	◔

Case 2	Table 7: Scaling capability	Score
RiskCo	From the beginning they have been offering highly specialized and selective offerings. Customisation could be done by the customer himself.	●
WoodCo	Identified very soon in the process which applications they would be offering. Over time, they remained focused with a laser beam on a limited number of product alternatives.	●
StressCo	After the initial deployment and confirmation that the innovative chemicals were generating the desired results, for a limited number of vegetables; the range and the geographic scope has been expanded.	◕
SmartCo	From the beginning a modular and flexible platform has been developed, commercialized; the offering was progressively expanded as new customers showed interest.	◑
BioCo	The offering was substantially superior to all possible alternative bio-based diesel catalysts with unique protection possibilities for engines. Basically, a single and generic solution was proposed.	◔
CoreCo	Too many new elements at the same time, adding complexity to the program and resulting in delays. An “all in one” approach appeared to be too ambitious.	◔

Case 3	Table 8: Collaborating capability	Score
RiskCo	Was able to establish excellent relationships with selected brokers. Concurrently they were very close to their customers and were offering customized solutions.	●
WoodCo	WoodCo had major gaps and weaknesses; however they were capable of closing the gap by teaming up with strong partners. They spend time searching, screening and selecting before partnering.	●
StressCo	The company believed strongly in a collaborative innovation process with existing new customers. It was a prerequisite to co-develop with distributors and farmers the correct solution.	●
SmartCo	The smart grid initiative was extremely complex and was calling for collaboration agreements among suppliers. Internal bureaucracy and interests slowed down decisions to collaborate effectively.	◔
BioCo	Turned a weakness in an opportunity by working closely together with a petrochemical committed and noncompeting supplier, who took care of the go to market.	◑
CoreCo	Long term agreements with suppliers, without flexibility in the execution. Emphasis on continuing relationships with existing customers instead of targeting new emerging service providers.	◔

Case 4	Table 9: Capturing capability	Score
RiskCo	Was able to grow the business with compelling valuable positions. A unique business model well-implemented and enabling fast decision making was a key strength.	●
WoodCo	Requested from the beginning from go-to-market partners a fee in order to verify their commitment for launching a breakthrough offering. The return on investment was a constant concern.	●
StressCo	Very outcome and bottom line driven organisation. However, they were committed to make long-term bets in the future while capitalising take on their technological strengths and market access.	◕
SmartCo	A strong technological driven management, spending a lot of time with technical departments. In addition their “going alone” approach instead of teaming up with partners slowed them down.	◑
BioCo	As the biodiesel market became less attractive and they had other internal attractive projects; BioCo lost interest in this adventure and moved back to the core business.	◑
CoreCo	The market evaporated at the core of the network and migrated towards the edge of the network. They were unable to change direction as the market was disappearing.	◔

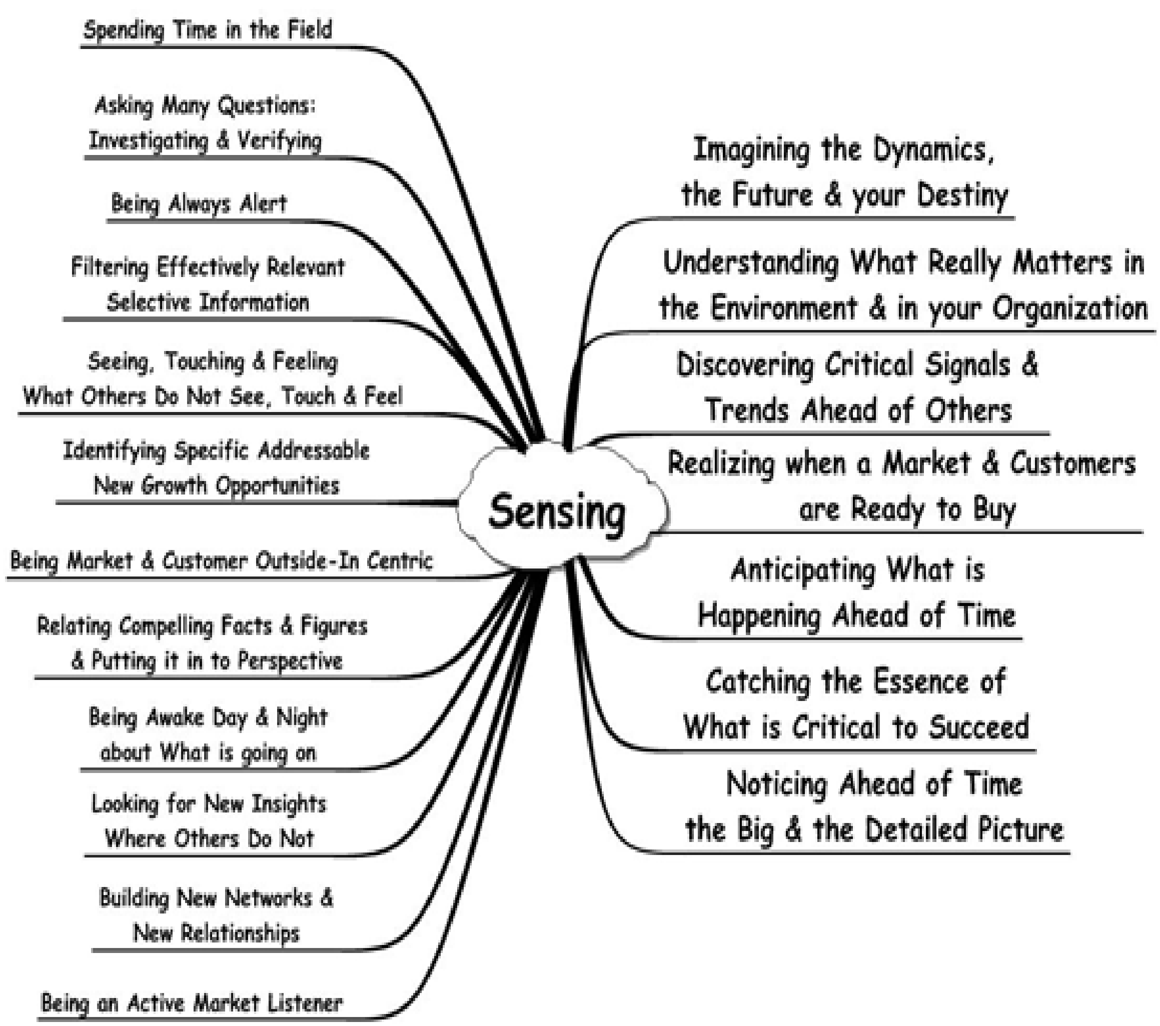
Case 5	Table 10: Leading capability	Score
RiskCo	RiskCo was extremely good at leveraging the testimonial value of customers. Their growth rate across Europe was impressive. However a new leader had to be attracted.	●
WoodCo	After a long period of experimentation in several markets, WoodCo finally succeeded to grow the business in one country, while at the same time, they continued exploring in emerging countries of interest.	●
StressCo	As part of their market and product leadership strategy and value discipline they have been customizing and adopting specific offerings for each market.	◑
SmartCo	Was not used to address the utility market; an extremely conservative market in comparison to the telecom market. Frequent change of corporate direction impacted their strategies.	◑
BioCo	After many years of developing and planning the corporate executives decided to focus on the core business. However, the project was restarted addressing other markets.	◔
CoreCo	Was committed to leapfrog the competition but remained too close to the existing customers. They attracted a lot of high potentials internally but lacked serial entrepreneurial veterans.	◔

To aid in the comparison of the different cases, "Harvey Balls" have been used to rate the impact of each capability on the outcome. As a preliminary attempt, a high-level estimation of the impact on the outcome of each case has been determined, based on discussions with managers in the second research phase. The assessment is based upon the extent to which those capabilities strengthen and have a positive impact on the outcome of the case. The degree of "impact on the outcome" is expressed in "Harvey Ball" notation on a linear scale from "unfavourable impact on outcome" to "very favourable impact on outcome" and with a median value "neutral impact on outcome".

◔ Unfavourable impact ◑ Neutral impact ◕ Favourable impact ● Very favourable.

Our fit assessments are derived from the qualitative research with more than 100 managers and experts and need to be further verified by more in-depth and quantitative research. This detailed analysis is beyond the scope of this research project.

Overview for "Sensing": WoodCo interview



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BD: Business Development

B2B: Business to Business

CAP: Capability

CVP: Customer Value Proposition

DCAP: Dynamic Capability

DMU: Decision Making Unit

EMO: Entrepreneurial Market Orientation

EO: Entrepreneurial Orientation

FFA: Fast Follower Advantage

FMA: First Mover Advantage

FPA: First Prover Advantage

FUD: Fear, Uncertainty and Doubt

GTM: Go-To-Market

ILC: Innovation Life Cycle

KBV: Knowledge Based View

MBD: Market and Business Development

MD: Market Development

MGO: Multi Generation Offerings

MO: Market Orientation

NPD: New Product Development

NPS: Net Promoter Score

OTD: Order To Delivery

PTA: Prospecting To Acceleration

QMI: Quick Market Intelligence

RBV: Resource Based View

RCV: Radical Corporate Venture

RFI: Resuest For Information

RFQ: Request For Quotation

SCA: Sustainable Competitive Advantage

SCAP: Strategic Capability

SCM: Strategic Customer Management

SHV: Shareholder Value

TIM: Time Into Market

TTC: Time To Close

TTM: Time To Market

TTP: Time To Prove

TTT: Time To Test

TTR: Time To Repeat

Definitions represent terms as they are used and defined in this report.

Abduction: The logical process by which a theoretical construct of one theory is utilised, to analyse or interpret the parameters of another theory.

Accelerating phase: This is the TIM, characterised by an accelerated growth evolution, due to repeat orders from customers, generating recurrent revenue streams.

Axial coding: Starting from open coding, phenomena are identified and the database is further investigated to identify causes, strategies and actions.

Axiology: Is concerned with values. A typical axiological question is, what things are worth persuing?

Capturing capability: Is the ability to effectively deliver competitive value propositions and be able to capture a fair amount of value for the organisation.

Cognition: The act or process of knowing.

Collaborating capability: Means been able to effectively dialogue, work together and dynamically leverage expertise and experience of critical stakeholders.

Construct validity: or the quality of the operationalization during the data collection phase. Verifies the research goals versus what it claims to investigate.

Cross-case analysis: Involves examining themes across cases to discern themes that are common to all cases.

Deduction: The logical process by which a conclusion is obtained, depending on specific assumptions.

Dynamic capability: Capacity of an organisation to purposefully create, extend, and modify its resource base. Or ability for: opportunity identification (‘sensing’) and investment in these opportunities (‘seizing’), leading to new positions (reconfiguring).

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Ecological validity: the extent to which conclusions might be generalized to contexts other than those in which data have been collected.

Entrepreneurial orientation: A capability by which firms can embark on equilibrium destroying initiatives or equilibrium restoring initiatives to leverage new opportunities.

Epistemology: Theory of knowledge. The branch of philosophy concerned with the study of the criteria by which we determine (i.e. know) what does and does not constitute valid knowledge.

External validability: or generalizability covers if the settings is valid in other settings.

Focus group: A qualitative explorative research method by involving and discussing with experts in a collective activity.

Holistic analysis: Approach of data analysis, examining the entire case and presenting descriptions and interpretations or assertions related to the whole case.

Induction: Induction is a means of evaluating data, so as to recognize and develop patterns; patterns that may validate hypotheses but not devise them.

Innovation capability: The ability and the capacity of an organisation to renew or rejuvenate covering discovery, incubation and commercialisation activities.

Internal validity: also called logical validity, refers to the relationships between findings. The extent to which the conclusions regarding cause and effect are warranted.

Judgemental rationality: Publically discussing claims about reality as we think it is. By comparatively evaluating existing arguments, we can arrive at reasoned, though provisional, judgements about what reality is objectively like.

Knowledge based view: Sees organisations as bundles of knowledge; heterogeneous knowledge is the main determinant of a sustained competitive advantage.

Lead champions: Lead champions are needed to orchestrate, to drive and monitor the progress, shape and educate a new market into being.

Lead customers: Lead customers are early adopters willing to pay the price and they want an offering that solves their specific problem.

Lead experts: Lead experts help decision makers make more informed and accurate decisions; they can repeatedly persuade and influence other people's behaviours.

Lead markets: Lead markets are high growth potential sectors and countries where public authorities and regulators can facilitate and stimulate industry-led innovation.

Lead offerings: A lead offering is a competitive bundle: a 'core' product with services and proprietary knowledge. Over time new generations and versions are added.

Lead partners: Lead partners constitute a collaborative network of complementors, distributors and suppliers with whom the organisation connects.

Lead users: Lead users can be defined as early offering users, who experience a strong need for a new offering earlier than the majority of the target market.

Leading capability: Leading or ambidextrous leadership is defined as been able to combine complementary entrepreneurial leadership disciplines.

Lock-in: inflexibility in market response to a new offering; once a dominant offering/technology begins to emerge, it becomes harder to change to another option.

Market orientation: Capability by which organisations are proactive while educating markets and customers (driving) or responsive to markets and customers (driven).

Marketing capability: Integrative processes designed to apply the collective knowledge of the firm to the market-related needs of the business.

Network externality: Concept that an offering's value to a customer changes as the number of users increases. This is a positive feedback mechanism.

Ontology: is the philosophical study of the nature of being, existence or reality as such, as well as the basic categories of being and their relations.

Open coding: Involves taking data and clustering or segmenting them into categories of information.

Organizational ambidexterity: An organisation's ability to be internally aligned and while simultaneously being adaptive to changes in the environment.

Organizational capability: Reflects the workforce's collective expertise and defines what an organisation does best, influenced by resources, processes and values.

Population validity: The extent to which conclusions might be generalized to other organisations and environments.

Prospecting phase: Is an area of testing, trailing, experimenting and essentially proving the customer value proposition; it is about getting testimonials.

Radical corporate venture: The focus of an RCV is on strategic renewal and profitable growth, pursuing related activities close to the core of the business; however the offerings are radical in nature, which could be related to the market, to the technology or to the business. Resources are primarily internal with a high degree of autonomy and complemented with other external expertise and experience.

Reciprocity: Addresses the need for the participants in the study to receive something in return for their willingness to be interviewed and provide information.

Reductionism: Can be defined as breaking down the research into small and fragmented parts that can be put together, like a puzzle, to establish a whole picture.

Reflexivity: Consciousness of the biases, values, and experiences that the researcher brings to a qualitative research study.

Reliability: refers to the absence of random error - what is intended to verify is actually being verified - enabling other researchers to come to the same conclusions .

Resource based view: The RBV assumes that organisations can be conceptualised as bundles of resources; that those resources are heterogeneously distributed across organisations, and that resource differences persist over time.

Retroduction: The logical process by which a point of view is utilized to devise a theory.

Scaling capability: Scaling new lead offerings is defined as having the ability to scale over time with discipline new product/service generations and versions.

Selective coding: Taking the central phenomenon and systematically relating it to other categories and validating the relationships.

Sensing capability: Sensing attractive opportunities or the ability to identify and anticipate attractive business opportunities while being alert and agile.

Strategic capability: A capability can only be strategic from a customer prospective, when there is a user need, unique and difficult to replicate.

Switching cost: The cost to a customer to change from one product/technology to another one; the more locked-in the higher the switching cost.

Theoretical sampling: Selecting study samples, based on the contribution to theory development; often combining homogeneous and heterogeneous samples; which are particularly suitable for illuminating relationships and logic among phenomena.

Transcendental realism: A concept stemming from the philosophy of Kant that implies individuals have a perfect understanding of the limitations of their own minds.

Triangulation: A process of using multiple perceptions to clarify meaning and verifying the repeatability of an interpretation Collecting data of the same phenomena at different times and places. Collecting different data of the same phenomena.

Within-case analysis: This type of analysis applies to a single case. In within-case analysis, the researcher analyses each case for themes.

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Research Project:
Commercializing Corporate Ventures:
During the early commercialization phase and from a capabilities perspective

Guy Bauwen
2009

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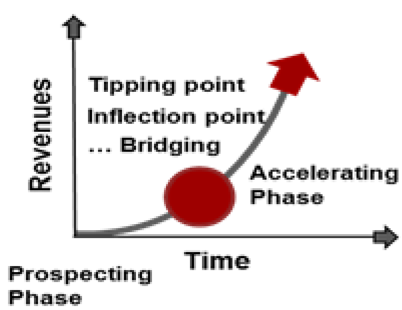
Research Scope, Objectives & Questions



Identify and **define** those **market and business development (MBD) capabilities** that enable **radical innovation ventures** in technology intensive industrial markets to **bridge** the **launch to growth** phase.

"Most are obsessed over the fuzzy front end and the time-to-market ... The real challenge is the fuzzier time-into-market" Baker, 1983.

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Scope Research Checkpoints

1. **Renewal:** Focus is on strategic renewal and/or new profitable growth and is undertaken for the purpose of strategic and economic objectives.
2. **Relatedness**: Involves an activity new to the organization which can be product or/and market related but situated close to the core business.
3. **Radical:** The offering should be drastically different than previous generations, with a substantial evolution of performance features.
4. **Risks and uncertainty:** Involves significant higher risks of failure and uncertainty, than the organization's base business.
5. **Resources:** Is conducted primarily internally, with a high degree of autonomy, while leveraging internal resources and external partners.

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Capabilities Assessment

1. Can you briefly describe your radical innovation project?

Context?

Company?

Customers?

Competitors?

Collaborators?

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Capabilities Assessment

2. Which MBD capabilities make a difference?

What are You

really great at doing

during the early commercialization?

that customers value and

are willing to pay for

and perceive as better than competitors.

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Capabilities Assessment

3. Did/do you leverage MBD capabilities from your parent, partners or peers?

4. What are major barriers or obstacles in improving, developing and transforming MBD capabilities?

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Capabilities Assessment

5. Ultimately do capabilities make a difference?

6. What are the major lessons learned?

7. What would you do differently? Why?

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Capabilities Assessment

8. Any final comments? Any useful material you can share?

9. Who else can/should I contact/interview?

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Capabilities Assessment

Next steps …

10. Can I meet you six months from now, to share, relate your insights with other inputs and discuss preliminary findings?

Thank you

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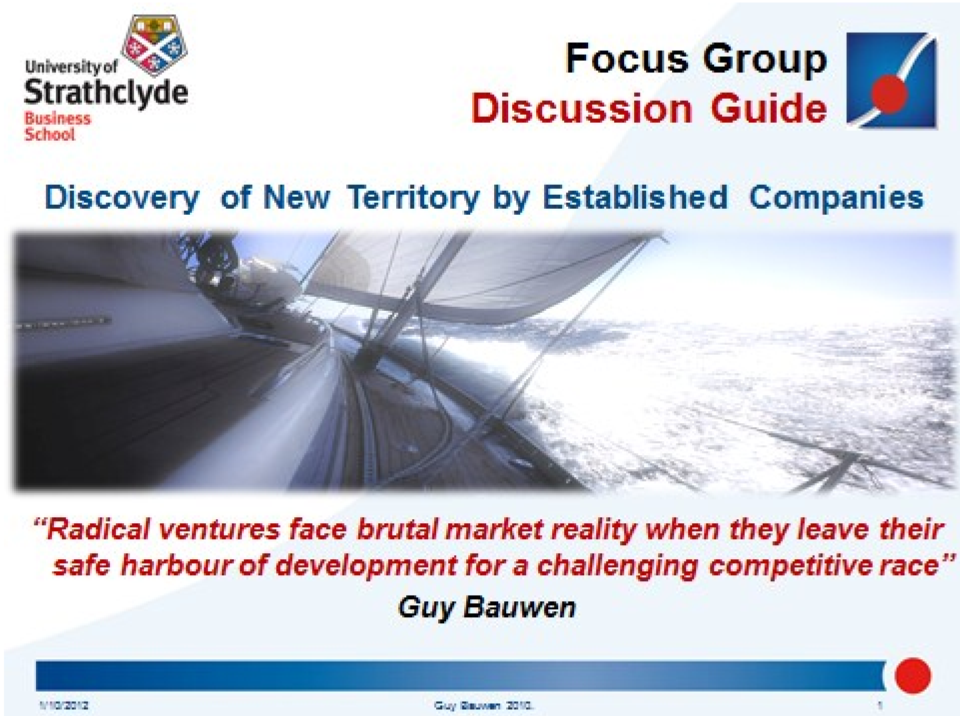
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Focus Group
Discussion Guide
Discovery of New Territory by Established Companies
"Radical ventures face brutal market reality when they leave their safe harbour of development for a challenging competitive race"
Guy Bauwen


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Agenda Today
Focus Group Research Framework
1. Introduction, objectives & methodology
2. Plenary discussion on preliminary research findings
3. Subgroups discuss the most critical capabilities
4. Plenary discussion of subgroup findings
5. Conclusions & lessons learned

Research …

In search of research & answers

Viewpoints of domain experts:

"The mortality rate among corporate ventures is high … many companies are withdrawing from experiments"

McGrath and Keil, 2007

"The importance of new product development is generally acknowledged, … too much emphasis is given to the early R&D stage … to the neglect of the later market launch & development phase" Baker, 1983

"Take-off is an important event for an innovation. The trough is a relatively new & under-researched phenomenon in marketing" Tellis, *2008*

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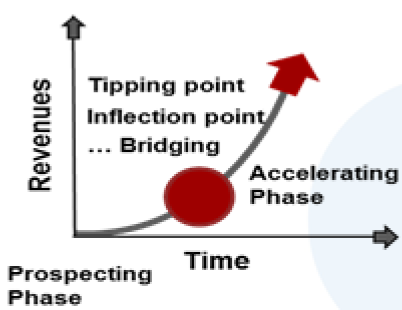
Research Questions



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Scope Research

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Strategic Capabilities Assessment

Which capabilities make a difference?

What are successful radical innovation ventures really great at doing during the early commercialization? that customers value and are willing to pay for and perceive as better than competitors.

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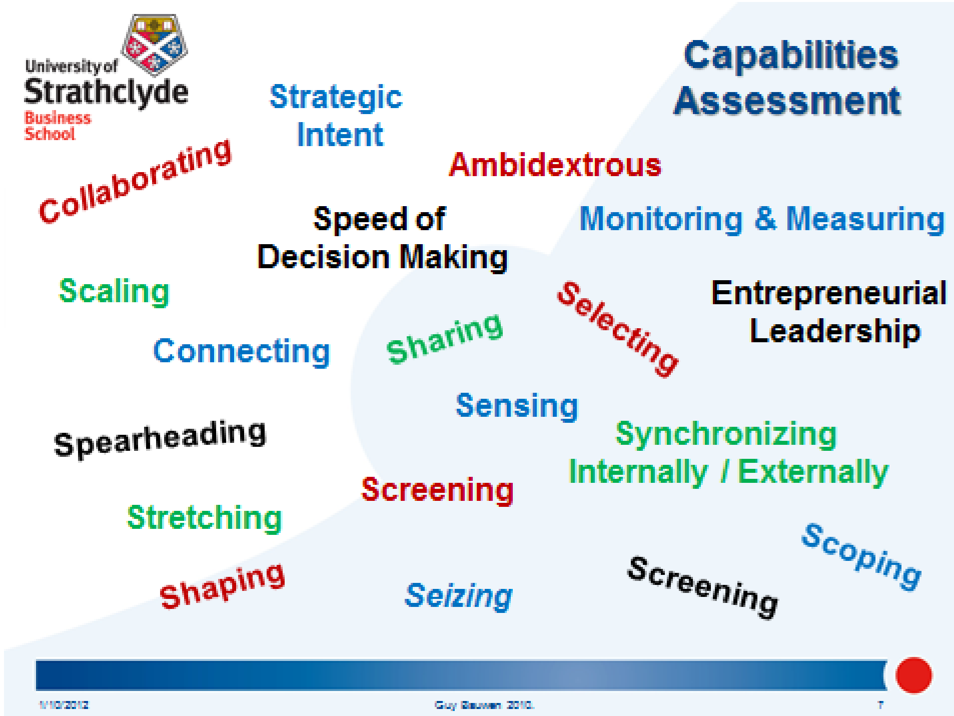
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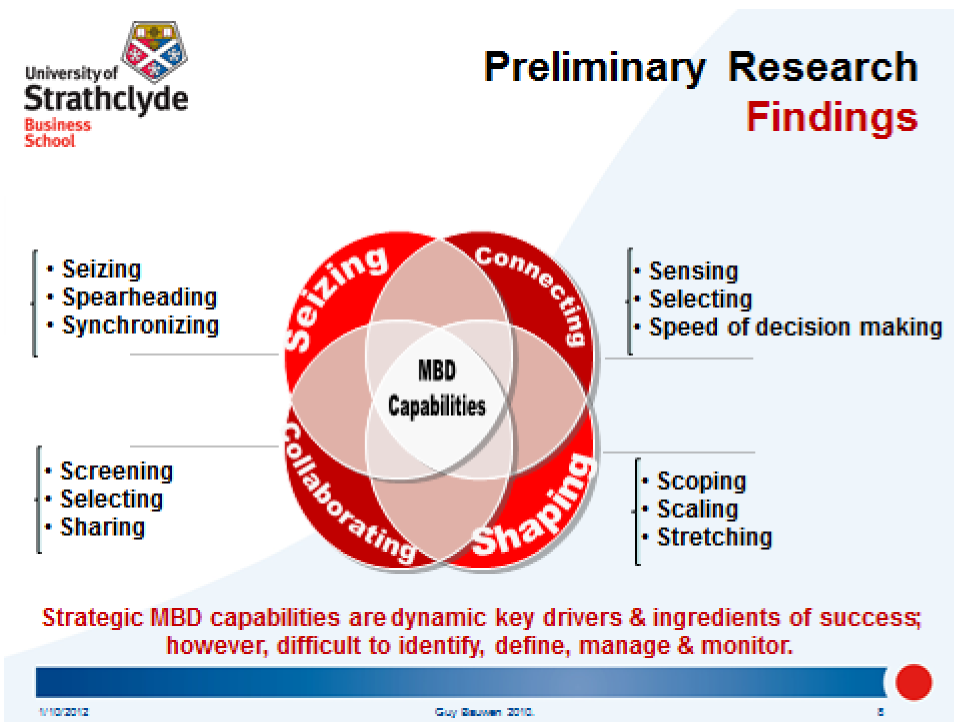
Capabilities Assessment
Strategic Intent
Collaborating
Ambidextrous
Speed of Decision Making
Monitoring & Measuring
Scaling
Entrepreneurial Leadership
Selecting
Connecting
Sharing
Sensing
Spearheading
Synchronizing Internally / Externally
Screening
Stretching
Scoping
Shaping
Seizing
Screening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Preliminary Research Findings
• Seizing
• Spearheading
• Synchronizing
Seizing
Connecting
MBD Capabilities
Collaborating
Shaping
• Sensing
• Selecting
• Speed of decision making
• Screening
• Selecting
• Sharing
• Scoping
• Scaling
• Stretching
Strategic MBD capabilities are dynamic key drivers & ingredients of success; however, difficult to identify, define, manage & monitor.


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Connecting Capabilities
"Our approach for capturing insights was inadequate for embryonic markets" Core Routing Manager
Connecting is about identifying new growth opportunities, selecting targets, and acting with agility & anticipating.
Sensing: have antennas in position; continuously explore external and internal opportunities.
Selecting: filter your knowledge, make choices, determine priorities, take actions.
Decision making speed: act with agility = adaptability + speed and execute as a laser beam.
"Connecting requires you are open to the world ... You don't wait until opportunities come to you" Terwiesch & Ulrich.
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Shaping Capabilities
"Be enthusiastic, show passion, but remain with both feet on the ground" Bio Wood manager.
Shaping is tailoring and modularizing offerings and influencing the way the market develops
Shaping
Growth is oxigen
Scoping: is about tailoring and bundling your offering and determining your positioning.
Scaling: is about modularizing, simplifying and optimizing the time to close your orders.
Stretching: is about creating demand, directly and indirectly influencing the way the market develops.
"In the battlefield there is no time for learning and watching, but for the right and the fastest execution" Core Routing manager.
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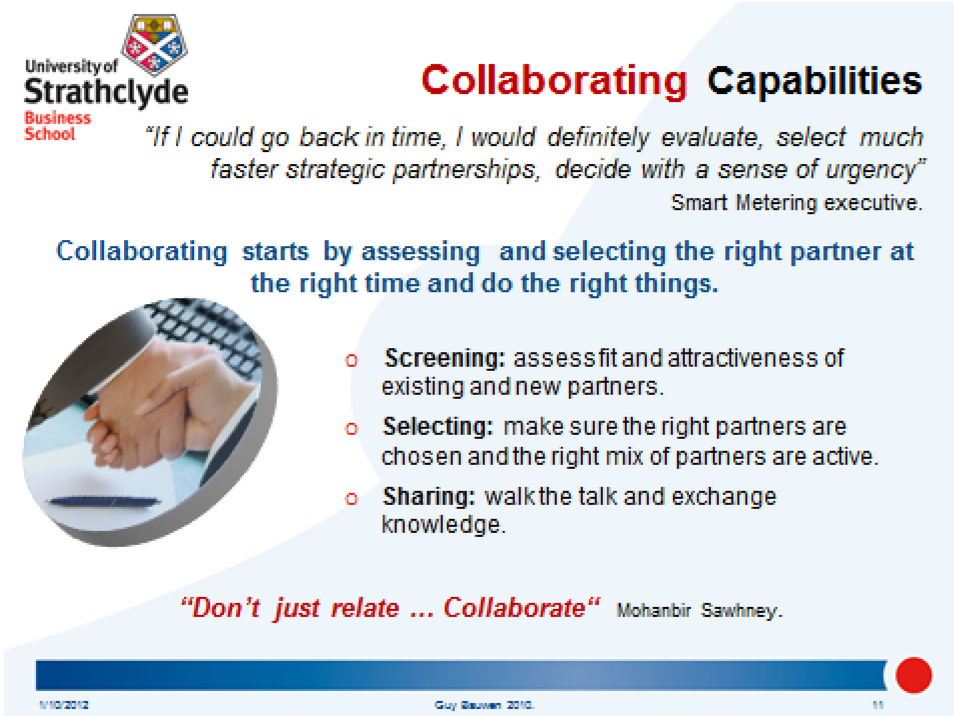
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Collaborating Capabilities
"If I could go back in time, I would definitely evaluate, select much faster strategic partnerships, decide with a sense of urgency"
Smart Metering executive.
Collaborating starts by assessing and selecting the right partner at the right time and do the right things.
Screening: assess fit and attractiveness of existing and new partners.
Selecting: make sure the right partners are chosen and the right mix of partners are active.
Sharing: walk the talk and exchange knowledge.
"Don't just relate … Collaborate" Mohanbir Sawhney.
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Seizing Capabilities
"As long as you have not elevated the discussion to a higher level of business talk, you remain in the technical doldrums"
Smart Metering manager.
Seizing capabilities is about making the right decisions and executing with discipline
Seizing: making the right decisions and executing with discipline.
Spearheading: getting the time to close an order under control, to keep promises.
Synchronizing: make sure the organization is operationally in line with the market.
"Measurements drive management decisions & actions" Govindarajan &Trimble.
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What are we really great at doing?

- **Sensing:** have antennas in position; continuously explore external and internal opportunities.
- **Selecting:** filter knowledge, make choices, determine priorities, take actions.
- **Decision making speed:** act with agility = adaptability + speed and execute as a laser beam.
- **Scoping:** is about tailoring and bundling our offering and determining your positioning.
- **Scaling:** is about modularizing, simplifying and optimizing the time to customer.
- **Stretching:** is about creating demand, directly and indirectly influencing the way the market develops.
- **Screening:** assess fit and attractiveness of existing and new partners.
- **Selecting:** make sure the right partners are chosen and the right mix of partners are active.
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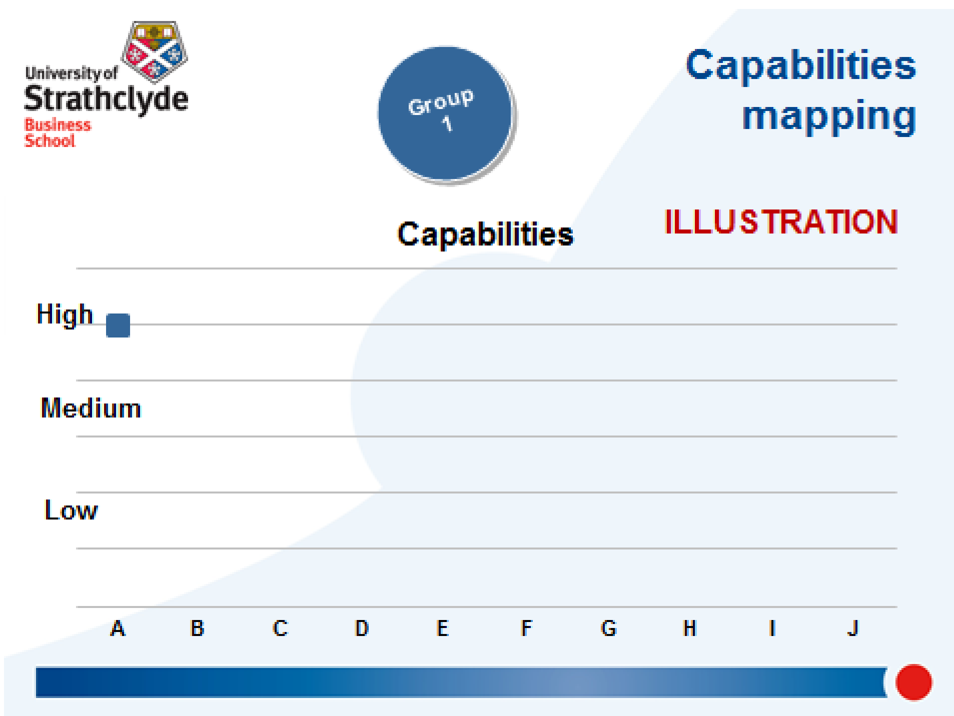
- **Spearheading:** getting the time to close an order under control, to keep promises.
- **Synchronizing:** make sure the organization is operationally in line with the market.



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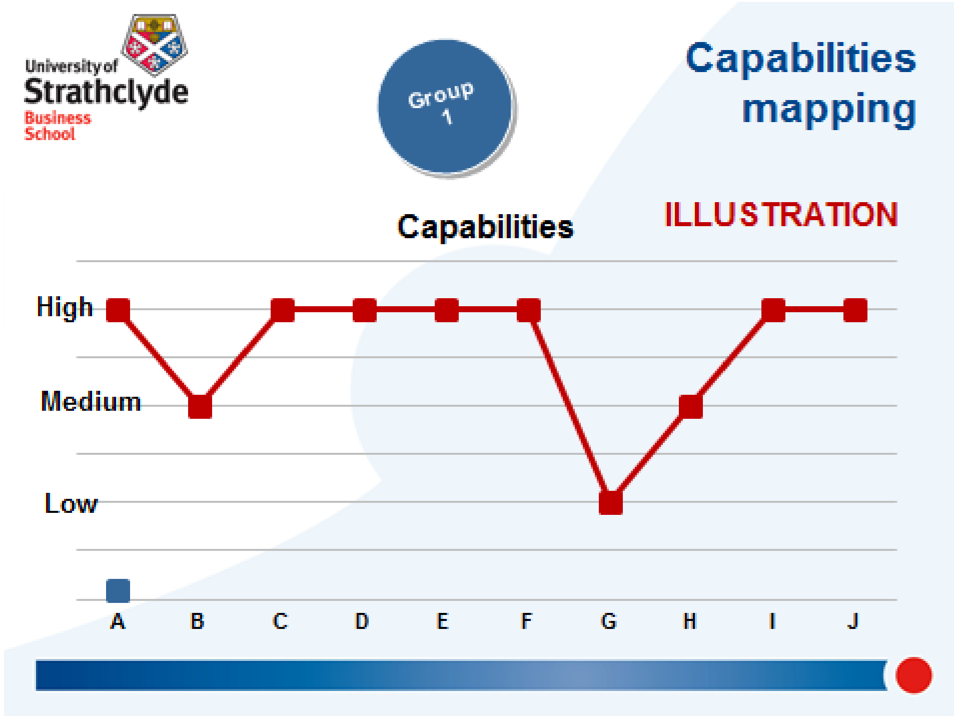
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Group 1
Capabilities mapping
ILLUSTRATION
Capabilities
High
Medium
Low
A
B
C
D
E
F
G
H
I
J


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ILLUSTRATION
Group 1
Capabilities mapping
Core Capabilities
1. .
2. .
3. .
4. .
5. .

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