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KNOWLEDGE ACQUISITION FOR A NEW BUSINESS MODEL CREATION AND ENABLING FACTORS

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Abstract

Title: Knowledge acquisition for a new business model creation and enabling factors

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Keywords: business model innovation, change, creation, knowledge, knowledge acquisition, absorptive capacity

Thesis purpose: To find out how organisation performs knowledge acquisition for a new business model creation and what factors enable it.

Methodology: The carried research is a case study based on a qualitative research design. The data collection procedure for this study has been a series of semi-structured and unstructured interviews conducted at the internship company. The interviewees and their relatively spread out positions within the company having varied responsibilities have provided the empirical data which being qualitative in nature are more elaborative and exploratory. This has meant discovery of enabling conditions for knowledge acquisition in the new business model creation and identification of the components of the process by which the organisation proceeded with the change and realized it.

Theoretical perspectives: Business model innovation and change theory (Zott et al. 2011), (Zott & Amit, 2007), (Teece, 2010), (Richardson, 2008), (Cavalcante et al., 2011), Organisational knowledge creation theory (Nonaka, 1994), (Nonaka & Krogh, 2009), Absorptive capacity (Cohen & Levinthal, 1990), (Zahra & George, 2002)

Conclusions: This thesis work builds on the seminal work of Nonaka (1994) in contributing to the adaptation and/or expansion of the organisational knowledge creation framework to the knowledge acquisition process during an organisation's new business model creation. Key components are identified in this dynamic interplay between knowledge acquisition and business model creation and modified framework is proposed.

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1. Introduction

In the introduction chapter the background to the thesis topic is presented and the practical problem that many companies face today is discussed. Further, the purpose and the research questions are introduced, focusing on the existing literature and highlighting the identified need for a further research with a more qualitative approach in the area of knowledge acquisition for a new business model creation. The chapter is concluded with a brief review of delimitations and key concepts.

1.1. Background

The environment a company operates in is in constant change due to various economic, social, technological, political and legal factors and is increasingly competitive as it is swiftly moving from the industrial economy to the innovation economy (Davenport et al., 2006). The survival of the company depends highly upon its alertness to notice the emergent opportunities and challenges. A company that cannot realize the occurring challenges and opportunities may face a serious crisis (Bekmezci, 2013). Thus, to be able to sustain and gain a competitive advantage in this ever changing environment companies need to continually reinvent themselves (Kuratko et al, 2011).

Innovation and selection of differentiated strategies requires the reassessment of the factors that industry has been competing for, as well as necessitate the restricting of market boundaries (Bekmezci, 2013). It is especially relevant for firms which have been successful for some time and is thus prone to the risk of failure due to the old way of doing business (Doz & Kosonen, 2010). Therefore, an increased interest in a business model concept has emerged among scholars and practitioners to explain a company's value creation, performance, and competitive advantage in these turbulent and increasingly entrepreneurial environments (Arend, 2013). Instead of complying with the environmental alterations changing a business model is what can make a difference (Bekmezci, 2013).

There is no doubt that business model change requires abandoning the traditional methods and instead implementing various new approaches (Chakravorty, 2010). However, a new business model can be of crucial importance as it may not only help companies communicate

how to manage new structures but may also more generally inform how to deal with the greater complexity (Arend, 2013). Business model approach therefore enables companies to fundamentally change the way they organize and engage in economic exchanges, both within and across firm and industry boundaries (Zott & Amit, 2007), whereas a successful business model change may provide a sustainable competitive advantage in a new business environment (Malhotra, 2000). As the competitive environment evolves it is obvious that a business model requires constant vigilance and it needs to be adapted, strengthened or changed over time (Euchner & Ganguly, 2014) in order to sustain or maximize its value creation and value capture potential (Osterwalder & Pigneur, 2010). Thus, a company's capability to shape, adapt, and renew the underlying business model becomes a mean of survival.

Changing a business model means 'rethinking the business' and finding a better, more efficient and a greater value-creating business model (Malhotra, 2000). Therefore, a business model change raises questions about how organisation processes and, more importantly, creates new knowledge (Nonaka, 1994), which accordingly increases the relevance of knowledge acquisition. A firm's innovation capability depends on its existing knowledge base, however the process of creating and capturing value in new ways often requires companies to open up their organisational boundaries and tap into external sources to acquire new knowledge (Denicolai et al., 2014; Berchicci, 2012). Therefore, company's capability to change its business model can also be improved by getting access to the external knowledge through the external relationships and networks (Ferrerias-Méndez et al., 2015).

The acquisition and integration of external knowledge allows a company to develop new knowledge and thereby close internal knowledge gaps and external competitive gaps. The use of external knowledge also diminishes the risk of an over reliance on internal knowledge and protects the company from learning traps (Purcell & McGrath, 2013). Thus, it is considered that the exploitation of external knowledge sources can play a significant role in an organisation's innovation performance (Ferrerias-Méndez et al., 2015), whereas value creation and capture through the external knowledge can contribute to successful business model change (Denicolai, 2014). The accumulation of knowledge through learning constitutes a driving force in the development and growth of firms (Penrose, 1959; Spender & Grant, 1996) as knowledge acquisition opens new 'productive opportunities' (Penrose, 1959) and enhances the firm's ability to exploit these opportunities (Renko, Autio & Sapienza, 2001, p. 588).

1.2. Problem Discussion

For the last two decades, the notion of a business model has been extensively studied by a large number of scholars (Timmers, 1998; Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Morris et al, 2005; Johnson, Christensen & Kagermann, 2008; Casadesus-Masanell & Ricart, 2010; Teece, 2010) whereas over the last five years a substantial focus among scholars and practitioners was given to business model innovation (Giesen et al, 2007; Chesbrough, 2010; Gambardella & McGahan, 2010; Bekmezci, 2013; Abdelkafi et al, 2013; Richter, 2013), which, according to Euchner & Ganguly (2014), was largely driven by the tremendous returns that companies such as Netflix, Dell and the Apple iTunes generated due to new business model development.

Business model stands as a cognitive structure providing a theory of how to set boundaries to a company and how to create value, as well as how to organize its internal structure and governance (Doz & Kosonen, 2010). Cavalcante et al. (2011) mentions core repeated standard processes within a company and its business model to be direct abstraction of the same. There needs to be a balance between the stabilising forces and the scope of flexibility within the business model which will allow it to change. As mentioned, there have been many synonymous terms for the business model change used in management literature, for example business model innovation, renewal and transformation. A business model change can however come with or without innovation but with different characteristics. Cavalcante et al. (2011), distinguishes among these types and presents four types of business model change - creation, extension, revision and termination. However they also note that a change in a business model is considered when organisation's core processes are impacted. We will in this paper adopt the concept of a business model change and align to these key categories. The creation of the model is the initial phase requiring various adjustments to fit into a viable business. Various challenges present themselves in the form of customer acceptance, market selection, organisational coordination issues and employee enthusiasm (Davidson and Klofsten, 2003, Cavalcante et al. 2011). Business model extension happens when existing core processes are expanded or new ones are added to them. This is the desire to enlarge the organisation's existing business and grow into additional commercial opportunities (Cavalcante et al. 2011). Sosna et al. (2010) points out the possible threat of obsolescence to an organisation's business model or the loss of its effectiveness or its products/services not being in alignment with customer needs. In that case a business model revision is needed, when some existing core processes get replaced with

new ones that tries to do business in a new different way. Business model termination is closing down a business unit or the company as a whole. (Cavalcante et al. 2011).

The key categories of a business model change (creation, extension, revision and termination) are not mutually exclusive and go hand-in-hand (Cavalcante et al. 2011). However the phases we are more interested in are the new business model creation and revision. These are the two intertwined phases when knowledge acquisition becomes most vital. As pointed out earlier, the initial phase requires assessing and reassessing customer needs and organisational operations, accordingly adjusting and revising the business model. And during this phase the role of knowledge is critical in shaping of the operational boundaries and defining the working business model. Also it is important to point out that the object of research in this case is an existing organisation with its own successful business model in place. The incumbent processes add to the conditions as enablers or barriers.

Thus, sensing the need to reinvent the business model is an essential first step but continuing with the implementation is faced with number of challenges. Thus, several researchers (Chesbrough & Rosenbloom, 2002; Storbacka, 2010; Rodriguez et al, 2013) conducted studies on barriers to a business model change. According to the findings of Storbacka (2010), one of the key barriers to a business model innovation is a lack of the right people with the right competence and skills needed for a business model innovation. Chesbrough and Rosenbloom (2002) identify a cognitive barrier, which strongly influences the information that is used for corporate decisions. O'Reilly and Tushman (2004) in Richter (2013) claim that the ability of executives and senior staff to understand the needs of very different businesses is most crucial for companies to be successful in business model innovation. Therefore, business model change requires new solutions and new perspectives, which means that the company needs a new know-how.

Renko, Autio and Sapienza (2001) claim that acquiring new knowledge increases product development in three ways: (1) by enhancing the breadth and depth of relation-specific knowledge available to the firm, thereby increasing the potential for new innovative combinations; (2) by enhancing the speed of product development through reduced development cycles; (3) by increasing the willingness to develop new products for its key customer. Furthermore, richer and more varied knowledge can also be used to upgrade products, to increase customer specialisation, and to understand competing and complementary technologies, thus enhancing the distinctiveness of the focal firm's technology (Renko, Autio & Sapienza, 2001).

The literature suggests external partnerships as one of the main paths to accumulate new know-how, create openness to innovation and improve business model innovation capabilities. Concerning external partnerships it is argued that it is a good way to face complexity of the challenge and reduce risks for the individual company (Richter, 2013). External knowledge acquisition also shortens product development cycles, leading, *ceteris paribus*, to a greater rate of new product introductions (Renko, Autio & Sapienza, 2001). Thus, to find new ideas and to take the idea development to the next levels companies must strive to become increasingly involved in networks and new kinds of partnerships (Storbacka, 2010).

However, although knowledge acquisition has been studied by a number of researchers, some of them addressed the outsourcing of research and development activities as an instrument to acquire external technological knowledge for the product innovation (Grimpe & Kaiser, 2010; Annique, 2010; Berchicci, 2012; Renicolai et al, 2014; Mendez et al, 2014; Arvantis et al, 2015), whereas others focused more on knowledge management within the organisation and how different mechanisms affect organisation's ability to create, retain and transfer knowledge (Argote, McEvily & Ray Reagans, 2003; Denicolai et al, 2014), the knowledge acquisition for a new business model creation has remained an insufficiently studied object of research, even though the need for a new know-how development for the value creation is considered as one of the key barriers to the business model change (Storbacka, 2010).

Furthermore, Arend (2013) points out the need for more case study research of organisations that have attempted to change their business models and that could be later used by practitioners to determine better processes for a business model change.

To fill this gap in the existing literature, we therefore would like to probe further into the dynamics at play between these two constructs – knowledge acquisition and business model change – and arrive at our research questions:

RESEARCH QUESTIONS

1. How does an organisation perform knowledge acquisition for a new business model creation?
2. What are the factors influencing an organisation's knowledge acquisition for a new business model creation?

1.3. Purpose

The purpose of this paper is to contribute to the present literature and to better understand how the existing organisation performs knowledge acquisition for a new business model creation we employ a case study research, which, according to Bromley (1990, p.302) is a “systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest”.

A case study research is therefore a suitable approach in order to experience firsthand how the company positions itself in handling the transformation of their business model or to develop an entirely new one.

In this regard, The Company can be seen as a good example to examine the phenomena of knowledge acquisition for a new business model creation. The entire energy sector is going through fundamental transformation process towards a more sustainable production based on renewable energies and customer-centric energy solutions. Consequently, utilities face a massive challenge to find new ways of creating, delivering, and capturing value from renewable energy technologies and thus are forced to renew and change the existing business models (Richter, 2013)

Companies like the Company have to adapt their business models to remain competitive in the new energy landscape (Richter, 2012), however research shows that utilities severely struggle to develop new value propositions for customer side business models (Richter, 2013). The literature shows that utilities need to improve their business model innovation capabilities to be able to pro-actively respond to these new business opportunities. They need to develop the ability to adapt and reconfigure their assets and knowledge more quickly according to changes in their external environment. Hence, one of the suggested approaches to improve utilities’ business model innovation capabilities is through knowledge development and external partnerships (Richter, 2013).

Since the Company is moving from the commodity business to service focused company, offering sustainable energy solutions, it is a suitable case to explore how external knowledge acquisition is performed to create a new business model.

1.4. Delimitations

- The study is focused on the energy industry, representative of slower-moving, mature industries.
- The research is based on a single case study, representative for utility company which operates in over 30 countries.
- The subject of the case study is a company's department in southern Sweden.

1.5. Key Concepts

In accordance to the purpose of the thesis and the research we have defined a set of key concepts which had to be defined and thoroughly examined before empirical data collection and analysis to establish justified conclusions. The selected key concepts are:

- Business model
- Business model change
- Knowledge
- Knowledge Acquisition
- Absorptive Capacity

2. Theoretical Frame of Reference

This chapter presents the theoretical framework that the authors have utilized throughout the thesis. Firstly, an extensive introduction of the concept of a business model is provided, which is followed by the presentation of a business model change concept. Secondly, a literature review about the notion of knowledge and external knowledge acquisition is discussed. Finally, the theoretical framework is concluded with an introduction of the concept of absorptive capacity as organisation's ability to utilize external knowledge. Thus, the theoretical framework is established as a source of inspiration for the empirical research as well as a tool and a basis for the data analysis and conclusions provided in the below chapters.

2.1. Business Model

The business model of a company is something which defines its operations including revenue, cost structures and profits to create and deliver value to customers (Teece, 2010). This essentially denotes its character and broadly the way it does business. However, the conceptual distinction of business model to some related terms like organisational structures, networked enterprises and value chain are not very prominent (Zott, C. et. al, 2011). There doesn't exist any consensus on a particular definition as is evident in some interpretations where it is a conceptual tool or model (George & Bock, 2009; Osterwalder, 2004; Osterwalder, Pigneur, & Tucci, 2005), or, it is the customers, the value and the revenue structure (Teece, 2010) or a strategic construct (Richardson, 2008; McGrath, 2010) and then to some it is the very framework (Afuah, 2004) based on which a firm operates in its specific ecosystem (Teece, 2010). For a company to be successful in its existing business or new ventures or potential partnerships it is essential to understand what a business model is, to measure its performance (Zott & Amit, 2007, 2008) and competitive advantage (Teece, 2007; Christensen, 2001) in some way for the firm and for the potential partners and competitors.

‘There is widespread acknowledgement—implicit and explicit—that the business model is a new unit of analysis that is distinct from the product, firm, industry, or network; it is centered on a focal firm, but its boundaries are wider than those of the firm. Business models emphasize a system-level, holistic approach to explaining how firms “do business”. The activities of a focal firm and its partners play an important role in the

various conceptualizations of business models. Business models also seek to explain both value creation and value capture' (Zott et. al, 2011, p.1020).

Teece (2010, p. 191) states 'the essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit'. From an organisation's perspective, business model defines how it creates, delivers and captures value (Osterwalder et al., 2005). Zott et al. (2011), suggest three concepts that might ensure distinct consideration, such as business model archetypes, business model as activity system, and business model as cost/revenue architecture. The expansion of organisation's activities and boundaries, its way of doing business, creating and capturing value are some of the representations of business model and emerging as a prominent analytical tool (Zott et al., 2011).

Osterwalder and Pigneur (2002) conceptualize four basic elements of business model:

- value proposition: the company offering to the customers either products or services;
- customer interface: the channel through which value is delivered to the customers;
- infrastructure: the company's resources and capabilities in creating the value;
- revenue model: the revenues and various costs associated with creation/delivery of the value to the customers.

Considering these broad parts of the business model or further granularised into consumption chain (MacMillan & McGrath, 1997) the company then needs to decide in which specific area to innovate. It is also worthwhile to understand the inter-relatedness of these areas and the effect of changes in one area leading to modifications in the other which can then be extrapolated to multiple business models being simultaneously pursued by a company and the effect they have on each other (Osterwalder & Pigneur, 2002).

There is presence of common themes around the concept of a business model in the management literature but there exist a lot of variations (Richardson, 2008; Zott et. al., 2011). From basic few components to extensive subdivisions of operations and functionalities constitute to the range of variability in the business model construct Richardson (2008). Like Osterwalder et al. (2002), Hamel (2000) identifies four components - core strategy, strategic resources, the value network and the customer interface. Peterovic et al. (2001), goes on to divide the concept into seven components. Richardson (2008) provides a consolidated work into these different concepts and in the context of strategy execution by the organisation presents the business model framework comprising of value proposition, value creation and

delivery system, value capture. We have adopted this framework for our paper as this provides an ideal comprehensive model which is appropriate to analyze our project company.

Value proposition: ‘The value proposition generally refers to the reasons a customer will value a firm’s (proposed) offering.’ (Richardson, 2008, p.139). This also includes the strategic execution which will win over customers in a competitive environment. While aiming for this competitive advantage the target customer forms an integral component of the proposed value. The nature, behaviour and the needs of the customer will in turn determine the value offered.

The value creation and delivery system: This takes into account the organisation’s capabilities and resources and its position in the value network of suppliers, partners and customers. Activities should be designed to match the value proposition and its delivery should be effective taking into account the various resources and capabilities of the organisation. To develop the competitive advantage, the organisation has to strategically allocate its activities in alignment with its value proposition and also sustain them eventually (Richardson, 2008).

Value capture: This essentially talks about the economics of business, the cost and revenue model, margins and financial condition of the organisation. The economic model and the revenue model together contribute to an organisation making money. Along with delivering value for the customer the firm needs to capture it for itself (Richardson, 2008).

The business model concept enables the examination and comparison of markets and companies in a structured way, thus, providing the basis for analysis and the identification of critical success factors (Boehnke, 2008; Richter, 2013). These emerging themes could serve as important catalysts for a more unified study of business models (Richter 2013). The field is moving toward conceptual consolidation, which is significant in order to pave the way for more cumulative research on business models (Zott et. al, 2011; Richardson, 2008). There is a need for further research in the development of theoretical foundation of the business model in order to establish conceptual distinction from other related concepts such as new organisational form, ecosystems, activity systems, and value chains or value networks (Zott et. al, 2011).

Theoretical development of the business model building blocks, its antecedents and consequences, and the mechanisms through which it works is recommended. There is relevance of our research in the area of a business model, and a clear need for empirical studies that could support theoretical development of the concept. It is also very important that the thesis includes a clear definition of the business model concept adopted in the study. The emerging themes also

relate to our project company, which is currently focusing on value creation and thus is in a process of a business model change.

2.2. Business Model Change

The idea of a business model can get ingrained in a company quite deeply. Following a particular ‘dominant logic’ can lead firms to miss potentially valuable uses of technology which do not fit their current business model (Chesbrough, 2010). Scholars (Chesbrough, 2010, Richter, 2013) claim that business model change is vitally important, and yet very difficult to achieve. A new business model development can provide as much value to the company as a new and innovative technology development, especially in the industries where traditional business model are in real crisis and are no longer able to provide sufficient amount of value to the customers (Chesbrough, 2010). As noted in chapter 1.2, in management literatures there have been used many synonymous terms for business model change, for example business model innovation, renewal, transformation. Business model innovation is broadly perceived as an innovation which is disruptive in nature in a way that it creates new market for the company or affects the competitive advantage of its competitors (Euchner & Ganguly, 2014). Case studies of Dell or Netflix show how those companies changed the dynamics of their respective industry with business model innovation. However business model change in general can happen with or without innovation. We will use the term business model change which have been categorised as per types creation, extension, revision and termination (Cavalcante et al., 2011). We will use this as an umbrella term to cover business model innovation or renewal or transformation.

Richter (2012) has found that utilities to a great degree struggle to develop and deliver value proposition (Richter, 2012, p.1231), which is a concern for the energy sector. However, new business model configurations often conflict with the existing business, thus managers and executives are likely to resist to business model experimentation and change (Amit & Zott, 2001). Even after realization of the need to reinvent the business model it can be difficult to implement it. There are actionable steps that a CEO and a corporate leadership team can take to foster a more purposive and more strategic evolution (Doz & Kosonen, 2010) and adaptation of business models, making successful business model transformation more likely. Amit & Zott (2001) discuss the novelty, efficiency and lock-in complementarities as key aspects of business model change. The scholars highlight that managers recognize the right business model,

however its development and implementation is resisted due to the conflicts emerging from current business model and more traditional configurations of firm's assets. Thus, managers are not willing to experiment with the business model as this might threaten the present value these individuals are bringing to the company (Chesbrough, 2010). However, as O'Reilly & Tushman (2004) state, in order to be successful at two frontiers at the same time, as in the case of the internship company when it is splitting into commodity and energy solution based businesses with different business models, it is crucial to understand the needs of these very different undertakings on an executive and senior level. The search for a new business model often requires an extended period of coexistence between the current and new models. Knowing when to shift resources from the former to the latter is a delicate balancing act, and rife with possible career consequences for the managers involved (Chesbrough, 2010).

One of the key factors affecting business model change is the culture of the organisation that needs time to find ways to embrace the new model, while maintaining the effectiveness of the current business model until the new one is ready to take over completely (Chesbrough, 2010). There is a shared understanding among scholars that organisational culture is one of the major barriers that companies face in creating and leveraging knowledge assets (Rodriguez, 2013).

Therefore, as an alternative scholars talk about separate venture or a business unit which is vital for a company's ability to exploit the current business model, but also in parallel exploring and commercializing new technologies (Richter, 2012). Gibson and Birkinshaw (2004) also argues that a separate venture is independent from the "old ways" of doing business in the parent organisation and thereby more flexible to develop its own structure that is most suitable to exploit new opportunities. Arend (2013) also supports the idea that the complexity can likely be managed not by evolving the existing business model but by taking a revolutionary approach and starting a new venture, where a firm is able to start from a clean state and thus the organisation entails the fewest constraints and internal barriers from the parent company for creating a more open environment for new ideas to appear (Bessant et al, 2004) and a coherent processes of innovation (Bock et al., 2012; Hacklin & Wallnöfer, 2012).

'Business model innovation can itself be a pathway to competitive advantage if the model is sufficiently differentiated and hard to replicate for incumbents and new entrants alike. New business models can themselves represent a form of innovation. Selecting, adjusting and/or improving business models is a complex art. Good designs are likely to

be highly situational, and the design process is likely to involve iterative processes.’ (Teece, 2010 p.176).

Business strategy therefore plays a significant role in shaping new innovation into how companies are to operate. Strategic agility is critical to transform and innovate business models. Sharpening strategic sensitivity can make the company both more precise and accurate in the perceptions its executives have both of its (external) ecosystem and of its (internal) activity system. The vectors of leadership unity are all determinants of a top team’s ability to reach collective commitments and elicit true engagement toward them, among its members and from other members of the organisation. Resource fluidity catalyses transformation and determines a successful business model renewal (Doz & Kosonen, 2010).

Agility is, in terms of sensing opportunities, in a driven and inspiring leadership with flexibility and speed in resource allocation and utilisation. The new business model in the internship company requires understanding of external ecosystem and responding adequately with adapted internal activity system and a modified business model.

Schoettl and Lehmann-Ortega (2010) notes in Richter (2012, p. 2485) that company’s ‘first need to decide in which part of the value chain they want to engage before entering the development of new business models.’ Also equally important is to understand own business model for a company to effectively lead its change (Teece, 2010).

‘Great business models can reshape industries and drive spectacular growth. Yet many companies find business-model innovation difficult. Few companies understand their existing business model well enough—the premise behind its development, its natural interdependencies, and its strengths and limitations. So they don’t know when they can leverage their core business and when success requires a new business model’ (Johnson, Christensen, and Kagermann, 2008).

They suggest identifying the success factors of the existing business model, sensing the need for business model change and evaluating the worth of the effort so that it leads to a tangible shift in the industry or the market. Often companies can create new products which can disrupt competitors without changing their business model (Euchner & Ganguly, 2014). But certain strategic circumstances however do require complete overhaul of the existing business model, as Johnson, Christensen, and Kagermann (2008) observed some critical circumstances where there is opportunity:

- for disruptive innovation to cater to customer needs in a better cost effective way;
- to utilize a brand new technology or leverage an existing one;
- to nullify low end disruptive threats;
- to nullify threat of competition.

Innovations with time commoditise (Johnson et. al., 2008) and loses the appeal as a unique customer value proposition. Therefore business model change specifically business model innovation stemming from a particular product innovation requires to be revisited time and again evaluating its need in the context of the current and trending markets.

2.3. Knowledge

The management of knowledge and its utilisation to create value can be in two ways: inputs transformed to outputs having greater value than inputs; moving products from one market to another without physical transformation across place (trade) or time (speculation), (Grant, 1996). Among all the resources of an organisation, knowledge is arguably the most important (Spender, 1996) and thus critical to an organisation's success. There are certain characteristics of knowledge in the context of organisation that are important to explore.

The notion of tacit and explicit knowledge in organisational context is the building block of organisational knowledge creation theory (Nonaka, 1994, Grant 1996). Tacit knowledge is revealed through its application and explicit knowledge is revealed by its communication. The transferability of either of these knowledges becomes important across organisations and within it (Grant, 1996). Codifying tacit knowledge is difficult and it only manifests itself through its application and is acquired with time, experience and practice, its transfer therefore between people becomes problematic and expensive both in terms of time and money (Kogut and Zander, 1992). It therefore becomes imperative to identify the type of knowledge the firm wants to create or appropriate.

Organisational knowledge creation theory synthesizes "knowledge assets" aspects in the knowledge-based view (e.g., Grant 1996, De Carolis and Deeds 1999) and the theory of dynamic capabilities (e.g., Teece et al. 1997, Helfat 1997) to show how new knowledge is created by interaction between tacit and explicit forms of knowledge. 'Tacit and explicit knowledge can be conceptually distinguished along a continuum, and knowledge conversion

explains, theoretically and empirically, the interaction between tacit and explicit forms of knowledge' (Nonaka and Krogh, 2009, p.636).

Both these forms however dynamically interact with each other. Nonaka (1994) proposed the SECI processes model (Socialization, Externalization, Combination, and Internalization) (see Figure 1) which put forward four modes of knowledge conversion: tacit to tacit, tacit to explicit, explicit to explicit and explicit to tacit respectively.

	Tacit knowledge	<i>To</i>	Explicit knowledge
Tacit knowledge <i>From</i>	Socialization		Externalization
Explicit knowledge	Internalization		Combination

Figure 1: *Modes of the Knowledge Creation by Nonaka (1994)*

Organisations play a key role in mobilising tacit knowledge held by individuals. Thus, Nonaka (1994) proposes a “spiral” model of knowledge creation based on the interplay of these SECI processes. In organisational context this was illustrated as team building in socialization phase, communication, coordination of team in combination phase, ‘learning by doing’ in internalization phase and amplification of knowledge in externalization phase. Thus the mutual interplay of tacit and explicit knowledge adds value to both and increases action (Nonaka 1991, 1994; Nonaka & Takeuchi 1995). ‘Knowledge loses some of its “tacitness” through the process of externalization’ (Nonaka & Krogh, 2009 p.638, p. 642) and it becomes less costly to share with others (Grant, 1996). To expand knowledge spread beyond the individual and across the organisation, knowledge conversion specifically tacit to explicit is important (Nonaka & Krogh, 2009).

Nonaka (1994) further explores the notion of knowledge and provides a framework for organisational knowledge creation in a corporate setting. The model consists of two major dimensions: (1) the organisational knowledge creation process and factors that determine this process, as well as (2) enabling conditions, which trigger the organisational knowledge creation. Nonaka’s model representing organisational knowledge creation process can be seen in the below Figure 2.

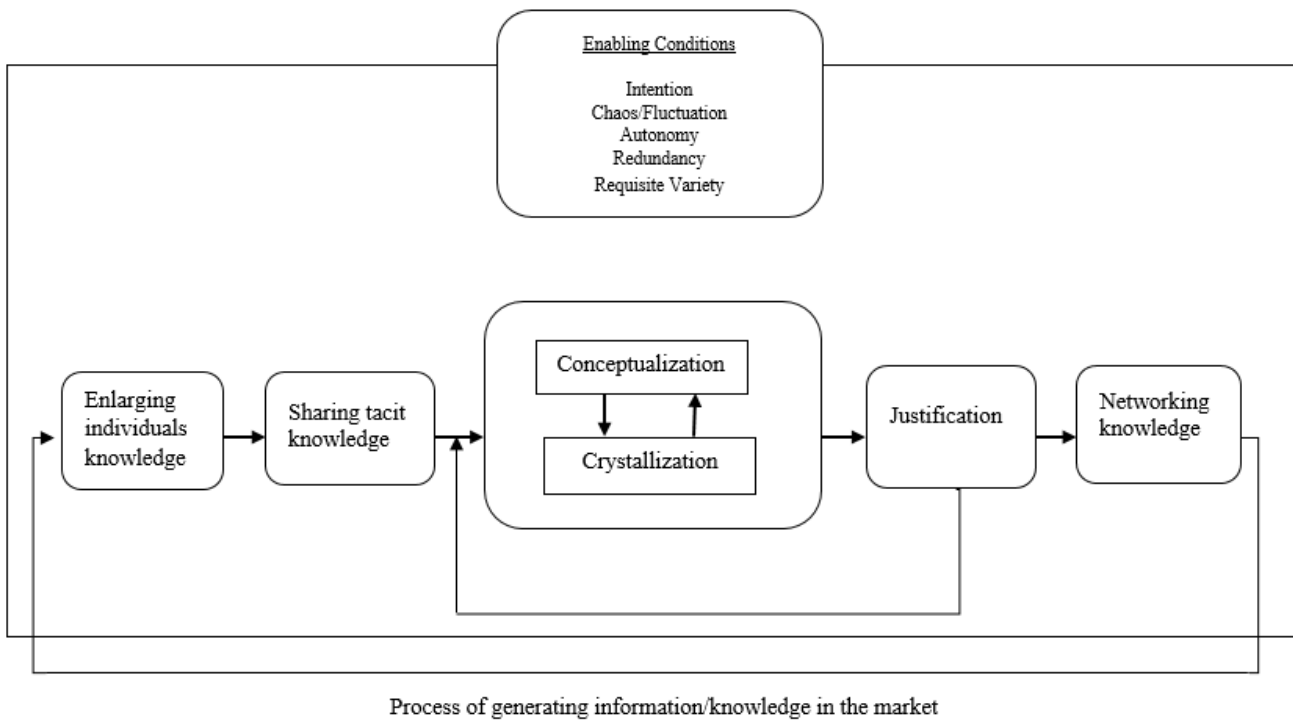


Figure 2: *Organisational Knowledge Creation Process by Nonaka (1994)*

As seen in Figure 2, the process of organisational knowledge creation consists of five major phases:

1. *The enlargement of an individual’s knowledge.* According to the author, the main mover in the organisational knowledge creation process is the individual, who through direct hands-on experience accumulates tacit knowledge (Nonaka, 1994). Thus, knowledge creation process within the organisation can be fostered through the enlargement of an individual’s knowledge. Whereas the quality of the tacit knowledge, that also needs to be considered, is determined by two major factors. The first one is the “variety” of individual’s experience. However, if this experience is limited to routine tasks which mitigate against creativity the

amount of tacit knowledge will decrease over time. Therefore, the author stresses the importance of “high quality” experience (Nonaka, 1994). The second factor is the “knowledge of experience”, which refers to a deep personal bodily experience. In order to foster the quality of an individual’s knowledge, the importance of reflection and logical thinking is highlighted (Nonaka, 1994). Furthermore, this individual knowledge built through the experience and rationality will frame a unique individual perspective, which later will be interpreted by others through the shared experience in the next stage of conceptualization.

2. *Sharing tacit knowledge and conceptualization.* Personal perspectives articulated and amplified through the social interaction create an “organisational mind” (Nonaka, 1994). Nonaka (1994) speaks of constructing a “field” or “self-organizing team”, where individuals can bring in their personal knowledge and through collaboration create a new concept. The self-organizing team inspires organisational knowledge creation through two processes. First, it builds a mutual trust among members, because the key factor for this process is experience sharing. Second, it accelerates the implicit perspective that is shared and conceptualized through continuous dialogue among the members. Thus, shared experience is considered to be a facilitator of “common perspectives” and the cross-functional team regarded as the basis for structuring the organisational knowledge creation process.

3. *Crystallization*, as per Nonaka (1994), can be seen as the process through which different departments within the organisation examine the reality and applicability of the concept developed by the self-organizing team. It is a social process, occurring at a collective level and that, according to Haken (1978) as cited by Nonaka (1994), is realized through “dynamic cooperative relations” or “synergies” among varied functions and organisational departments. Therefore, fast product development is assisted by information redundancy. The scholar provides an example of Japanese firms, where different phases of product development processes are “loosely linked, overlapping in part, and the creation and realization of information is carried out flexibly” (p. 26). The author also notes that product development process may also involve outside partners such as suppliers and customers “in order to mobilize and explicit environmental knowledge” (Nonaka, 1994, p.26). Thus, crystallization, is a process encouraging experimentation, which usually leads to a new knowledge creation process.

4. *The justification and quality of knowledge.* Organisational knowledge creation process needs to be converged at some point in order to stimulate the sharing of created knowledge beyond the boundaries of the company for further knowledge creation. Thus,

justification refers to the final convergence and screening in order to determine to what extent the knowledge created within the organisation is really valuable both for the organisation and for the society (Nonaka, 1994). In other words, during the process of justification the company determines the quality of the knowledge created, it also establishes the evaluation criteria for judging truthfulness. Truthfulness of the developed knowledge can be assessed by the established “standards” such as cost, profit margin or the degree to which a product can contribute to the company’s growth (Nonaka, 1994).

5. *Networking Knowledge* is the stage of the organisational knowledge creation, when the concept that has been created, crystallized and justified is integrated into the overall organisational knowledge base, which covers the whole network of firm’s knowledge. The organisational knowledge then is accordingly reorganized through the verification of the newly –created concept with the established organisational vision. (Nonaka, 1994).

Another important aspect of the model is “Enabling Conditions”, which refers to the organisational knowledge management and its main purpose to stimulate the “individual commitment” to the knowledge creation process. Nonaka (1994) enumerates the following enabling conditions:

- *Intention*, according to Nonaka (1994) is not only a state of mind, but also an action-oriented concept that speaks of individuals’ approach and how they make sense of their environment. Intention refers to a purposeful activity, and therefore, it would be “impossible to judge the value of the information or knowledge perceived or created” (Nonaka, 1994:p.17).

- *Autonomy* refers to allowing people to act autonomously, in this way increasing company’s flexibility in acquiring, relating and interpreting information. It is also considered that individual autonomy widens up the possibilities for individuals to create new knowledge (Nonaka, 1994).

- *Environmental fluctuation* is one the key factors that triggers individual commitment. At organisational level, it can generate a “creative chaos”.

- *Creative chaos* is often generated naturally when a company experiences a crisis due to the rapid external changes in technologies or on the market. It can also be created by leaders proposing challenging goals for organisational members. The essence of a creative chaos is that it increases the tension within the company and directs the attention to a problem solving.

- *Redundancy* means “the conscious overlapping of company information, business activities, and management responsibilities” (Nonaka, 1994, p. 28) Redundancy of information plays a key role in knowledge creation as it can speed up the concept creation. Furthermore, the concept of information redundancy refers to the extra information sharing among individuals. In this way, through the overlapping information share individuals add new information, a different perspective from their area of operation. Thus, redundant information inspires problem generation and knowledge creation (Nonaka, 1994). There are a couple of ways to build a redundancy into the organisation. The company can adopt the overlapping approach and create an internal rivalry in product development that encourages different teams to look at the problem from various angles. Another way to build a redundancy into an organisation is through the strategic rotation, for instance, between different areas of technology or between various functions such as marketing and R&D that also supports a company with the understanding of its business from multiple perspectives (Nonaka, 1994).

- *Requisite variety* speaks of constructing efficient information process channels. Therefore, according to Numangami et al. (1989), as cited by Nonaka (1994, p.29), “it is a practical requirement here that everyone is given access to necessary information with the minimum number of steps” . Thus, the organisation should possess the right structure and processes so that individuals within the organisation know who owns the necessary information, they should also be connected to the least number of colleagues “so that they are not loaded with information in the excess of each one’s cognitive capacity” (Nonaka, 1994, p.29).

To sum up, it is important to note that the presented organisational knowledge creation process is circular, and thus has no end. It is not confined to the organisation, but also has many interfaces with the external environment, which at the same time is an incessant source of inspiration to knowledge creation within the organisation. The Nonaka’s framework addresses one aspect of the relationship between the knowledge creation and the environment, which is the reactions of customers, competitors or suppliers to the product, illustrated as the “the process of generating knowledge in the market” in the proposed model. As can be seen in the figure 2, the tacit knowledge of customers and market will be mobilized and reflected to the organisation that accordingly will generate a new process of knowledge creation within the organisation. Thus, although the model illustrates the knowledge creation as a rather linear process, different stages of it can take place simultaneously, or in some cases jump back and forward.

2.4. Knowledge Acquisition and Absorptive Capacity

In the present times with diffusion of industry boundaries and highly competitive organisations, knowledge, its proper application and ‘fast acquisition and utilization of new knowledge represent the only source of sustainable competitive advantage’ (Davenport and Prusak, 1998, Schiuma et al. 2012, p.5). Effective knowledge acquisition and exploitation foster the development of capabilities that helps organisation to deliver successfully targeted value propositions (Schiuma et al. 2012).

When knowledge is transferred its success is determined by its absorption at the receiver side and the recipient’s absorptive capacity (Cohen and Levinthal, 1990). At both individual and organisational levels, knowledge absorption depends upon the recipient's ability to add new knowledge to existing knowledge. Although Laursen and Salter (2006) drew on Cohen and Levinthal's (1990) research and suggested absorptive capacity (AC) as a complementary factor to external knowledge search breadth and depth in shaping innovation performance, they assessed AC as a one-dimensional concept and used R&D intensity as a proxy to measure it. However, the appropriateness and validity of R&D as a proxy of AC has been questioned, given that the empirical evidence is inconsistent and it does not capture AC as a dynamic capability (Lane et al., 2006; Zahra & George, 2002). Authors therefore recommend considering the multidimensional nature of AC when analyzing the concept instead of assuming it to be one-dimensional (Lane et al., 2006: 857; Volberda, Foss, & Lyles, 2010). According to its process-based definition, AC represents a dynamic capability which confers firms with the ability to recognize, assimilate and apply externally held knowledge through three sequential processes, namely, exploratory, transformative and exploitative learning (Lane et al., 2006; Ferreras-Méndez et al, 2014).

One important aspect of knowledge in the context of absorptive capacity is knowledge appropriability. Tacit knowledge cannot be directly transferred: it can be appropriated only through its application to productive activity. Explicit knowledge suffers from two key problems of appropriability: first, as a public or non-rivalrous good, anyone who acquires it can resell without losing it (Arrow, 1984); second, the mere act of marketing knowledge makes it available to potential buyers (Grant, 1996).

The type of knowledge involved affects knowledge acquisition and exploitation (Lane and Lubatkin, 1998). Eriksson et al. (1997) termed external ‘business’ knowledge, i.e., knowledge of products, markets, and technology, rather than ‘organizing’ knowledge, i.e.,

knowledge of structures and systems; external business knowledge includes both explicit and tacit components (Renko et al., 2001).

The development of organisational knowledge resources through organisational learning mechanisms and knowledge management processes, affects organisational capabilities (e.g. Andriessen, 2004; Hamel, 1994; Mills et al., 2002; Sanchez, 2001). Then, organisational capabilities are translated into performance and value consequences when they are leveraged into products and services that, in turn, generate value for company's stakeholders. In sum the effectiveness and productivity of organisational processes, such as 7 business processes, support processes and decision making processes (Porter, 1985), and, consequently, the company's ability to generate value, originates from cause-and-effect chains activated by the proper management of organisational knowledge resources (Carlucci et al., 2004; Schiuma et al. 2012).

The resource and knowledge based views of the firm have prompted strategy researchers to focus on value creation, as opposed to value appropriation (Conner, 1991; Kogut and Zander, 1996; Nahapiet and Ghoshal, 1998; Renko et al., 2001). Schiuma et al. (2012), stresses on the focused management attention on knowledge resources which represent strategic assets which aligns to the company's business and performance objectives and links to strategy planning, execution and achievement. Knowledge resources are linked to an organisation's capabilities, processes, performances objectives and strategic value propositions. It directly affects company's value creation dynamics.

Knowledge acquisition is important to apply, store, share and preserve vital knowledge resources, thereby enhancing the impact of knowledge on strategic goals achievement (Sveiby, 1997). The contextual alignment of the applications of knowledge resources with the organisation's strategy is important for specific value creation (Marr et al., 2003). 'The full potential of knowledge resources is realised when they are efficiently and effectively managed through proper knowledge processes' (Schiuma et al. 2012).

Huber (1991) assumes that 'an organisation learns if any of its units acquires knowledge that it recognizes as potentially useful to the organisation.'

Knowledge acquisition from interorganisational relationships is a source of competitive advantage. Through interorganisational interactions external knowledge can be accessed and combined with existing knowledge. Also a context can be created to apply and exploit newly

created knowledge (Renko et al., 2001). A firm's capacity to recognize, assimilate, and exploit external knowledge is dependent on similarities with exchange partners' knowledge bases, organisation systems, and dominant logics (Lane and Lubatkin, 1998). 'Relative absorptive capacity is greatest when exchange partners have similar expectations and systems, because knowledge is embedded in the systems themselves. Shared expectations and goals also promote the creation of compatible systems and cultures in the dyad.' (Renko et al., 2001).

Customers can also be valuable source of information for new product development (von Hippel, 1988). Know-how regarding product improvement possibilities, new functionalities, joint prototyping can be valuable with key customers. A broad set of customer enhances knowledge acquisition with new knowledge (Renko et al., 2001). Diversity of knowledge content is required for transfer of new knowledge (Cohen and Levinthal, 1990). The speed, breadth and depth of an entrepreneurial firm's learning is influenced by the diversity, it increases new knowledge integration skills. With greater depth of knowledge, significant product differentiation can be realized (Zahra et al., 2000). 'A competitive advantage results when a firm implements strategy that creates value which other companies cannot efficiently replicate' (Hitt, Ireland, and Hoskisson, 1999, p.5).

The different knowledge sources along with the processes for knowledge acquisition and exploitation are important areas to research further. 'The dynamics which link knowledge processes to value creation, the valuation of their impact on organisational performance and the role of some organisational and technological resources as enablers or restraints of successful knowledge management emerge as relevant topics to be investigated' (Schiuma et al. 2012). Further areas of interest deal with the complex dynamics through which knowledge resources and knowledge processes take part to company's value creation (Adams, 2008; Carmel and Tishler, 2004; Carlucci and Schiuma, 2007; Daum, 2002; Marr et al., 2004; Schiuma et al., 2007, 2008).

In chapter 2.3 and chapter 2.4 we have presented the concepts and ongoing theoretical work in the areas of knowledge, its creation and acquisition. The criticality of knowledge in terms of value creation, product innovation and competitive advantage has been established (Sveiby, 1997; Davenport and Prusak, 1998; Schiuma et al. 2012). As has been discussed so far and with the backing of organisational knowledge creation theory an organisation can get this knowledge required for its business model development either by creating it or by acquisition. On the creational aspect of knowledge the seminal work of Nonaka (1994) has been presented

with its process and enabling conditions. It is our assumption that *this framework for organisational knowledge creation can be adapted and/or expanded for the case of knowledge acquisition for a new business model creation*. We will try to build on this framework and propose a modified framework which can then be utilized for the above mentioned case.

3. Method

This chapter describes the rationale of research methodology applied in this thesis. Firstly, the research design, process and research strategy is introduced, followed by the data collection. In this section there are presented the data sources and methods used in order to collect the empirical material, as well as the reasons that motivated those particular choices. Finally, the method for data analysis underlying the findings presented in the next chapter 4 and the process how the authors arrived at conclusions of this thesis is reviewed and discussed.

3.1. Overall Research Design and Process

The empirical material for writing this thesis was gathered during the spring semester from January 2015 to May 2015. The research was conducted at the Company as part of the internship project. The purpose of the internship was to carry out a business development project and experience the company's life from an insider's perspective. However, even though we spent three months in the organisation, we were still considered as outsiders among its employees, since it is a big organisation and most its employees have worked in the company for many years. Nevertheless, the time was enough to understand the reality of the company and the dynamics of its culture, while at the same time maintaining the objectivity of an outsider. Studying the environment from the outsider's perspective thus can offer several advantages. First of all, the researcher takes a neutral position, whereas the respondent is in the expert position. Secondly, the researcher taking an outsider's standpoint may approach the problem from a fresh and a different perspective (Berger, 2015).

Overall Research Design

The research of this thesis is based on a qualitative research design, which aims to provide an in depth elucidation of the object of interest (Bryman & Bell, 2011; Andersen, 1998) through the highly interactive process (Bryman & Bell, 2011). Thus, a qualitative research is used to gain an in-depth understanding of the problem, issue or a theory, it seeks to understand and provide insights why some things are the way they are (O'Farrell, 2003). According to Bryman & Bell (2011), qualitative approach intends to get people talk in order to understand their individual opinions, thoughts and different perspectives around the subject to provide insights about this world that could contribute to the theory. In other words, as Willig (2001) explains, qualitative research is usually concerned with a meaning, aiming to explain how people make sense of the world and how they experience it. Therefore, the main strength of qualitative data is that it focuses on naturally occurring, ordinary events in natural settings, and thus describes real life and not only theoretical possibilities (Miles & Huberman, 1994).

Thus, in order to be able to provide an in-depth understanding (Bryman & Bell, 2011) of how a company performs knowledge acquisition for a new business model creation and what are the enabling factors, a case study has been undertaken. According to Yin (1994), case study research is a very useful method as it allows expanding and generalizing theories by combining the existing theoretical knowledge with new empirical insights. As Yin (2009) defined, case study is 'an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident'. According to Yin (2009), a case study should be used when answering a 'how' or 'why' question, therefore this research design is highly relevant and applicable in our case as this thesis aims to understand how a company performs external knowledge acquisition for a new business model creation. Furthermore, considering the existing gap in the academic research, we aim to contribute to the literature following Eisenhardt's (1989) and Dubois & Gadde's (2002) advice that case study is a good platform for a theory development, whereas qualitative research methods are in particular helpful of 'an intensive, detailed examination of the case' (Bryman & Bell, 2011, p.60).

The Process

The qualitative research process consisted of six steps defined by Bryman & Bell (2011). First of all the general research questions had to be framed. Since the scope of the internship project was too narrow and possibilities for data collection were rather limited, an empirical research for this thesis had to be conducted separately yet simultaneously with the business development project. Therefore we started with exploratory research, which involves the process of evaluating the existing literature on related topics (Sreejesh, Mohapatra & Anusree, 2014) to be able to narrow down the research question and identify the potential for contribution to the existing knowledge (Bryman & Bell, 2011), as well as discussing the problem with the mentors at the internship company and academic supervisors. At the end of this process it was clear what type of information needed to be gathered and how the research process should proceed (Sreejesh, Mohapatra & Anusree, 2014).

The next step – the selection of relevant site(s) and subjects – is discussed later in the paper under sampling, yet it was important to consider the potential informants in terms of their knowledge areas and position in the company. Therefore, the selection of potential respondents was made based on the recommendations of mentors as mediators at the internship organisation.

The next step – the collection of data – was carried out according to the established research design. Thus, qualitative research methods such as semi-structured interviewing were applied.

The last three stages were a very iterative process and is apparent in the next chapters of this paper: Findings, Analysis and Conclusions.

3.2. Data Collection

In accordance to the research design, qualitative research methods are in particular helpful of “an intensive, detailed examination of the case”, thus the main method of data collection was qualitative interviewing (Bryman & Bell, 2011). Furthermore, other data sources such as internal company’s documents, observations and informal meetings were also used to verify the findings and make them more substantial, which can be described as a triangulation method, meaning that the authors draw on different empirical data collected from various sources (Bryman & Bell, 2011; Eisenhardt, 1989).

Qualitative Interviewing

Qualitative interviews refer to the in-depth interviews that can be three kinds: non-directive or unstructured interviews, semi-structured interviews and standardized open-ended interviews (Sreejesh, Mohapatra & Anusree, 2014). In our case we have employed the first two methods, which were primarily conducted on a one to one basis, also known as individual depth interviews (Sreejesh, Mohapatra & Anusree, 2014).

By unstructured interviews we refer to the dialogues with our mentors at the internship organisation as well as natural conversations with other employees in the company that occurred in the coffee area, when we could bring up various topics related to the research question (Sreejesh, Mohapatra & Anusree, 2014).

Another applied method was semi-structured interviewing, that composed most of the empirical data. The interviews were ‘formally bracketed, and set off in time and space as something different from usual social interaction between researcher and informant, in contrast to the unstructured interviews, often seen as just happening’ (Davies, 2008, p. 94). In contrast with unstructured interviews, the semi-structured interviews involves an interview guide with a framed set of questions, which works as a supporting tool during the interview and is prepared in advance. With a help of the reviewed academic literature we could define certain groups and types of questions that framed the interview guide (Bryman & Bell, 2011). Semi-structured interviews thus ensure that the interviewer keeps the interview limited to the topics that are relevant for research, while still leaving enough room for flexibility to adapt to different responses (Sreejesh, Mohapatra & Anusree, 2014).

Interview Guide

In creating the interview guide we explicitly wanted to make use of the existing concepts in the field but also restrict us as researchers from imposing with initial assumptions and expectations onto the interviewees as suggested by Bryman & Bell (2011). The guide was thus created in a manner meant to allow emergence of concepts relevant for the interviewees yet translatable onto the concepts already in use in the field of research necessary to answer the research question.

As for the empirical research, we conducted two sets of interviews. First group of interviews addressed rather broad range of questions on the Company’s business model and company’s entrepreneurial capabilities, which provided the authors with a knowledge acquisition theme that emerged as an important factor in organizational change phase at the Company. Whereas, a second batch of interviews was more explicit and aimed to understand how the Company performs knowledge acquisition for its new business model creation.

Sampling

In order to assure the deep understanding of the case, it was important that interviews are carried out with relevant people (Bryman & Bell, 2011). The selection of informants was based on a non-probability snowball sampling approach (Bryman & Bell, 2011). The authors had a contact with a mentor at the company. The mentor referred to the key persons in the company who could provide researchers with essential data. Thus, the interviewees were systematically chosen in terms of their position in the company, the level of expertise and involvement in the area of a research subject. However, the selected informants were in different job positions in the company that helped the researchers to obtain a variety of insights (Eisenhard & Graebner, 2007). A list of the interviewees is presented in the table below:

Name of informant	Position in the company
Anders Nilsson	Sales Director B2C & SME
Ola Olsson	Strategy & Corporate Development
Lars Adgård	Head of Product and Customer Insight
Karl Lebel	Deputy CEO
Mattias Hågensen	Head of Program Office, Business Innovation
Henrik Mathiesen	Head of Product development

As suggested by Bryman & Bell (2011) we chose to conduct the interviews in the premises of the Company, a familiar and most convenient place to our interviewees. All the interviews were conducted in conference rooms that provided informants with enough privacy and confidentiality. All the interviews, except one, were recorded and then transcribed.

3.3. Method for Data Analysis

For the data analysis we reviewed and searched the transcripts for content referring to our research question. This could be seen as the first level of coding although no explicit codes, nor categories, were developed until later. We employed a theoretical background to aid the coding, as suggested by Bryman and Bell (2011), in terms of bearing the different concepts from the previous literature loosely in mind while searching for quotes. However, it is also suggested by Bryman and Bell (2011) that one starts developing hypothesis in this step, we therefore decided to repeat the coding, with a less focused approach, to allow emergence of other aspects of the material. The findings of data collected then were analyzed within-case and followed by the cross-case analysis that allowed the emergence of major similarities and differences (Bryman & Bell, 2011).

Within-case Analysis

The purpose of this step was to reduce the amount of data and to become even better acquainted to the interviews (Eisenhardt, 1989). Eisenhardt (1989) argues that there is no given form for performing this analysis but it should allow unique patterns of each case, or in this instance, each interview to surface. Therefore, we performed the second level coding - collapsing selected quotes into higher abstraction categories. The categories became the new unit of analysis and are later presented in the thesis under the Findings.

Cross-case Analysis

All the conducted semi-structured interviews contained the same questions and were asked in a similar way to follow the same overall logic of the interview (Bryman & Bell, 2011) that allowed cross-case comparability (Eisenhardt, 1989). In this step, the categories and patterns within each case were analyzed across case relating them to each other. To reduce information-processing bias the material can be analysed from different perspectives - either by selecting certain dimensions of interest based on the research problem or focusing on similarities and differences between the cases (Eisenhardt, 1989, p. 540). In order to allow both for generation and emergence of new additions to these theoretical constructs we opted for the detailed similarities between the cases without forcing them into a theoretical frame that may not fit. There were of course differences as well but given our research question, we focused on extracting concepts common for the group as one entity.

4. Presentation of the Empirical Findings

In this chapter the empirical findings of the case study are presented.

The Company and the Transformation

The Company is a major investor-owned energy supplier. It is a billion dollar multi-national company spread across different continents with nearly 100,000 employees. Its diversified business consists of renewable, conventional and decentralized power generation, natural gas, energy trading, retail and distribution. The Corporate Group is segmented into global units (by function) and regional units (by country). Our project is based in Swedish headquarters of the company in southern Sweden. The company aims to position itself to take advantage of the dynamic changes that are transforming energy markets worldwide. Under the new strategy it will focus on the new energy world - new energy technologies are spreading fast, customers increasingly seek innovative solutions, smart grids are creating a data highway for the energy system, and digitalization is moving rapidly forward.

To get an idea about a company and its fabric, understanding its business model is essential. As already mentioned earlier in the paper, business model is a conceptual framework which helps to link the firm's strategy, or theory of how to compete, to its activities, or execution of the strategy. The business model framework can help to think strategically about the details of the way the firm does business. (Richardson, 2008, p.135). The company is transforming its business model. It is operating at two opposite ends of the spectrum in terms of the products and value they offer to the customers. Large scale commodity business, for example, nuclear power plants vs. push for sustainable green energy. Also push for power as a commodity and at the same time completely reconfiguring the business model to orient towards customer services and energy solutions. Going forward, it is poised to split itself into two different companies with two different strategies and markets. A traditional utility company and the new customer focused 'energy solutions' company. Our focus in this paper has been the new company which is more focused towards customer solutions and the services sector. The findings which will follow and their corresponding analysis aligns to the structure of 'Organisational Knowledge creation' framework by Nonaka (1994) mentioned in chapter-2. We will categorise them according to the emergent themes in our findings.

Existing Business Model

The offerings of the company differ from the area of business and the customer needs. It is the traditional utility company having a) generation covering nuclear and hydropower, b) distribution covering gas, power and heat and c) retail (Adgård L., 2015). Of the commodities business Lars Adgård, Head of product and customer insight, elaborates:

“The business model there is very much linked to producing energy at a low price, as low a price as possible, and to match the production with the market price.” (Adgård, 2015)

Of the retail business he adds,

“Coming to retail, where we have the traditional commodity, very very very tight margins, it’s a huge volume but a small revenue” (Adgård, 2015)

Mattias Hågensen, Head of Program Office, Business Innovation notes one of the reasons *“the regulation is quite strict, it is driving towards lower prices.”* The company is characterised by the traditional energy industry where an investment should return a nice and steady cash flow for many years and this stability provides the opportunity for accurate forecasts for price development and perfect calculations (Hågensen M., 2015).

Customers of the Old

According to the Karl Lebel, Deputy CEO, there are two major customer groups for the company: the residential customers, B2C, and the B2B customers, industries. The company also addresses cities and municipalities as a big chunk of its customers segment.

Lars Adgård states that these customer groups are divided based on how a customer is as a person, what are his/her key beliefs. Many different questions need to be addressed:

“What kind of business are you working in: real estate or an industry? Do you use a lot of energy or do you use just a little bit of energy? Are your total costs very much energy dependent? Are they just a little bit energy dependent?” (Adgård, 2015).

Within the broad groups the company has four different needs segments, one group that is very cost focused, one that is focusing on environment, one group that want it only simple, and then one group that needs more stability (Nilsson A., 2015). The customer segmentation

however resulted in not much differentiation in product offering. Mattias Hågensen stresses on the dominant logic in the company and its result on the customer orientation.

“This is what we’ve been doing traditionally, in history, I mean, not really looking into what’s the value for the customer of the power or the heat or gas ... we deliver it and we get revenue for what was delivered, the larger the volume the better, so if a customer wastes energy, that’s good for our business.” (Hågensen, 2015).

The Future

The large customers of the company, the municipality, the cities, the regions are very much in the driving seat and they ask for more integrated solution, not individual gas or heat or power solutions, but for an integrated, sustained solution and that tends to be the case of the market which is oriented towards more integrated, packaged solutions rather than individual solutions (Karl Lebel, 2015).

“2 years back we collected long term resources and put them into business innovation. We created business innovation to get more emphasis on the integrated but also to get more focus on product and business development and get more ... focused organisation doing that, speeding up the product development” (Lebel, 2015).

The creation of the new business model signifies a paradigm shift in the operations of the company and the leadership looks at it enthusiastically as evident from Karl Lebel, *“we are really excited about what we can do and this is much more than just energy, we are entering into a new domain.”* He looks upon themselves as a builder of a society, or at least they want to see themselves as such. The focus shifts towards energy infrastructure, energy solutions, smart buildings, sustainable cities and retrofits (Hågensen, 2015).

Boundary Establishment, Capability Recognition & Recruitment

The future is ushered in by understanding the capabilities of the present and building on it. The company stresses on knowing its own strength and weaknesses with respect to the new business model and new business areas (Lebel K., 2015). Almost all areas needed learning and competence building and a focused recruitment strategy was followed to close those knowledge

and competence gaps (Hågensen M., 2015). Karl Lebel mentions the type of competence required varies depending on the value proposition for the customer.

“If you’re going to sort of build a digitized solution, it’s quite another competence, quite another image and attitude you need, both in order to enhance development within your own organisation, but also to attract people from the outside. So we have recruited a lot of people from the outside, from telecom industry. And we still want to blend that with our own organisation, with our own sort of competence on the energy side and connect that. So that’s a challenge.” (Lebel, 2015).

Lars agrees and informs *“we recruit lot of people outside from industries where we thought they have another experience when it comes to product development and pace of development.”* (Adgård, 2015). He points out lots of potentials to improve the overall efficiency of the system. In those areas he sees potential for new business models to do well.

Henrik Mathiesen notes the company with its new business model will be definitely less assets-driven. There will also be more of different kinds of assets, more IT development, IT platforms and system development and in combination with more of the consulting resources (Mathiesen H., 2015). The company had it before but then had divested those parts. Ola Olsson believes *“I think we will have to rebuild some of those capabilities. in the new world where we have entered, we cannot act the same way, we have to be much more test and trial, quick and easy, and get an idea is this working or not.”* (Olsson, 2015). For energy solutions to have more of an integrated perspective and developing the capabilities that the company don’t have presently but will have to develop in order to make sure that the customer can have the most attractive value proposition (Lebel K., 2015).

Mattias Hågensen talks of the challenge a new area poses and the variety of competencies required navigating through it. Mistakes will be part of that navigation but learning needs to be derived from it. *“Looking at the projects, we had lots of consultants and external competence in order to be able to develop the solution we haven’t been able to do that by ourselves. And that also implies that I mean you have to learn, you make some mistakes that you wouldn’t have made, if you had the knowledge from the start.”* (Hågensen, 2015). The leaders talk of the clarity in vision of wanting to position the company as an energy efficiency company towards customers and that was the main driver (Lebel K., 2015). Structured gap analysis was done to find out the potential change areas in order to achieve the said vision (Olsson O., 2015). *“It is*

important to know what you lack and what you need to acquire to be where you want to be” (Olsson, 2015).

Customers of the New

Lars Adgård explains the fundamental changes in the company and its strategy from a customer perspective:

“But we are understanding that the customers don’t think the commodities business - it’s good enough. They need something more. And we would like to give them more. Then we are approaching very much in energy solutions. And that is a new strategy for the company.” (Adgård, 2015)

There has been a gradual development into a strong outlook towards the customer values where value per *kilowatt hour* is becoming more important instead of *only kilowatt hour* (Adgård, 2015). This makes it interesting to look at the customer from an energy solution point of view, where energy efficiency is really important, making sure if there is a financial potential for the customer to reduce the cost of overall energy use by having a more efficient solution than the company wants to provide that benefit to the customer (Lebel, 2015). Matias Hågensen, articulates the company vision for the business model with respect to customers:

“Customer friendly. Win-win. A model in which you have two winners: first, the customer, and, of course, us. A business model that gives a possibility to develop other products, build up other possibilities to interact with the customers.” (Hågensen, 2015)

Anders Nilsson, Sales director, hints at further granularization of the customer segments than the ones mentioned earlier. The aim is to identify specific customers, learn about their specific needs and provide customized solutions (Nilsson, A., 2015). He outlines three business or sales strategies, *“we want to retain our customers, then we want to acquire new customers, and then we want to add value to the customers”* (Nilsson, 2015). The company has setup a customer insights group which has a mandate to look into customer trends, needs and sensibilities. One of the main sources of knowledge and change comes from the customer which drives the way the company is working and aligning (Lebel K., 2015).

“Ask the customer, their need...project description, we have a decision on the project. We have a project leader... and then we run the project, and then we launch it to the product development department in the sales company and then out on the market.” (Lebel, 2015)

In line with Karl, Lars Adgård also addresses the importance of customer insights, confirming that every new product/service project must reflect and fulfill customer needs and get justification, *“Test them with customer insights. Some really light business cases to start with”* (Adgård, 2015). One of the customer value propositions identified by the insights group has been importance of innovative products and the differentiation it brings to the company. The company considers a few significant projects out of the business innovation department as the forefront products in a Swedish market and thus big expectations are put into these two initiatives as major innovation projects in the company that will steer the company in a new direction. Furthermore, in terms of why customers choose the company instead of other energy provider, main reasons mentioned among the interviewees were innovative products and innovative services. As Karl Lebel (2015) opines, *“We like to believe that we have the greatest service, faster, we are more efficient, we are better service oriented”*.

Intra and Inter Organisation Partners and Network

One of the key competitive advantages of the company as pointed out by most interviewees was its size, its spread and its network and wide partnership possibilities. Compared to smaller companies in the same industry, it is easier for the company to obtain funding regarding product development, which inevitably has an effect on value creation and delivery. Moreover, since the company is operating internationally, there are possibilities to put all resources together, not only in Sweden, but also via collaboration with other regions in Europe and Americas. Anders Nilsson talks of having the international benchmark, and the fact that they can look at what the UK unit is doing; for example, if they're really good at business intelligence and knowing the customers, or customer insight, then the Swedish unit adopts and steals that knowledge, the ideas, and brings them to Sweden. Henrik Mathiesen talks to information in silos and accepts the knowledge flow within the organisation was poor. Now he agrees with Anders Nilsson that focus has shifted towards having better information network within the organization.

“If you put those guys together, there can be really interesting meetings regarding ideas, product development in the international environment that we have a possibility to really look

into different kind of markets. That is a lot of know-how that you can have easy to use” (Adgård, 2015)

Karl Lebel also speaks of blurred boundaries between industries and a growing interest in collaboration with others and partnership necessity:

“The different industries are sort of gliding together. The telecom industry is coming to the energy industry, and the energy industry going to the telecom industry, industry boundaries will sort of be diffuse, collaborating with others. Every project that we set up, we have a partner.” (Lebel, 2015)

Ola Olsson, Head of strategy, believes in creating new value proposition in collaboration with partners and collaboration and joint value creation is high on the agenda:

“We think that collaborating with these competences; we might come up with new solutions. We are looking at partners that could bring value to our energy platform” (Olsson, 2015).

The company is also looking at partnerships to acquire new competence such as universities, research organisations (Olsson O., 2015). He notes that *“idea can come from several different places, it can be from useful dialogue, it can be that there is a notion within the company that we have some unfulfilled customer needs, it can be from external partners”* (Olsson, 2015). The focus on partnerships is visible at the senior management level as well. When Karl Lebel emphasizes developing of new services, new revenue streams as part of business model change he elaborates the collaboration part with partners as well. The idea is to learn with the partners about uncertain areas thereby reducing risk and allowing the company to start small and then scale up as and when the value is established. *“And in every part, in every project that we set up, we have a partner. Bringing in new competence”* (Lebel, 2015).

Organisational Structure and Culture

The emphasis on the existing organisational structure and the continued need for it to change emerge from all interviewees. Anders Nilsson notes that decision process is not lean and is slow, traditional and bureaucratic. He points out to the seven decision points present in the decision phase of a project getting green light and the difficulties it brings with it. He adds, *“we are not a fast moving company when it comes to adaption... to the development of, we have to be much faster...we have the resources to build the capabilities to do this”* (Nilsson, 2015).

Karl Lebel agrees, *“Processes are very good but they should not be first thing to think of when doing creative things, you need to sort of create a bit of flexibility.”* Lars Adgård notes of struggles within the company, *“we do a pilot or a pre-study and when we have the next decision part, when it comes to IT money, the budget for internal resources, we are struggling quite hard internally”* (Adgård, 2015). But Karl Lebel sees things changing with the new business model creation, *“we have an aim that we will want to lot more new products into the market than we have ever done before, so we have taken up an organisation structural change.”* (Lebel, 2015).

New products being developed will have a much shorter life cycle than what the company is used to. The focus is therefore on creating an environment, which supports their strategy to come up with new innovations all the time, and to bring in a new attitude within the company as well, a new mindset for the organisation (Lebel K., 2015). The company is experiencing a culture change with regards to innovation:

“I think we have quite a lot of ideas, but we don’t really right know how to go from an idea to a fast-moving project. It’s all about time to market, we are too slow from the idea to the time to the customer.” (Nilsson, 2015)

The culture shifts also towards more action than just discussions and there is a conscious top driven impetus to that as mentioned by Karl. *“I think the best thing is to do it by talking about it, but also doing a lot of actions. Because it’s not enough going talking that we’re going to change the company, we need to do a lot of actions as well”* (Lebel, 2015).

Experimenting and Continuous Learning

Experimenting, prototyping a business case and following a lean startup model for new projects are being followed in the company. Karl Lebel talks of new projects with state of the art technology solutions being put to use for real life customer and market study. Efforts and money are being spent on developing sustainable city solutions. Emphasis is also on the continuous learning derived from these endeavours (Adgård, 2015). Moving away from the perfectionist solution to more trial and error approach seems to hold more value.

“I think it is more trial and error approach... we are now talking about the new energy solutions we need come in the mode of not sort of knowing too much because you could never know... then you have to enter into more trial and error approach and that means also sort of changing our way to take decisions, approach the market, all these...as engineers we are 100%

accurate... and I think 80% will be our future and then you have to try and ask the customers – does this work?” (Lebel, 2015).

The learning is continuous (Hågensen M., 2015) and by setting up a customer insight organisation the company is trying to be more systematic in a way to learn customer behaviour. The focus is also on doing a lot more data analytics:

“We have enormous amount of data which we are not using so much in commercial aspects... So we are setting up that as well... data analytics, customer insights... also being close to the market, in the market. Always testing the product in the market, interacting with customers... but beware that this is a learning phase and continuous learning... and the learning has been sort of taking into your organisation and being setting to new products and services” (Adgård, 2015).

Henrik elaborates the process clearly - the concept is first developed, they try to set up a project for what they would like to do, the target they would like to reach, later being split into different streams of technical development, markets, analysis and some kind of market trial. Before testing it on the market there will be some gate decision.

“We have analysed the market opportunities, and we have also tested the concept on the market, then the next step, if everything is ok, the next step is to make sure that we can take it to the market, develop sales material, train salesmen and so on, which is then done within the retail organisation.” (Mathiesen, 2015).

Strategy Analysis, Evaluation & Leadership

Total energy system is challenging (Hågensen M., 2015). There is the need of the current traditional generation that cannot be ignored which needs to get into the policies and policy development (Adgård L., 2015). Lars Adgård proposes and supports a complete separation of the old and new business model to have their own specific operational mandates:

“It is still to some extent conflicting with other goals if you are working to the new energy solutions. And then balancing those two parts is very difficult from the above perspective. So, I think it will be easier to drive strict agenda in two different parts, instead of trying to balance them together. And it’s also for the strategy of the company as such... the conflicts between the two areas are way less.” (Adgård, 2015).

Coming to specific ongoing projects, they are continuously evaluated in terms of what is good project or bad, where the positioning is happening (Lebel K., 2015). Strategy analysis is done to push forward and monitoring the areas being pushed forward (Olsson O., 2015). *“For this year we have three main sort of deep dive that we are doing...energy efficiency, any small scale production, third one is the mobility area and there we are trying to stitch ourselves and looking into what opportunities are there and how do we develop and how do we go forward.”* (Olsson, 2015).

The business model change is happening comparatively smoothly because of the clear focus from the top management team (Mathiesen H., 2015). Henrik notes the criticality of someone of importance in the management board sharing the vision of an innovative product or project, *“fierce sponsor to do something like this”* (Mathiesen, 2015). Leadership has shown risk propensity during the business model change and is reflected in the words of Anders Nilsson. *“I think we have a challenge when it comes to leadership. How are we going as leaders, embrace opportunities ... take risks”* (Nilsson, 2015).

The communication from leaders of the group management in main headquarters have been clear and supportive, they have embraced innovation and fostered the bringing in of new ideas:

“I think we have a new vision, a clear vision, we have a common understanding within all the separate businesses from our employees, but we need the tools to do it in a much more lean or faster way.” (Adgård, 2015)

5. Analysis and Discussion

In this chapter the analysis of the empirical findings introduced in Chapter 4 are presented. The section aims to answer to the established research questions: (1) How does an organization perform knowledge acquisition for a new business model creation, as well as (2) What are the factors influencing an organization's knowledge acquisition for a new business model creation? The Analysis and Discussion is accordingly divided into two sections. First chapter aims to provide a sound and comprehensive overview how the Company performs knowledge acquisition for a new business model creation and provides the analysis of the empirical findings contrasted with the existing literature presented in Chapter 2. Whereas, the second section intends to highlight the different mechanisms that constitute the process of knowledge acquisition and discusses the factors/conditions that enables this process. The discussion intends to contribute to Nonaka's (1994) organisational knowledge theory and his model presented in Chapter 2 (see Figure 2) by applying it in the context of a business model creation. Thus, the discussion results into the framework for the Knowledge Acquisition for Business Model Creation.

5.1. Knowledge Acquisition for a New Business Model Creation

External knowledge acquisition from both market and technological aspects is the critical dimension which starts an organisation into redefining its position in the industry. Teece (2007) notes that sensing ideas and insights that may become profitable opportunities can originate both from individuals within an organisation such as middle managers or employees as well as from a company's dedicated collectivities such as customer insights unit. These opportunities can be exploited as knowledge and competence building. The criticality of Knowledge to an organisation's success is determined in chapter 2. Spender (1996) rates knowledge as arguably the most important resource of an organisation. Therefore the idea of knowledge in an organisational context as perceived by the organisation's leaders is quite important. One of the leadership team, Head of Product development and Sales, Henrik Mathiesen regards organisational knowledge as new expertise in all areas of operations, product development, customer support, delivery organisation, supply chain management, and new competence. Existing employees of the organisation may have some of that knowledge but definitely the right processes are required to develop that knowledge into expertise to tackle the transition

into the new digital world (Mathiesen H., 2015). Knowledge conversion from tacit to explicit (Nonaka & Krogh, 2009) has been difficult in the company (Mathiesen H., 2015). The traditional nature of the company is reflected where experience, time and practice have contributed to the tacit knowledge:

“We should instead trust each other...every team member has his/her role which they should do properly. We try to build experts and set up cross functional teams of experts.” (Mathiesen, 2015)

Nonaka and Krogh (2009) suggests that in order to expand knowledge beyond a single expert it is essential to convert tacit to explicit knowledge. Lars Adgård, when talking about the collaboration between different geographical units of the company, concurs:

“There’ve been those walls between the regions, but now we are really working just to break those walls down taking ideas from each other, taking products from each other and using products from different regions.” (Adgård, 2015)

All leaders identify the knowledge gap that is existing within the organisation for it to successfully transition into the new business model (Purcell & McGrath, 2013).

“All areas had knowledge gap. If we are not good with partners, if we are not fast enough to go to the market then market can be already saturated. We had SCM problems, we do not have system that helps us with charging, invoicing...we have to learn how to setup those things” (Mathiesen, 2015)

The company’s way to take decisions, approaching the market and always being in a continuous learning phase to be receptive to new ideas from all sources determines its effectivity (Abdelgawad et al., 2013; Lebel K., 2015). Common technologies can be used and combined innovatively to provide differentiated products (Adgård L., 2015). Depending on the nature of opportunity either the management board or the business innovation department within the company takes the decision on an opportunity (Lebel K., 2015). They evaluate competing strategic opportunities and as Burgelman (1983) notes senior executives takes the decision based on the different scenarios presented to them. The emphasis is on moving towards a trial and error culture where it is acceptable to not know all the time, rather need of the hour is to test products and prototypes in market conditions to actually find their worth (Sosna et al., 2010); Lebel K., 2015). The company has traditionally been very structured with multiple processes defined even for early stages of product development (Adgård L., 2015). Karl Lebel

thinks flexibility is especially important when it comes to creativity and as such the company should move towards adaptive nature than structured.

Failure and its acceptance is a powerful agent in making a company more entrepreneurial (Kuratko et al., 2011). Lars Adgård speaks extensively of it and stresses that the road to success is via failure, *“it is ok not to succeed with every ideas, that is really important, failure is also success”* (Adgård, 2015). The company being a traditional utility company it’s imperative to follow a zero error and failure policy (Lebel K., 2015). Sosna et al. (2010) talks of the cognitive map in the perception of owner-managers and that trial and error experimentation start from there. Positive adaptation in spite of failure and in presence of adversity determines resilience (Luthar et al., 2000) and is an indicator of future success (Sosna et al., 2010).

There is strength in the company in terms of customer perception and NPS (Net Promoter Score) and it is considered as a competent provider by the typical customer with regard to the measurement and technical solutions provided (Hågensen M., 2015). *“This image can become an enabler for developing services in adjacent and totally new areas.”* (Hågensen, 2015). The organisation is however weak in terms of the structure which is setup with overhead, processes and structures, and lack of competence in the new energy solutions sector (Hågensen M., 2015).

This brings us to the topic of knowledge acquisition specifically external in nature to the organisation. Mattias Hågensen notes the different sources of external knowledge acquisition as partnerships, recruitments or organic growth, company acquisitions and internal learning. It is interesting to see the importance of internal learning along with the external knowledge acquisition which is an indicator to the importance of absorptive capacity, but we discuss that a little later. The partner selection criteria should focus on *“strategic, business model, customers, competence, geography”* (Hågensen, 2015) of the potential partner organisation. Henrik Mathiesen thinks the partner selection criteria needs further development. And as Mattias points out to a partner which was selected by *“Probably combination of existing network relations and traditional sourcing process”*, it shows traditional approach existing still. A firm’s capacity to recognize, assimilate, and exploit external knowledge is dependant on similarities with exchange partners’ knowledge bases, organization systems, and dominant logics (Lane and Lubatkin, 1998). As noted in chapter 2, knowledge acquisition from interorganizational relationships is a source of competitive advantage and through interorganizational interactions external knowledge can be accessed and combined with existing knowledge (Renko et al., 2001). Henrik Mathiesen believes in assessing one’s own

capabilities first and determining what knowledge, expertise the organisation possess and then make an effective partner selection. Cavalcante et al. 2011 notes the importance to establish boundaries for the company and knowing the existing capabilities. The emergent theme of boundary establishment and capability identification in chapter 4 combines some of the views.

“First identify the capability map. Then formulate some kind of partner strategy...may be the partner comes from business development area or product development team... where does procurement come into place...bringing in both processes and knowledge.” (Mathiesen, 2015)

When knowledge is transferred its success is determined by its absorption at the receiver side and the recipient’s absorptive capacity (Cohen and Levinthal, 1990). Mattias mentioned it briefly when he mentioned internal learning as one of the aspects of knowledge acquisition earlier. Henrik mentions knowledge acquisition from partners which follows closely with building up of in-house expertise.

“We have needs in all areas, so we bring in experts, consultants or partners. This eliminates the risk and also learn that area. Then throughout the value chain e.g. warehousing, logistics which we don’t know yet...so start with external partner. We have to build up the core competence in-house then add consultants...have to have the main competence.” (Mathiesen, 2015)

It is important to identify the type of knowledge the firm wants to create or appropriate (Nonaka & Krogh, 2009). Cavalcante et al. (2011) mentions core repeated processes which is related to the individual’s cognition of core competence and knowledge, which defines the organisation and its business model. Therefore to be successful in a particular market operating with a particular business model it is essential to possess the core knowledge that drives it. Collaboration with partners for unknown markets will effectively provide learning to the organisation to develop its own capabilities in due time (Mathiesen H., 2015). Effective assimilation and utilization of external knowledge in the organisation is a function of existing internal knowledge (Cohen and Levinthal, 1990). We find that in spite of not having existing knowledge about the services sector the idea is to develop that knowledge in synchronisation with different forms of external knowledge acquisition.

The theme of learning with partners and customers is recurring in all interviews with the leaders. Core competence development in a business area always finds importance in their thoughts. Abdelgawad et al. (2013) mentions about the exploration and exploitation of

opportunities to synchronize and shape emergent conditions internal and external to the firm. Both Karl and Lars Adgård accept the importance of partnerships and collaboration and the need to develop their business ecosystem to gain access to the knowledge, resources, ideas, and discoveries of other firms (Abdelgawad et al., 2013). An ecosystem is ‘the community of organisations, institutions, and individuals that impact the enterprise and the enterprise’s customers and suppliers’ (Teece, 2009, p.16). Henrik Mathiesen talks of innovation forums with other companies and regular interactions with them and the customers and in different ways. The key for him is the vision and the roadmap for the company.

“The company wants to become the partner of choice. If we are going to provide the capabilities and be an enabler in this vision we have to know what energy solution is? In what direction are we moving...what we are going to build? We have an agile approach... this is the vision...we are going to be the partner of choice, that means we will have to have close relationship with customers over time. We have to build this organically...start small and build this capabilities...we have to do the whole value chain... so that we have something to the customer in an efficient way and try this in a small context.. When we know this value proposition works then we can scale it up and grow.” (Mathiesen, 2015).

The customer insight organisation is setup to learn more about customer behaviour and finding out what it is that the customer wants in order to be close to the market and always testing the product in the market, interacting with customers (Lebel K., 2015). In customer insights, the unit work with a lot of different models, surveys and structure it in a really proper way by asking questions to customers, analysing and providing solutions (Adgård L., 2015).

Entrepreneurial capability can bring about internal changes in how firms operate, thereby allowing them to proceed to alter the domain, nature, and scope of their competitive arenas (Abdelgawad et al., 2013, p.395). The company is adapting to changing market condition, fundamental shifts in the energy industry and trying to reinvent itself by splitting into 2 companies solely to focus on 2 different market segments and aligning itself to the changing dynamics of cross industry synthesis and exploitation (Lebel K., 2015). Abdelgawad et al. (2013) notes, that re-conceptualization of the relationship between the firm and its external environment (e.g., its main stakeholders), and the employment of different and bold strategies, reset the dynamics of competition. The firm needs to embrace entrepreneurial traits like proactiveness and risk-taking culture in order to match up to the dynamics of the external environment (Kuratko et al., 2011; Adgård L., 2015).

“We have to shape the processes a lot, must be much quicker, our time to market must be much shorter than it is today and not being so perfect all the time” (Adgård, 2015)

The entrepreneurial capability, fast way of working and risk propensity stems from the right people and the processes at play (Kuratko et al., 2011). It is imperative then to have an effective hiring strategy to employ the right people for the right job. Prior work experience and cognitive traits like perception, sense-making, judgement and action defines the value new recruits bring to the organisation (Nooteboom et al., 2007). Individuals possessing the appropriate knowledge, which includes process related knowledge and the way of working, serve as a critical source of knowledge in the business model change (Song et al., 2003; Herstad et al., 2013). There is absence of any general hiring strategy in the company and it depends on the needs of the specific part of the organisation (Hågensen M., 2015). Pre-existing knowledge regarding the direction the company wants to head to and the values it wants to possess determines which industry it hires from and thereby exploit the competence (Herstad et al., 2013). For example, to satisfy the need for developing a fast paced product development team the company hired extensively from the mobile telecommunications industry which is more used to agile and fast way of working with short product development cycles and more receptive to market changes. The new recruits also represent different cognitive domains in terms of new technology and geography and therefore can aid in the process of specific knowledge acquisition (Laursen, 2012; Laursen and Salter, 2006; Rosenkopf and Almeida, 2003; Herstad et al., 2013). Hiring from universities and research domains have fostered strengthening of knowledge bases and global insights (Jensen et al., 2007; Herstad et al., 2013). Mattias Hågensen acts as the specific point of contact with the universities for collaboration on research, internship and hiring. He believes in having a broad spectrum of resource pool with different competencies and personality traits but equally adaptive to change:

“Customers are different and so we have to be different. You have to be able to change or cope with change...going from static place to someplace we don't know. Change is going to be constant and employees have to cope with change. All of the people cannot be entrepreneurs and we need to have people doing everyday jobs, in the product development we probably need entrepreneurial type.” (Hågensen, 2015)

Proper resource utilization is a key aspect in creating effective conditions and how businesses shape themselves in terms of resources determines their market performance (Kuratko et al., 2011). The company allocates resources to projects in terms of project owners,

leaders, experts as per the market need and in case of project failure these resources are reassigned to the next potential success story. By ensuring that the right persons work together and they can impact through daily interaction it is effective to foster product innovation, creativity and assimilate external knowledge better (Mathiesen H., 2015). Product innovation is a direct driver of business model change in ways that it affects the knowledge search and integration mechanisms (Danneels, 2002; Ebersberger and Herstad, 2011; Helfat and Raubitschek, 2000). Employees having specific and diversified knowledge serves as change agents to the interplay of product innovation and business model change (Herstad et al., 2013). Organizational knowledge creation theory and the theory of dynamic capabilities (e.g., Teece et al. 1997, Helfat 1997) show how new knowledge is created by interaction between tacit and explicit forms of knowledge. Thus working together leads to knowledge conversion and through this process of externalization knowledge becomes less costly to share and thereby fosters organizational learning (Nonaka and Krogh, 2009; Grant 1996).

5.2. Framework for the Knowledge Acquisition for a New Business Model Creation

The findings of the empirical research for the first research question - *How does an organization perform knowledge acquisition for a new business model creation?* - can be summed up into five major mechanisms used by the studied Company that determine the process of knowledge acquisition for a new business model creation. As will be shown in the discussion, these five phases closely correlate to the process of organizational knowledge creation presented by Nonaka (1994), which has been discussed in Chapter 2.

Education and Continuous Learning

As presented in the findings, in the process of a business model creation, talking and educating employees is of a crucial importance in building an understanding of the company's future vision and how its new business model will look like. Moving from commodity to service and customer-sided business therefore requires a continuous learning as the company has to find new ways of working, creating and capturing value. This goes in line with Nonaka's

findings that the organization willing to foster knowledge creation has to start with the enlargement of an individual's knowledge (Nonaka, 1994).

Sharing Tacit Knowledge and Conceptualization

Nonaka (1994) speaks of cross-functional teams as a way to foster knowledge share and development within the organisation through the sharing of different perspectives. Our interviewees also pointed out the importance of various forums for experience sharing. They also mentioned that individuals with the Company need to be better at teaming up, thus organization should set the cross functional teams, encourage employee turnover in order to be able to develop the knowledge in-house.

Experimentation & Prototyping

By the use of the crystallization concept Nonaka (1994) refers to the process encouraging experimentation, which often is a source of a new knowledge creation. Therefore, for the organization that possesses a need for a new knowledge it is important to provide employees with enough flexibility which fosters information redundancy. Meanwhile, the Company employs a lean startup approach and aims to build an error culture by allowing experimentation and encouraging the risk taking and prototyping. Hence, the Company has been engaged in various experimental projects aiming to scan the market, examine different possibilities for the value creation and develop the necessary market knowledge.

Justification, Strategy Analysis & Evaluation

Nonaka (1994) underlines the process of justification to assess and verify the relevance and usefulness of the created knowledge with the organisational strategy. As per our interviewees, the Company conducts the strategy analysis in order to decide which project can be pushed forward and which are not worthy to be proceed further with. Thus, the process of justification often relies on the outcome of the Experimentation & Prototyping. Finally, it is important that, for instance, an innovative product is developed in line with the company's vision.

Networking Knowledge with Partners and Customers

Partnerships and building closer customer relationships emerged as a key mechanism that fosters knowledge acquisition for a new business model creation. According to Nonaka (1994), this is the stage when the concept that has been created is integrated into the overall organizational knowledge network which is then communicated on the market. In the case of a new business model creation, networking knowledge refers to the knowledge acquisition to create a new value for the customers through external partnerships as well as customer insights. As noted in the findings, most of the projects that constitute a new business model of the Company are carried out in collaboration with partners. Furthermore, building a close relationship with customers is of a great importance, especially for the organization as the Company, which from selling the commodities is moving to the service focused firm.

The total process of knowledge acquisition for the business model creation is summarized in Figure 3. As it is based on the Nonaka's framework for the organizational knowledge creation, it illustrates the process of knowledge acquisition in a sequential way, however business model creation is an iterative process (Teece, 2010), and therefore knowledge acquisition not necessarily is a linear process.

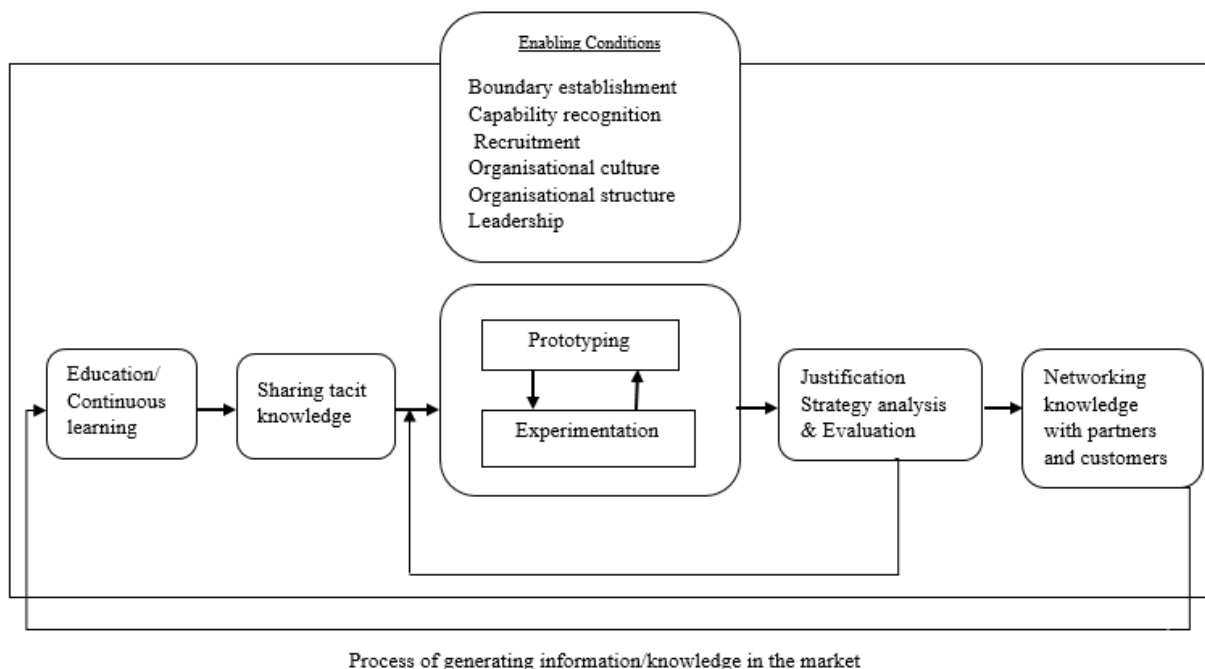


Figure 3: Knowledge acquisition for a new business model creation

Corresponding to the research question – *What are the factors influencing an organization's knowledge acquisition for a new business model creation?* – the framework for the knowledge acquisition for a new business creation also addresses the enabling conditions, as defined by Nonaka (1994). In the organizational knowledge creation process these are the factors that inspire new knowledge generation and creation, while in the framework illustrated in Figure 3 enabling conditions refer to the factors that support knowledge acquisition required for a new business model creation. Accordingly, the empirical findings presented in Chapter 4 can be grouped into five major factors that enable knowledge acquisition and which need to be considered in the process of a new business model creation:

Boundary Establishment

Cavalcante et al. (2011) notes that in order to change a business model an organisation must first establish its boundaries. What follows, are the processes of identifying the knowledge gaps, competence gaps and trying to fill them and then embark on boundary spanning operations if required for the business model change. Our findings suggest that the focus of the company is in identifying the areas it wants to operate in and then identifying the knowledge or tools or path through which they can fulfill the vision.

Capability Recognition

Similar to the boundary establishment this deals with recognizing the knowledge and competence already present in the organisation. This pre-existing capability is a direct measure of absorptive capacity (Cohen and Levinthal, 1990) and determines the degree and effectiveness of knowledge assimilation and also the nature of the knowledge to be acquired. This helps in identifying gaps at a more granular employee and functional level and helps in planning ahead for recruitment or acquisition.

Recruitment

As established earlier in this chapter exploiting the pre-existing knowledge of new employees serves as a critical source of knowledge and acts as a catalyst to the effective business model change (Song et al., 2003; Herstad et al., 2013). The vision of the management and identification of the gaps leading to the vision fosters development of a good recruitment strategy where knowledgeable individuals from varied cognitive domains are sought to be brought into the organisation. These individuals are expected to be autonomous and possess

variety in terms of experience and knowledge. This factor thereby relates to the conditions proposed by Nonaka (1994) of *autonomy* and *requisite variety*.

Organisational Culture

Nonaka (1994) mentions *Intention* as one of the enabling conditions which promotes action oriented approach and purposeful activity. Our findings suggest that there is a conscious effort driven top down from the management to change the path dependent culture of the company. Moving towards a more trial and error based culture where failure is an option promotes entrepreneurial traits and fosters free thinking and creativity. Leaders mention of tangible action towards this change and focus being on customers, employees and business developers are expected to orient their actions to customer benefits.

Organisational Structure

As with culture a strong intention is there to shift from the traditional bureaucratic setup of decision making and responsibility delegation. To create a new business model oriented towards the customers and to acquire knowledge in that process a structure with an inherent fast decision making capability coupled with a risk propensity is needed. Experimenting and prototyping can generate good feasible ideas but then are dependent on the structure to take those ideas to market and on time.

Leadership

Our findings suggest one of the main reason for the ongoing transformation and the resultant new business model creation is promoted and sponsored by the top management. A visionary leadership with clear communication acts as a major enabler towards organisational constructs being more proactive in seeking knowledge and its creation. Leadership directly affects all other enabling factors and as evident from the findings removes barriers and/or the perception of it.

From these factors we find that recruitment and organisational culture are related to the three enabling conditions intention, autonomy and requisite variety from Nonaka's framework. We did not find direct evidence of redundancy or creative chaos being present or promoted in the company for the new business model creation. These five factors are then added to the proposed framework in figure 3 and thereby expands and adapts Nonaka's framework but for the case of knowledge acquisition for new business model creation.

6. Conclusions and Implications

In this chapter the conclusions and implications of the thesis are presented. The section is concluded with research limitations.

6.1. Conclusions

This thesis work was aimed at tying together two very important areas in organisational dynamics, revitalization and development of customer value. Exploitation of knowledge sources, proper knowledge integration and its impact on the creation of a new business model for an incumbent organisation has been looked into at depth. We have tried to expand on the seminal work of Nonaka (1994) in contributing to the adaptation and/or expansion of the organisational knowledge creation framework proposed by him. And we have been able to justify our assumption from the findings and add to the framework by identifying and elaborating on the phenomenon of emergence of the themes consistent with the enabling conditions.

The data collection procedure for this study has been a series of semi-structured and unstructured interviews conducted at the internship company. The Company itself being in a state of transition from the old traditional business model to the new customer oriented and more trial and error approach based business model has provided to be the ideal candidate to conduct this study. The interviewees and their relatively spread out positions within the company having varied responsibilities have provided the empirical data which being qualitative in nature are more elaborative and exploratory. This has meant discovery of enabling conditions for knowledge acquisition in the new business model creation and identification of the components of the process by which the organisation proceeded with the change and realized it.

The data analysis being done with Nonaka's framework as reference helped to put emergent themes and actions in perspective. Clear patterns are identified in the perceptions and the experience of the interviewees with relation to the business model creation and the role knowledge in its different manifestation plays. The criticality of capability recognition, knowledge gap identification, strategic recruiting practices, conversion of tacit to explicit

knowledge by its further diffusion, experimentation, partnerships and value networks are some the key components identified in this dynamic interplay between knowledge acquisition and business model creation.

Implications for further research and also practical implications are mentioned in the following sections.

6.2. Implications for Research

The internship company is a traditional utility company with a bureaucratic setup and years of path dependency. The structure and nature of the organisation is reflective of the situation of the energy market as it has existed for so long. Though the energy market is changing it is not reflective of more dynamic markets like telecommunications where the impact and effect of knowledge acquisition for a new business model creation might differ. This can then be a good area to research in order to critique the findings here.

Work here has focused on the business model creation aspect of the business model change. Further work can be done for business model extension and revision phases and the role knowledge acquisition plays in it.

The Company in its quest of a new business model creation is splitting up the organisation with different mandate for working in completely different sectors. The division is happening from top down with each company having its own board and decision making body. The two different and distinct business models in this case are then separated physically and cognitively. However for an organisation maintaining its existence as it is and still trying to handle two different business models in an ambidextrous way interesting scope for further research shows up. How will this type of an organisation then perform knowledge acquisition and what enablers and also barriers can be there for the acquisition?

6.3. Practical Implications

The proposed framework can be used by managers and leaders to benchmark the knowledge acquisition process for new business model creation. Conditions fostering this process can then be consciously developed and promoted. Being aware of the effect of right

conditions along with the right processes will provide organisational units to plan better and manage resources more effectively.

The criticality of partnership and networking knowledge having been established inter-organisation development and collaboration programmes can be designed.

The human resources department can also act more closely with the different departments of the organisation such as engineering, sales, business development to devise a more effective hiring strategy taking into consideration the acquired knowledge via the new employee will play in the business model change.

Knowledge conversion being seen as the mechanism for greater diffusion of knowledge across the organisation can be consciously acted upon. Trainee programs, knowledge sharing sessions, presentations, and university internships can be structured and monitored to determine the flow of knowledge within the organisation and measure the knowledge density as a parameter.

6.4. Limitations

The transformation of the internship company is still ongoing and they are constantly adapting to the changing nature of this process. Therefore there is not enough empirical validation of the proposed framework.

The internship along with the thesis work though has been helpful in objectively looking at the company has caused serious hindrance in more extensive data collection. The time limitation of this work has also resulted in decreased time to study the ongoing transformation process.

Lack of access to confidential data and less clarity on the exact future roadmap of the company has caused some important aspects of the creative chaos at play to not be discovered.

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Appendix 1 – Interview Guide 1

1. Tell me about yourself and your role at THE COMPANY. (background, different positions within THE COMPANY, duration, why)

Business Model

2. What's your perception of a business model?

Value proposition

3. What are THE COMPANY's different customer groups?
4. What are the various offerings for these customer groups?
5. Why do you think customers choose your products over the ones from your competitors?

Value creation/delivery

6. Can you tell us a typical project of THE COMPANY? What is the process from beginning to end?
7. Where does THE COMPANY have a competitive advantage concerning resources?

Value capture

8. How do you make money per customer segment? Follow-up: What are the additional revenue streams you think can come up in the future?
9. What are the major expenditures of THE COMPANY?

Entrepreneurial Capabilities

Sensing opportunities

10. How does THE COMPANY recognize new opportunities? (operational opportunities, market opportunities, process opportunities, etc.)
11. What do you think are THE COMPANY's strengths and weaknesses when recognizing new opportunities?

Selecting opportunities

12. How does THE COMPANY evaluate the potential of new opportunities?
13. Where is there room for improvement?

Creating internal conditions for realization of opportunities

14. How does organizational culture support opportunity realization (values, norms, symbols, rituals, climate)?
15. How does the company allocate resources for implementation of opportunities?
16. How would you describe the workspace at THE COMPANY? Follow-up: How does it enhance creativity and idea flow (physical environment)?

Actually realizing and exploiting opportunities

17. Once you identify an opportunity, how do you implement it? Follow-up: Can you elaborate that with respect to 100Koll?
18. How do you view upon THE COMPANY's capability to realize opportunities?

Adapting and modifying the exploitation of realized opportunities

19. Is THE COMPANY more a hunter or a gatherer when it comes to new opportunities?
20. When is THE COMPANY a first-mover and when a follower?

Appendix 2 – Interview Guide 2

1. Tell me about yourself and your role at THE COMPANY (background, different positions within THE COMPANY, duration, why)
2. THE COMPANY is transitioning from utilities to services. What do you think are its strengths and weaknesses in the services sector?

KNOWLEDGE

3. How did you identify the knowledge required to address the weaknesses?
Follow-up: What external knowledge did you acquire to go forward with the transformation?
4. How did you decide whether to acquire the said knowledge or develop it in-house?
Follow-up: Which one do you prefer more? Why?
Follow-up: In which scenario does it work better? What works when?
5. What is your idea of knowledge in the organizational context?
6. What is your idea about tacit knowledge and explicit knowledge in the context of an organization?
7. Which do you prefer more? Why?
8. How do you transform tacit knowledge to explicit knowledge?

KNOWLEDGE ACQUISITION

9. How would you evaluate the knowledge density within THE COMPANY in this context of transformation?
10. What are the different sources of external knowledge acquisition?
11. What are the partner selection criteria of THE COMPANY in this transformation phase?
12. How did you select Data Ductus as a partner to develop 100 Koll platform?
13. Do you think THE COMPANY has/had a competence gap?
14. What is your hiring strategy to form a fast paced team?
15. What personality traits do you look for? Do you value entrepreneurial mindset in this context?

ABSORPTIVE CAPACITY

16. How do you assimilate an externally acquired knowledge within the organization?
Follow-up: What processes do you have to foster organizational learning?
17. How important is it to have existing idea about the external knowledge you want to acquire?
18. Did THE COMPANY have such investments in R&D from before?
19. Did external knowledge acquisition trigger parallel in-house competence development?
20. How do you find the balance between ‘buying’ and ‘making’ of knowledge?
21. Do you think acquiring the right knowledge empowered you on business model change?