



The Use of Knowledge Management in the Portuguese Footwear Industry

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Abstract in English

The goal of this thesis is to show if knowledge management is competitively present in the strategies of the top managers of the Portuguese Footwear Industry, contributing potentially to the creation of competitive advantages.

With literature review findings and its discussion, a framework is proposed, to allow the identification of knowledge management by companies, with a strategic focus. This framework builds on the characteristics of three strategic models: Resource-Based View, Knowledge-Based View and Dynamic Capabilities, which can be applied to assess if knowledge is being managed strategically.

Using this framework, the interview's key questions are defined in order to determine if the interviewed companies are managing knowledge strategically, and in which strategic model best explains the companies' strategies. With seven open questions, interviews to the managers of six of the most historic and important footwear factories in the city of São João da Madeira, known as the "Portuguese Footwear Capital", are conducted. Crossing the answers with the framework built, made it possible to realize that the six companies' strategic model fits in Dynamic Capabilities framework. Of the three models, Dynamic Capabilities is the one that gathers the more characteristics of the strategies followed by the interviewed companies, since all companies are very flexible, fast in reaching the market with new innovations and trends.

This work concludes that knowledge management is applied strategically, and an apparent enabler of the competitiveness of these companies within a fast changing industry. This work also concludes that these essentially family-owned firms ensure, through knowledge management, that the expertise and knowledge acquired with years of experience does not get lost with the personnel changes and is applied to improve its value chain, to make them more innovative and maintain their competitiveness in the footwear market.

Abstract in Portuguese

O objectivo desta tese é demonstrar se a gestão do conhecimento está competitivamente presente nas estratégias dos gestores de topo da indústria portuguesa do calçado, contribuindo potencialmente para a criação de vantagem competitiva.

Com as conclusões do estado da arte e a sua discussão, um *framework* de análise é proposto, de forma a permitir identificar se as empresas fazem uma gestão estratégica do conhecimento. Este *framework* consiste nas características dos três modelos estratégicos: *resource-based view*, *knowledge-based view* e *dynamic capabilities*, que possibilitam que este *framework* seja aplicado no sentido de avaliar se o conhecimento está a ser gerido de forma estratégica.

Através deste *framework*, as perguntas chave das entrevistas foram definidas, permitindo determinar se as empresas entrevistadas estão a usar a gestão do conhecimento estrategicamente, e qual é o modelo que melhor explica a estratégia das empresas. Com as sete perguntas abertas, as entrevistas aos gestores de seis das mais históricas e importantes fábricas da cidade de São João da Madeira, também conhecida como a “Capital do Calçado”, foram realizadas. Cruzar as respostas com o *framework*, possibilitou concluir que o modelo estratégico da *framework* que melhor explica a estratégia das empresas é o *dynamic capabilities*. Dos três modelos, *dynamic capabilities* é o que reúne mais características das estratégias seguidas pelas empresas entrevistadas, pois todas são flexíveis e rápidas a entrar no mercado com as novas tendências e inovações.

Esta tese conclui que a gestão do conhecimento é feita estrategicamente, tornando-se um facilitador de competitividade destas empresas, de uma indústria em constante e rápida mudança. Esta tese também conclui que estas empresas familiares asseguram, através da gestão do conhecimento, que o seu conhecimento adquirido com anos de experiência não se perde com as mudanças de pessoal, e é aplicado de forma a melhorar a sua cadeia de valor, tornando-os mais inovadores, mantendo assim a sua vantagem competitiva na Indústria do Calçado.

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1. Introduction

1.1 Objective

The objective of this study is to show that knowledge management is competitively present in the strategies of the top managers of the Portuguese footwear industry, contributing potentially to the creation of competitive advantages.

As seen in the literature review Chapter, many studies have been done on the benefits and improvements that knowledge management brings to large companies. In fact, a study from KPMG in 2000 revealed that “more than 80% of the larger companies have officially introduced KM’ strategies” (Bahlmann and Huysman 2008).

This work focuses on small-medium enterprises; more specifically on companies specialized in manufacturing footwear, from the Portuguese municipality known as “The footwear Capital”.

According to the academic literature, there is the agreement that “innovation, knowledge and learning have become main sources of wealth, employment and economic development in advanced regions and nations. In fact, in recent years, a considerable body of work has been developed to understand and explain this shift towards a knowledge-based economy or a learning economy” (Todtling, Lehner and Trippel 2006). In this knowledge-based economy era, knowledge has become an “important resource for enterprise, instead of physical labor, capital and natural resources” (Wenhong and Jianhua 2009). “The success of the enterprise depends more and more on the quantity and quality of knowledge owned by it”(Wenhong and Jianhua 2009). Authors like Grant (1996) and Nonaka et al. (2001) cited in Fard and Selseleh (2010), “claim that knowledge is the main source of competitive advantage”.

As a consequence, “knowledge management has been recognized as a strategic competence through which organizations can address their need for supporting innovation, improving business performance and sustaining their long-term competitive advantage” (Alberghini, Cricelli and Grimaldi 2009).

Small-Medium Enterprises (from now on designated as SMEs) also use knowledge management, and their success “can be linked to how well they manage their knowledge” (Zanjani, Mehrasa & Modiri, 2008). Knowledge Management is thus considered to be important for SMEs, for leading their efforts towards competitiveness (Zanjani et al. 2008). Although, it is a fact that “SMEs do not manage

knowledge the same way as larger organizations, because they must do more with less, and have to be creative in working around these limitations in order to manage knowledge” (Desouza & Awazu cited in Zanjani et al. 2008).

The economic relevance of the SMEs comes from the fact that they “make substantial contributions to national economies and are estimated to account for 80% of global economic growth” (Pavic, Koh, Simpson & Padmore 2007 cited in Zanjani et al. 2008).

“To date, the focus of the majority of knowledge management research has been on large firms” (Levy et al. 2001 cited in Clarke and Turner 2003). Therefore, this study focuses on discovering if knowledge is managed strategically by the managers of the SMEs of the Footwear Manufacturing Industry.

1.2 Methodology and structure

The following Research Question is proposed: “Is knowledge Management applied strategically by Portuguese Footwear Industry managers?”

To answer this research question, the following two hypotheses are suggested: (H1) Knowledge is also managed in small-medium enterprises. (H2) The Portuguese footwear industry benefits from knowledge management.

Following the assumption that, knowledge management has the potential to create and sustain competitive advantage, the (H1) and (H2) are suggested. These hypotheses are addressed with the analysis of the literature review and with interviews conducted to the owners of the six leading footwear manufacturing companies in São João da Madeira.

This study begins with literature review, which contains all the writings collected for this dissertation. The literature review Chapter starts with the importance of knowledge in today’s economy, which leads to knowledge management and its connection with strategic management theory, namely dynamic capabilities, the resource-based view and the knowledge-based view of the firm, and their impact on developing and maintaining a firm’s competitive advantage. In this chapter, it is also overviewed the

management of knowledge in small-medium enterprises, its applicability, the advantages it brings and the differences from larger firm's knowledge management.

The second phase of this study is the analysis of the Portuguese Footwear Industry regarding the use of Knowledge Management. More specifically, it begins with the analysis of the literature review regarding the possibility of creating and sustaining competitive advantage through Knowledge Management, its analysis with the strategic models Resource-Based View, Knowledge-Based View, Dynamic Capabilities and its applicability to smaller companies, more specifically the footwear manufacturing industry. With the Porter's Five Forces Model and Value Chain, one will be able to access if this industry is competitive and if benefits from knowledge management.

Finally, with the literature review and the discussion of knowledge management and the three strategic models, a framework is proposed, to allow us to identify if companies manage knowledge in a strategic way. This framework consists on the characteristics of the three strategic models: Resource-Based View, Knowledge-Based View and Dynamic Capabilities, which can be applied to assess if knowledge is being managed strategically.

Using this framework, the interview's key questions were defined, making it possible to determine if the interviewed companies are managing knowledge strategically, and in which strategy is focused. After having the framework created, and the questions defined, the managers of six of the most historic and important footwear factories in the city of São João da Madeira will be interviewed.

By crossing the interviews with the framework built, it will be possible to conclude if the companies manage knowledge strategically, thus answering the research question: "Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?"

2. Literature Review

This chapter resumes previous studies about knowledge management, dynamic capabilities, resource-based view and knowledge based-view, focusing on the benefits this approach brings to the strategy and market positioning of a firm.

The purpose of the literature review is to introduce each of the above mentioned concepts, which are vital for the understanding of this thesis and for answering the research question. Due to the fact that to answer the (H1): Knowledge is also managed in small-medium enterprises; it has to be explained the functioning and significance of knowledge management, the strategic models, dynamic capabilities, resource-based view and knowledge based-view, and how knowledge management can be applied to SMEs. The purpose is to also have sufficient data to support the answer to (H2) The Portuguese footwear industry benefits from knowledge management.

2.1 Knowledge

“When talking about a firm, knowledge can be found (Nicolescu, et al., 2003 cited in Ogrea et al. 2009) at its work force (human capital), into its clients’ needs and preferences (clients capital), or into its products, processes, capabilities and systems (structural capital)”. So, as a result, “the value of the knowledge assets could easily be much bigger than the value of the tangible assets. There are three major processes regarding knowledge that take place into a firm: Acquiring knowledge—through individual and organizational learning processes; creating knowledge—as inventions, innovations, etc.; and using knowledge—through all the decisions and actions which are eventually transformed into products, services or new knowledge”. The usage of knowledge enables a firm to assure competitive advantage over others for a long time (Ogrea et al. 2009).

Knowledge exists within the people, products, and processes (Grant 2007 cited in Alberghini et al. 2009). Also, Knowledge can be defined as a “mix of experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information”(Davenport and Prusak, 1998; and May and Taylor, 2003 cited in Arora, et al. 2010).

2.1.1 Explicit knowledge vs. tacit knowledge

“Knowledge is the understanding gained through experience, observation or study” (Barquin, 2006 cited in Doval 2007), and through the different forms knowledge has, “it is recognized as a crucial business asset, to be utilized for the development of new products and services, and hopefully leading to competitive advantage” (Rennols and Al-Shawabkeh 2008).

Those different forms of knowledge can be:

- Explicit knowledge: databases, books, papers, videos etc.
- Tacit knowledge: in people’s mind, making it harder to share and explain
- Implicit knowledge: in people’s mind, but it can be explained (Doval 2007).

These three forms of knowledge exist in all types of organizations, but sometimes, their importance to the development of strategies to operate successfully within the market, is not recognized by the managers, that are still unaware of these knowledge key role in strategic management (Doval 2007).

Knowledge is an asset that allows defining action plans and decision making. It is an “intangible asset imbedded in individual workers in organizations. Tacit knowledge can become explicit organizational knowledge with deliberate efforts on the part of management to encourage personal and professional growth of knowledge workers, to encourage sharing of knowledge and skills throughout the organization, and by developing a knowledge-sharing culture and environment in the organization” (Steyn, 2003 cited in Brewer and Brewer 2010).

Regarding the tacit knowledge, it is the personal know-how, insights, experiences and intuition. Meaning that, tacit knowledge, can’t be seen or heard by others. On the other hand, the explicit knowledge is the knowledge that can be shared through different channels, such as: pictures, character, language, videos, figures or knowledge products containing patent and software. (Wenhong and Jianhua 2009).

“Explicit knowledge is ‘knowledge about’ and can be easily stored, retrieved, shared and disseminated within organizations” (Nunes, Annansingh, Eaglestone & Wakefield 2006 cited in Zanjani et al. 2008). On

the other hand, “tacit knowledge is ‘knowing how’ and is often embedded in organizational routines. If tacit knowledge cannot be codified it should be internalized by observation and practice, but its transfer is slow, costly and uncertain” (Gils and Zwart 2004 cited in Zanjani et al. 2008). “Management of tacit knowledge has been identified as a critical aspect in knowledge management” (Arora et al. 2010).

Nowadays both tacit and explicit knowledge are known as important sources of competitive advantage, leading to value creation. Therefore, it makes knowledge an indispensable asset when developing ambitions and dynamic core competences. “Moreover, knowledge that firms acquire is a dynamic resource that needs to be nourished and managed carefully” (Hsien Liao and Chien Hu, 2007, Massa and Testa, 2009, Frenza and Gillies, 2009 cited in Madhoushi and Sadati 2010).

When a company is able to successfully create new knowledge, through transforming implicit knowledge into explicit knowledge, and linking both internal and external sources of information, it is perceived as capable of having competitive advantage. (Valkokari & Helander 2007 cited in Zanjani et al. 2008).

2.1.2 The Importance of knowledge

Due to the fact that a “firm’s ability to obtain new products and other aspects of performance is inextricably linked to the knowledge of its human resources” (Foss and Laursen cited in Cabrales, Luno & Cabrera 2009), “the most distinctive and inimitable resource available to firms is people-embodied knowledge, which enables to manipulate and transform other organizational resources effectively” (Argote & Ingram, Foss & Kogut and Zander cited in Cabrales, Luno & Cabrera 2009). In addition, “knowledge-based resources may be particularly important for providing a sustainable competitive advantage” (McEvily & Chakravarthy, 2002 cited in Cabrales, Luno & Cabrera 2009), “for playing an essential role in the firm’s ability to innovate” (Galunic & Rodan, 1998 cited in Cabrales, Luno & Cabrera 2009), and “for improving performance” (Wiklund & Shepherd, 2003 cited in Cabrales, Luno & Cabrera 2009). As a result, it can be concluded that “competitive advantages are increasingly derived from knowledge and technological skills and from experience in creating new products” (Alegre, Lapiedra, & Chiva, 2006, and in Teece, Pisano & Shuen, 1997 cited in Cabrales, Luno & Cabrera 2009).

Therefore, knowledge is important due to its capacity to improve a firm's efficiency and effectiveness of the firm, to exploit market opportunities, and neutralize potential threats (Lepak & Snell, 2002 cited in Cabrales, Luno & Cabrera 2009). When a firm's employees possess this type of valuable knowledge, they are usually willing to apply it (Costa & McCrae, 1992 and Taggar 2002 cited in Cabrales, Luno & Cabrera 2009).

Nevertheless, "valuable knowledge is a necessary but not sufficient condition for developing product innovations. That is, R&D departments will take advantage of their employees' valuable knowledge, but they will also need other features such as creativity, entrepreneurship, and unique knowledge to develop product innovations" (Cabrales, Luno & Cabrera 2009).

Knowledge is unique, and it is capable of enabling a competitive differentiation, through valuable but general resources and capabilities that can be used as sources of competitive parity (Barney, 1995 and Snell et al. 1999 cited in Cabrales, Luno & Cabrera 2009). On top of this, "uniqueness refers to the degree of content specificity of the knowledge and its difficulty in being transferred to other organizations" (Lengnick-Hall 2002 cited in Cabrales, Luno & Cabrera 2009).

Not to forget that "knowledge must be permanently enhanced and updated, it is intrinsically coupled to not knowing, it has relevance for a system and it is constituted within and part of human experiences, it is a non-substantial good that is generally not used up by its manifold usage, it expands during its usage, it can be compressed, it can replace other economic resources and the costs of reproducing knowledge are generally very low and are further diminished by technological innovations and progress" (Doval 2007).

When businesses manage to "efficiently capture the knowledge embedded in their organizations and deploy it into their operations, productions and services will have an edge over their competitors" (K.Y.Wong & E. Aspinwall 2005, cited in Zanjani et al. 2008).

2.2 Knowledge Management

“In the present competitive climate where the only certainty is uncertainty, knowledge is considered the main distinguishing factor of business success and is seen as the foundation of organization's competitive advantage and innovation. Hence knowledge needs to be appropriately managed. Management of knowledge becomes as an important managerial task and an integral part of strategic management. Indeed, Knowledge Management (KM) focuses on managing different knowledge processes such as acquiring, creating, sharing, storing and applying knowledge with objective of innovation in organizations. So, KM is an ideal vehicle to enable innovation. Innovation deals with the creation of new products and new processes. Organizations that continually innovate are perceived to have competitive advantage over those that fail to exploit opportunities for innovation” (Madhoushi and Sadati 2010).

The existing literature on Knowledge Management defends that nowadays, having competitive advantage and being innovative relies on firm's capacity to develop and deploy its knowledge-based resources (Madhoushi and Sadati 2010). Therefore, in the current knowledge economy age, knowledge management is an effective choice to promote enterprise's core competitiveness (Li, Li, and Zhou 2010).

2.2.1 Knowledge Management Definition

Knowledge management is the “processes through which organizations develop, organize, and share knowledge, which can lead to a source of sustainable competitive advantage” (Hatch & Dyer, 2004 cited in Brewer and Brewer 2010). Therefore, in companies that recognize the importance of managing their knowledge, knowledge is considered to be the key asset to make them a competitive organization (Geeta, 2010).

Rao (2005), cited in Alberghini et al. (2009), “defines knowledge Management (KM) as a systematic discipline and set of approaches to enable information and knowledge to grow, flow and create value in an organization”.

For Grant, a more concrete definition of KM is: “It is a business process that formalizes the management and use of enterprise’s intellectual assets. KM promotes a collaborative and integrative approach to the creation, capture, organization, access and use of information assets, including the tacit, not captured knowledge of people”.

Rodriguez Perez, (2003) cited in Madhoushi and Sadati (2010) consider knowledge management to be a process through which a company may achieve competitiveness.

“Knowledge management refers to a series of management activities, which include defining core-competency to enhance the enterprise's competitiveness, supporting knowledge creation and its accumulation in knowledge management system and providing essential knowledge at the right time to an individual of the organization. Meaning that, knowledge management is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives” (Geeta, 2010).

“The essence of knowledge management is also the firm’s ability to combine high value form with experience, context, interpretation, and reflection, and then apply it to decisions and action” (Stewart et al., 2000 cited in Arora et al. 2010).

Knowledge management has two key aspects:

- “Treating the knowledge component of business activities as an explicit concern of business reflected in strategy, policy, and practice at all levels of the organization” (Hauer I., 2009).
- “Making a direct connection between an organization’s intellectual assets – both explicit [recorded] and tacit [personal know-how] – and positive business results” (Hauer I., 2009).

More concretely, KM is managing a firm’s knowledge in a systematic and organizational process, to acquire, apply and share the tacit and explicit knowledge of employees, improving organizational performance and creating value (Boh 2007 cited in Zanjani et al. 2008).

2.2.2 The need for knowledge Management

“Presently, half of the world top 500 enterprises have established their KM system and carried out the knowledge management method which brought them remarkable achievement. In some famous enterprises such as Microsoft, IBM and Philip, a position named Chief Knowledge Officer (CKO) was separately set up to engage in the management of the enterprise’s knowledge. Its function is to create, use, store and transfer knowledge, attaining sustained development of the enterprise through continuous knowledge production and knowledge consumption”(Wenhong and Jianhua 2009).

Serban and Luan (2002) cited in Brewer and Brewer (2010), quoted five reasons the growing interest in the field of KM: “(a) information overload and chaos, (b) information congestion, (c) information and skill segmentation and specialization, (d) workforce mobility and turnover, and (e) competition”.

The increase in the workforce changes, through mobility and profits/losses, created the need for organizations to “appreciate the necessity of capturing, retaining, and sharing knowledge, skills, and abilities that may be lost with employee departures” (Brewer and Brewer 2010).

2.2.3 The importance of Knowledge Management for companies

“Knowledge management is a strategic competence through which organizations can address their need for supporting innovation, improving business performance and sustaining their long-term competitive advantage”(Alberghini, Cricelli and Grimaldi 2009). “The aim of knowledge management is knowledge innovation, which is the interactional result of different knowledge procedure containing knowledge production, knowledge sharing, knowledge application and knowledge innovation”(Wenhong and Jianhua 2009).

The goal of knowledge management is to leverage a firm’s knowledge, making it the basis of future competitiveness. Correctly leveraged and applied knowledge, has the capability of making firms more innovative, sustainable and competitive (Zanjani et al. 2008).

For companies that must rely on their employees’ capacity to quickly and efficiently make on-time decisions, knowledge management is crucial (Byrnes, Bromfield, Taskent and Doane 2005). Knowledge

management has the power to provide a firm's talented people with more knowledge, "allowing them to provide faster and better quality service to their clients" (Byrnes et al.2005).

"As the provider and final user of knowledge, the improvement of staff quality necessarily drives knowledge management level up, and promotes core competitiveness of power generating enterprises in the end" (Li et al. 2010).

2.2.4 Knowledge Management Best Practices

According with Rasmus (2002) cited in Alberghini et al. (2009), "successful knowledge management organizations share some characteristics which range from technology infrastructure to a strong belief in the value of knowledge sharing and collaboration". Furthermore, "Competitive advantage is critically dependent upon a company's ability to increase the effectiveness with which it acquires shares and exploits information and know-how".

When addressing people oriented factors, those include "leadership, a vision actively promoted by top management, and culture, the combination of shared history, expectations, unwritten rules, and social customs that influence the perception of actions and communications of all employees." In terms of process oriented factors, they include "systematic processes, which help ensure consistent, efficient execution and adherence to policies and to consolidate the company culture and measurement, to provide clear business benefits. Technological factors include collaborative and people oriented technologies" (Alberghini et al. 2009).

Wild and Griggs (2008) cited in Alberghini et al. (2009) "defend that it is imperative to exist some kind of balance between KM and information technology."

Knowledge management and business strategy are linked in nowadays economic environment. Moreover, the complexity of knowledge management makes it "difficult to directly translate a firm's competitive strategy into the specific knowledge management activities" (Wu and Lin 2008).

2.2.5 Knowledge Management Processes

“Companies are coming to view knowledge as the most valuable and strategic resource to be competitive in the new economy. Effective firms on using knowledge resources require KM models or solutions. The main focus of the efforts has been on technological perspective to enhance an organizational ability to create, store, and use knowledge. The organizations should first determine what knowledge resources are valuable to the competition before making the investment of the knowledge. They must strategically assess the value of knowledge resources and further base the output on defining the knowledge strategy. This knowledge strategy is further translated into technical infrastructure or implementation approach to support KM practices, including creation, conversion, store, and use, for both tacit and explicit knowledge forms. The firm performance is finally presented as the results of this implementation process.” (Wu and Lin 2008)

Jashapara (2004), cited in Fard and Selseleh (2010), “defines Knowledge management in the form of a four-looped process as effective learning process blended in creation, organizing and sharing (both tacit and explicit knowledge). Applying knowledge, leads to upgrade of organizational intellectual capitals and improvement of performance”.

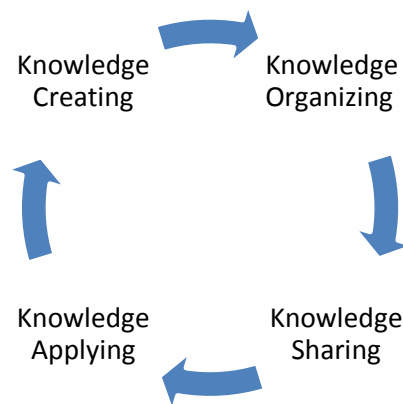


Figure 2: Knowledge Management Processes. In Jashapara 2004 cited in Fard and Selseleh 2010

One of the processes demonstrated in figure 2 of knowledge management cycles, is knowledge creating, which is a never-ending procedure for creating new ideas and processes, new paradigms and principles. The Knowledge organizing process is storing knowledge in different ways, to allow preserving it and to enable employees to consult it. Regarding the knowledge sharing process, it can be described as the

“mutual knowledge flowing and scattering among people and mechanical and non-mechanical bases for knowledge. In fact 90% of the knowledge management success depends on right knowledge sharing.” Finally, knowledge applying is using the knowledge gained “without any bias or prejudice against one who is the source of it” (Jashapara 2004 cited in Fard and Selseleh 2010).

The process of knowledge management is “concerned with the entire process of discovery and creation of knowledge, dissemination of knowledge, and the utilization of knowledge. Knowledge management is a set of tools and processes, used by knowledge workers in an architected environment, created through an enterprise initiative, to obtain maximum returns from its data, information, intelligence and knowledge. Knowledge management is the process through which an enterprise uses its collective intelligence to accomplish its strategic objectives” (Barquin, 2006).

Moreover, knowledge management is a planned process with the purpose of allowing not only the continuous creation and gaining of knowledge, but also spreading and applying both tacit and explicit knowledge to enable innovation and competitive advantage (Madhoushi and Sadati 2010).

“Knowledge management is only valuable when it can sufficiently address the peculiarities of knowledge and application of this knowledge to business processes” (Stewart et al. 2000 cited in Arora et al. 2010).

“The elusive nature of knowledge makes the process of storing, processing and transferring knowledge difficult” (May and Taylor, 2003 cited In Arora et al. 2010). “Unlike information, knowledge cannot be objectively stored in databases. Additionally, context specific knowledge should maintain its context in all forms. Effective transfer of explicit knowledge depends on a frame of reference as well as a formal coding to maintain accuracy of knowledge” (Hustad, 2004 cited in Arora et al. 2010).

Knowledge management is all about the people, because knowledge is embed in them, and they are the only ones capable of properly sharing and applying knowledge. So, if employees are not willing to participate in knowledge management in a positive way, it will not be a successful activity (Li et al. 2010).

“In practice, knowledge management often encompasses identifying and mapping intellectual assets within the organization, generating new knowledge for competitive advantage within the organization, making vast amounts of corporate information accessible, sharing of best practices, and technology that enables all of the above. KM comprises activities focused on the organization acquiring knowledge from

many sources, including its own experience and from that of others, and on the effective application of that knowledge to fulfill the mission of the organization” (Hauer I., 2009).

“Knowledge management is the integration procedure of data collection, classification, analysis, sharing within the organization. This procedure combines Management Information System with learning experiences. It uses the collective wisdom to improve the entire ability of innovation and managing the changes. Through the use of open structures, enterprises can collect, process, and share enough knowledge to upgrade employees’ creativity and make enterprise grow. This is the essence of KM, to fully explore, accumulate and use enterprise’s knowledge resources and transform them into corporate competitiveness” (Wenhong and Jianhua 2009).

“Forecasting, planning, and adapting to change are essential for organizations to remain competitive. Therefore, continuous improvement via creativity and innovation becomes a competitive necessity. Identifying and classifying the knowledge bases essential to an organization’s ability to remain a viable competitive entity is necessary” (Brewer and Brewer 2010).

Not to forget that the “main context for determining the activities of KM in a firm is the firm’s competitive strategy” (Davis, 1998; Earl, 2001; Desouza & Awazu, 2005 cited in Wu and Lin 2008), because the “firm’s competitive strategy provides a blueprint for predicting the need of future knowledge resources and further determining the activities of KM to effectively support the firm’s mission and objective” (Wu and Lin 2008).

For a company to be capable of gaining competitive advantage through managing strategically its knowledge, the process of knowledge management has to be in conformity with the strategy of the company (Zack, 1999a; Dunford, 2000; Teece, 2000 cited in Wu and Lin 2008).

With the increase of firms following a knowledge management strategy, came the interest in the role of information technologies when implementing a knowledge management strategy, so that the information technology can support the knowledge processes (Hansen et al., 1999; Zack, 1999; Bloodgood & Salisbury, 2001; Carlsson, 2003 cited in Wu and Lin 2008).

Only by linking the knowledge management tools with the strategic purposes and KM processes it is possible to easily identify the KM tools which better support KM implementation to effectively reach KM strategic goals (Alberghini et al. 2009).

The possible success of KM depends strongly on the selection of initiatives that align with organizational strategy (Alberghini et al. 2009). According with Rasmus (2002) cited in Alberghini et al. (2009) “the best approach to targeting knowledge management initiatives identifies solutions that can be integrated into the general context to support strategic goals and objectives. To make business strategy part of knowledge management initiatives, the first step of this model consists in creating a strategic purposes’ list congruent with wider corporate strategy”.

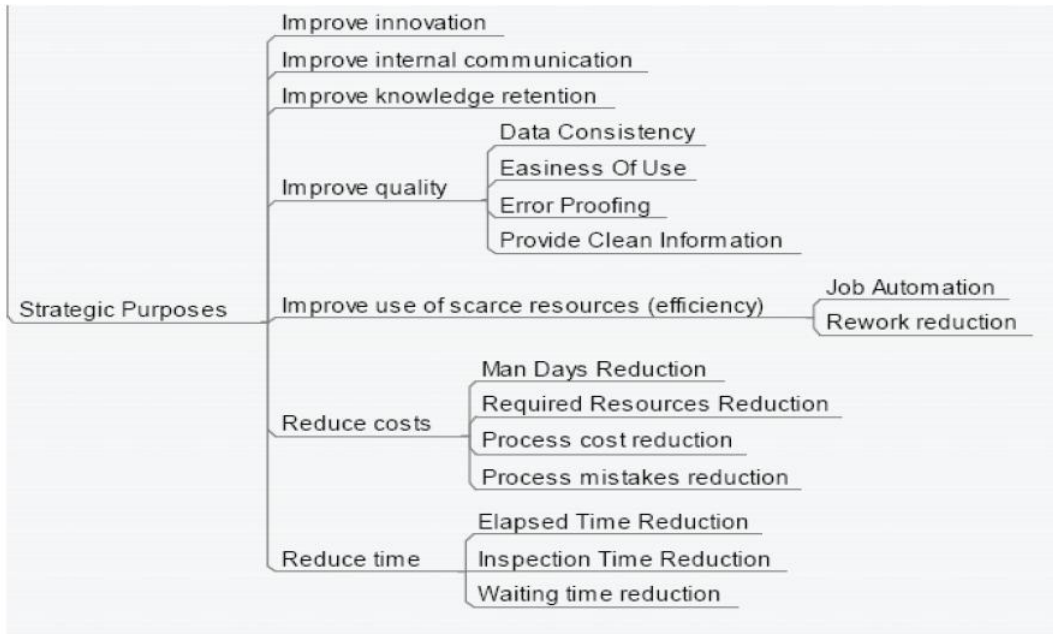


Figure 3: Strategic Purposes (Alberghini et al 2009)

It was discovered in (Alberghini et al. 2009) study that there are five key processes: “knowledge generation, knowledge organization, knowledge transfer, knowledge application and knowledge consolidation. In addition, it was also discovered that knowledge is never still and these processes follow each other in a cycle.”

Regarding knowledge generation process, “it is strategically important for organizational learning and innovation, since it encompasses two main sub processes: Knowledge Creation and Knowledge Acquisition. Knowledge can be created either as explicit or tacit knowledge. Explicit knowledge consists in anything that can be documented, archived and codified, often with the help of IT. Tacit knowledge resides within individuals and it is harder to capture, evaluate, share and leverage. Knowledge acquisition permits to identify and capture information from technology sources” (Alberghini et al. 2009).

Knowledge Organization is extremely important, since for Knowledge to be available to be used within the organization it must be correctly stored. Grant (2007) cited in Alberghini et al. (2009) states that “Knowledge structuring implies information interpretation, filtering, categorization and best practices. Knowledge storage permits to find and compare information and includes information tracking and retrieval”.

Knowledge Transfer is extremely challenging, since it is hard to figure out how to transfer knowledge among the organization. “It is more complex than a communication problem because knowledge resides in organizational members, tools, tasks, and their sub networks” (Argote & Ingram 2000 cited in Alberghini et al. 2009). On top of that, “knowledge in organizations is mainly tacit or hard to articulate” (Nonaka & Takeuchi, 1995 cited in Alberghini et al. 2009). Knowledge sharing is marked out by making available what is already known, it makes use of collaboration and collaborative supports, may imply personalization and provides timely information and Knowledge distribution is marked out by disseminating and making available new information, usually with formal communications (Alberghini et al. 2009).

Knowledge Application is the “end goal of knowledge practice, involving Knowledge utilization and evolution. Knowledge Utilization involves knowledge re-creation, producing and value adding processing. It implies decision making, contextualizing. On the other hand, Knowledge Consolidation involves applying the knowledge acquired to a range of other understandings and contexts. Knowledge disposition involves knowledge integration and targeting and decision making. It implies indexing, collaboration and application. Knowledge validation involves information and ideas and implies information codification and qualification” (Alberghini et al. 2009).

In the competitive and fast changing business environment of nowadays, organizations must possess an indispensable quality: the ability to cope with change. In order to do this, organizations, must properly implement the knowledge management cycle, and hence “meet great success and triumph” (Fard and Selseleh 2010). Knowledge will be a “competitive advantage, which will reflect in their goods and services, because organizations which manage their knowledge better will deal more successfully with the challenges of the new business environment. KM is considered to be central for achieving process and product improvement, executive decision making and organizational adaptation and renewal” (Earl, 2001 cited in Fard and Selseleh 2010).

2.2.6 Knowledge Management Limitations

Knowledge transfer is considered to be one of knowledge management limitations. Szulanski (1996), cited in Dyer and Hatch (2006), “suggests that the major barriers to intra-firm transfers of knowledge (best practice) include: (1) lack of absorptive capacity on the part of the recipient of knowledge; (2) lack of credibility on the part of the source of knowledge; (3) lack of motivation on the part of the ‘source’ or ‘recipient’ of knowledge; (4) arduous relationship between the source and recipient; and (5) causal ambiguity (due to the complexity of knowledge)”. He found that “Contrary to conventional wisdom that places primary blame on motivational factors, the major barriers to internal knowledge transfer are shown to be knowledge-related factors, such as the recipient’s lack of absorptive capacity, causal ambiguity, and an arduous relationship between the source and recipient”. Also, both Szulanski (1996) and Nelson and Winter (1982) cited in Dyer and Hatch (2006) “additionally point to ‘context’ (the environment) as another potential barrier to replication”.

“According to a 2004 report by the Delphi Group, knowledge managers typically spend up to 30% of a typical eight-hour day searching for information they need to perform their jobs—the majority of which is stored electronically and should otherwise be easily identified. As a result, the average Fortune 500 Company’s productivity is dramatically affected by this ineffective knowledge sharing [2]. Knowledge management is not just about sharing knowledge. Most people in a given organization are already dealing with information overload; it is not like anyone needs more to share” (Byrnes et al.2005).

Nevertheless, (Handzic and Hasan 2003 cited in Fard and Selseleh 2010) state that “the status of knowledge management in organizations, however, reveals that they act poorly in the loops of knowledge management cycle: they do not value knowledge creation, lose easily the knowledge which already own, forbid knowledge sharing, and do not invest on knowledge application”.

Another problematic characteristic of knowledge management is managing tacit knowledge (Arora et al. 2010). Due to the difficulty in transferring the personal knowledge as it is, meaning without flaws and with the complete know-how (Heiman and Nickersonn 2002).

Transferring knowledge comes with different costs for a company (Heiman and Nickersonn 2002). “Knowledge transfer costs arise because of cognitive limitations. For instance, human minds are limited

in the rate at which knowledge can be assimilated, in the amount of knowledge that can be accumulated, and in the amount of knowledge that can be applied” (Heiman and Nickerson 2002).

2.3 Resource-Based View and Knowledge Management

“The focus of an enterprise has changed from Porter’s environmental view to a resource-based view and during the last decade many authors within the resource-based view have paid particular attention to knowledge as the key resource within organizations. Thus, Knowledge Management has become increasingly important for all organizations” (Valkokari & Helander 2007, cited in Zanjani et. al 2008).

2.3.1 Resource-Based View Definition

“The core principles of the resource-based view are that resources and capabilities, which are simultaneously valuable, rare, imperfectly imitable and non-substitutable, are the main source of above-normal rents and competitive advantage”(Barney, 1991; Wernerfelt, 1984 cited in Easterbery-Smith and Prieto 2008).

The resource-based view defends that competitive advantage comes from both tangible and intangible assets that are valuable, rare, imperfectly imitable, and sustainable. A firm possesses: assets, capabilities, organizational processes, attributes, information and knowledge (Zheng and et.al, 2009 Madhoushi and Sadati 2010).

Halawi et al, (2006) cited in Madhoushi and Sadati (2010) “developed four criteria for assessing what types of resources would present sustainable competitive advantage. These were value creation for the customers, rarity compared to the competition, inimitability, and substitutability”.

It can be concluded that the resource based view focus is on strategies for developing both new and existing assets of a company. (Wernerfelt, 1984 cited in Teece et al.1997).

2.3.2 Resource-Based View of a Firm

Originally, “the resource-based view of the firm was a conceptual framework developed in order to explain the factors that create competitive advantages and emphasize more on internal resources of the firm than on the external factors in search for competitive advantage” (Ogreaan et al. 2009). “According to this theory, a firm performance has very much to do with a unique configuration of resources that can be valued by comparing it with others. The two assumptions the theory was built on are: The heterogeneity of resources (each firm operates with a unique and singular combination of resources); the motionlessness of resources (some resources that are characteristic for a firm are difficult or much too expensive to imitate, or the offer is not elastic)” (Ogreaan et al. 2009).

Collins & Montgomery, (1995) cited in Ogreaan et al. (2009), “argued that the resource-based view of the firm “sees companies as very different collections of physical and intangible assets and capabilities. No two companies are alike because no two companies have gone through the same set of experiences, acquired the same assets and skills, or built the same organizational cultures”.

Based on the Resource-Based View (RBV) of a firm, “some authors note that not only should a firm’s resources be valuable and unique to facilitate superior performance, but also the firm must have an appropriate organization in place to take advantage of these resources” (Barney & Wright, 1998; Foss, 2007 and Pelotokorpi & Tsuyuki, 2006 cited in Cabrales, Luno & Cabrera 2009). These “valuable and unique characteristics of employees’ knowledge create a human capital advantage” (Boxall, 1996 cited in Cabrales, Luno & Cabrera 2009). However, “any human capital advantage may decrease in the long term. Therefore, organizations must define and apply appropriate Human Resource Management (HRM) practices for managing people and link them to the firm’s core capabilities” (Amit & Belcourt, 1999, Peltokorpi & Tsuyuki, 2006; Purcell, 1996 cited in Cabrales, Luno & Cabrera 2009). “In other words, HRM practices can, on one hand, increase the value and uniqueness of the knowledge through internal development, and, on the other, influence employee behavior in the desired direction” (Cabrales, Luno & Cabrera 2009).

“Innovation is one of the main sources of competitive advantage” (Li & Atuahene-Gima, 2001 cited in Cabrales, Luno & Cabrera 2009). “From an RBV perspective, if a company develops innovations based on valuable, rare, inimitable, and irreplaceable resources such as value and unique knowledge, this is lead to higher levels of competitive advantage” (Barney 1991 cited in Cabrales, Luno & Cabrera 2009). “ Firms that offer products adapted to target adapted to target customers’ needs and wants and that market

these products faster and more efficiently than their competitors are in a better position to obtain higher performances and create sustainable competitive advantages” (Alegre et al. 2006, Nonaka & Takeuchi, 1995 and Prahalad & Hamel, 1990 cited in Cabrales, Luno & Cabrera 2009).

Meaning that, innovators can develop markets, define customer preferences, and modify consumers’ basic behavior, leading therefore to an improvement in performance (K.Z. Zhou, 2006 cited in Cabrales, Luno & Cabrera 2009).

“Proponents of the resource-based view have emphasize that competitive advantage results from those resources and capabilities that are owned and controlled by a single firm” (Wernerfelt, 1984; Barney, 1986 cited in Dyer and Hatch 2006). “Consequently, the search for competitive advantage has focused on resources and capabilities that are housed within the firm. Competing firms purchase factors of production (inputs) which cannot be sources of advantage because these factors are either readily available to all competing firms or the cost of acquiring these factors is approximately equal to the economic value they create” (Barney, 1986; Teece, Pisano, and Shuen, 1997 cited in Dyer and Hatch 2006).

“In order to be effective and efficient, strategic management must develop a comprehensive, dynamic and innovative resource-based model—unique for each firm—able to identify the specific intangible assets that may become strategic, their determinants, the interconnections between them, and their integration into successful competitive strategies” (Ogrea et al. 2009).

The resource-based view says that companies with “superior systems and structures are profitable not because they engage in strategic investments that may deter entry and raise prices above long-run costs, but because they have markedly lower costs, or offer markedly higher quality or product performance”. Their competitive advantage “lies upstream of product markets and rests on the firm’s idiosyncratic and difficult-to-imitate resources” (Teece et al. 1997). Their opinion is that “a company’s success or even its future development lies in its ability to find or create a competence that is truly distinctive”.

However, Priem and Butler (2001) cited in Easterbery-Smith and Prieto (2008) “argue that it is essentially a static theory that has difficulty incorporating the evolution over time of the resources and capabilities that form the basis of competitive advantage”. And Teece, Pisano and Shuen, (1997) cited in Easterbery-Smith and Prieto (2008) claim that “it recognizes but does not explain the sources of

heterogeneity, nor does it explain the nature of isolating mechanisms that enable competitive advantages to be sustained”.

2.3.3 Link between Resource-Based View and Knowledge Management

Barney and Wright (1998), cited in Cabrales, Luno & Cabrera (2009), defended that “any resource creates value through either decreasing product/service costs or differentiation product/service in a way that allows the firm to charge a premium price; thus, valuable knowledge will yield high returns in markets, increasing the ratio of benefits to customers relative to their associated costs”.

The resource-based view emphasizes on how knowledge resources improve an organization’s performance (Lian, Chen and Lin 2009).

2.4 Knowledge-Based View and Knowledge Management

“The knowledge and capabilities-based views (KBV) in strategy have largely extended resource-based reasoning by suggesting that knowledge is the primary resource underlying new value creation, heterogeneity, and competitive advantage” (Barney, 1991; Grant, 1996; Kogut & Zander, 1992 cited in Felin and Hesterly 2007).

Knowledge management importance has increased with the enlarged “awareness of the importance of knowledge for the organization’s prosperity and survival, and due to the increased availability of IT to store, distribute and generally ‘manage’ knowledge”. In particular, the ‘knowledge-based view’ of the firm proposes “knowledge as a key resource, and therefore is a development of the resource-based view as a source of competitive advantage” (Grant, 1996; Kogut and Zander, 1992 cited in Easterbery-Smith and Prieto 2008).

2.4.1 Knowledge-Based View definition

According to the knowledge-based view, knowledge is the resource that enables a company to create and sustain competitive advantage (Wu and Lin 2008).

The knowledge-based view of a company defends that its' capacity to create and apply knowledge is its main source of sustainable competitive advantage. (Hsien Liao and Chein hu, 2007 cited in Madhoushi and Sadati 2010).

A role of a manager in a knowledge-based company is to obtain higher profits, through continually creating and applying knowledge (Nickerson and Zenger 2004).

2.4.2 Knowledge-Based View of a Firm

Regarding the knowledge-based theory of the firm, Grant states: "at the heart of this theory is the idea that the primary role of the firm, and the essence of organizational capability, is knowledge integration of knowledge."

In the current economy "the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge" (Zheng and et.al, 2009 cited in Madhoushi and Sadati 2010). So, "in the knowledge-based economic, the definition of competitive advantage is that an organization acquiring, sharing, shortage, application knowledge can strengthen its core competences and develops the organization's own competitive advantage" (Hsien Liao and Chien hu, 2007 cited in Madhoushi and Sadati 2010).

Knowledge-Based View (KBV) is widely considered as a key approach to explain the functioning of a firm (Casselma and Samson 2007). Still, the fact that KBV is a recent theory, and knowledge is hard to quantify and measure, makes knowledge management a complex theory (Hitt and Ireland 1985 cited in Casselman and Samson 2007).

With the increasingly importance of the knowledge-based view, came the focus on knowledge as the essential asset and resource of a firm. Due to the complexity of knowledge production and distribution,

the main role of organizations is to coordinate knowledge (Hayek, 1937 cited In Bahlmann and Huysman 2008).

Nelson and Winter (1982) cited in Nickerson and Zenger (2004) “explicitly define a firm’s knowledge as the input output combinations achievable with all possible mixes and levels of activities known to the firm”. “The state of a firm’s knowledge can be advanced by either absorbing existing knowledge external to the firm or by developing new knowledge by first identifying a problem and then discovering a valuable new solution. Therefore, if a firm is to develop unique knowledge or a unique new capability through any manner other than luck, it must identify a valuable problem and conduct an efficient solution search”. “Managers choose problems while identifying knowledge sets or existing technology either within or outside the firm that are potentially useful in searching for solutions to that problem” (Nelson and Winter 1982 cited in Nickerson and Zenger 2004).

The main focus of knowledge-based view, an extended approach of the resourced-based view, is creating and applying knowledge to achieve competitive advantage (Amburgey and Al-Laham cited in Clarke and Turner 2003).

When it comes to achieve knowledge, a system of HRM knowledge-based practices, is one possibility, since it “enables the internal development of human resources with specific selection, training, development, appraisal, and compensation practices. The aim of selection is to attract the best people to the company in terms of their inherent potential” (Lepak & Snell 2002 cited in Cabrales, Luno & Cabrera 2009). “Informal contacts that favor socializing among the workforce are encouraged and firm-specific training and career development are offered within the company” (Lepak & Snell 2002 cited in Cabrales, Luno & Cabrera 2009). In this way, “individuals receive feedback concerning what they do and how performance can be improved, thus promoting autonomy. Incentives are also used as a form of reward” (Huselid 1995 cited in Cabrales, Luno & Cabrera 2009). “This model of HRM practices enables valuable and firm specific knowledge to be generated by internal development, which helps firms to obtain the benefits of employees’ value-creating potential and firm-specific human capital” (Lepak & Snell, 2002 and Youndt et al., 2004 cited in Cabrales, Luno & Cabrera 2009).

2.4.3 Knowledge-Based View and Knowledge Integration

Knowledge integration is an integrative part of the knowledge-based theory of the firm. Since, the knowledge-based theory defends that the existence of the firm is “its superior ability to integrate multiple knowledge streams, for the application of existing knowledge to tasks as well as for the creation of new knowledge” (Grant 1996 cited Kearns and Sabherwal 2006).

Knowledge integration is distinguished between “‘knowledge integration processes’ and ‘knowledge integration’”. Knowledge integration refers to the outcomes of that knowledge being shared, applied, or combined with other knowledge to create new knowledge” (Grant 1996 cited in Kearns and Sabherwal 2006).

2.4.4 Link between Knowledge-Based View and Knowledge Management

“The knowledge-based perspective has opened the eyes of many organizational scholars and practitioners to the importance of knowledge: in particular, the need to both bring together dispersed knowledge and successfully circulate knowledge so as to transfer individual knowledge to collective knowledge and vice versa. This perspective led to a new field of study, which came to be known as knowledge management” (Bahlmann and Huysman 2008).

Meaning that, knowledge management approaches have naturally evolved from the knowledge-based view, which evolved from the resource-based view (Clarke and Turner 2003).

Nowadays, knowledge management is a key point on the analysis developed on how to acquire competitive advantage in the current economy. “For most writers on the subject, a firm’s competitive advantage is seen to flow directly from its unique knowledge and how it manages that knowledge” (Carlsson 2001 cited in Clarke and Turner 2003). Indeed, Drucker 1995 cited in Clarke and Turner 2003 defended that “in the post-industrial information economy it is ‘knowledge’ that will replace natural resources, capital and labor as the basic resource from which to generate economic wealth”.

“KM is the process of identifying, managing and leveraging individual and collective knowledge to support the firm becoming more competitive” (Carlsson cited in Clarke and Turner 2003). “In studying KM, the dominant perspective adopted by writers from within the management and information

systems (IS) literature is referred to as the knowledge-based view (KBV). The KBV has itself been derived from the resource-based view on sources of competitive advantage developed within the strategic management literature” (DeCarolis and Deeds cited in Clarke and Turner 2003).

“Within the IS and management disciplines, KM has traditionally been linked to the development of strategic management theory. The current dominant approach to KM, which has emerged from within these disciplines, has been the knowledge based view. The KBV itself is derived from the broader RBV on sources of competitive advantage” (Amburgey and Al-Laham cited in Clarke and Turner 2003). “The RBV proposes that an organization’s competitive advantage is derived from those valuable and unique resources that are costly for competitors to imitate. In the case of the KBV, the resources are knowledge-related elements” (Amburgey and Al-Laham cited in Clarke and Turner 2003).

2.5 Dynamic Capabilities and Knowledge Management

Company’s which have succeeded in our world’s competitive business environment have been those which “demonstrate timely responsiveness and rapid and flexible product innovation, coupled with the management capability to effectively coordinate and redeploy internal and external competences” (Teece et al.1997). “This ability, to achieve new forms of competitive advantage has been labeled as dynamic capabilities” (Teece et al.1997).

As Teece, et al. cited in Ogreaan et al. (2009) explained, “the term dynamic refers to the shifting character of the environment: Certain strategic responses are required when time-to-market and timing is critical, the pace of innovation is accelerating and the nature of future competition and markets is difficult to determine. The term capabilities emphasize the key role of strategic management in appropriately adapting, integrating, and re-configuring internal and external organizational skills, resources and functional competencies toward changing environment”. So, “in order to build an effective and efficient strategic management system, firms need to follow the dynamic capabilities framework, which brings together” (Teece & Pisano, 1994 cited in Ogreaan et al. 2009): “Dynamic capabilities → foundations → microfoundations”. The theory “is proposing a knowledge based view of the strategy, which emphasizes building and sustaining competitive advantage on the basis of the knowledge resources and capabilities of a firm. Organizational learning and innovation will be fundamental needs for a firm in order to continuously adapt to a changing environment”.

2.5.1 Capability

“Capabilities refer to a firm’s capability to deploy resources, usually in combination, using organizational processes, to affect a desired end. They are information-based, tangible or intangible processes that are firm-specific and are developed over time through complex interactions among firm’s resources. They are thought as ‘intermediate goods’ generated by the firm to provide enhanced productivity of its resources, as well as strategic flexibility and protection for its final product or service” (Tsai and Jhang 2010).

A capability is firm-specific, because, unlike resources, it is embedded in the organization and its processes. The main goal a capability has is to enhance the productivity of the other resources that the firm possesses (Makadok, 2001 cited in Tsai and Jhang 2010).

Since a capability is firm specific, the “ownership of a capability cannot easily be transferred from one organization to another without also transferring ownership of the organization itself, or some reasonably self-contained subunit of the organization” (Tsai and Jhang 2010). As a result, “capabilities cannot be bought; they must be built” (Makadok, 2001 cited in Tsai and Jhang 2010).

2.5.2 Dynamic Capabilities Definition

“‘Dynamic’ refers to the capacity to renew competences so as to achieve congruence with the changing business environment; certain innovative responses are required when time-to-market and timing are critical, the rate of technological change is rapid, and the nature of future competition and markets is difficult to determine. ‘Capabilities’ emphasizes the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competences to match the requirements of a changing environment” (Teece et al. 1997).

Dynamic capabilities focus on the “development of management capabilities, and difficult to-imitate combinations of organizational; functional and technological skills, it integrates and draws upon research in such areas as the management of R&D, product and process development, technology transfer, intellectual property, manufacturing, human resources, and organizational learning” (Teece et al. 1997). A firm’s dynamic capabilities contribute to gain competitive advantage in increasingly demanding environments (Teece et al. 1997).

2.5.3 Dynamic Capabilities of a Firm

“Dynamic capabilities are the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al. 1997). “They reflect an organization’s ability to achieve new and innovative forms of competitive advantage, given path dependencies and market positions” (Leonard-Barton, 1992 cited in Teece et al. 1997).

The reason for having competitive advantage can be assigned to a valuable resource that allows the company to perform activities better or more cheaply than competitors (Ogrea et al. 2009). “Superior performance will therefore be based on developing a competitively distinct set of resources and deploying them in a well-conceived strategy” (Ogrea et al. 2009). “The dynamic capabilities perspective seeks to explain how firms achieve and sustain competitive advantage within ever changing environments. The critical aspects of dynamic capabilities are the ability of the firm to identify the changing market environment, to sense the need and the opportunity, and then to accomplish the necessary transformation in its routines which reconfigures resources and creates significant value” (Easterbery-Smith and Prieto 2008).

The competitive environment has an influence in the creation and development of dynamic capabilities (Eisenhardt and Martin, 2000 cited in Easterbery-Smith and Prieto 2008). Moreover, “certain characteristics of the general business environment (i.e. uncertainty, complexity, munificence) moderate the relationship between dynamic capabilities and competitive advantage” (Aragon-Correa and Sharma, 2003; Benner and Tushman, 2003; Marsh and Stock, 2003; Pavlou and El Sawy, 2004 cited in Easterbery-Smith and Prieto 2008).

2.5.4 Link between Dynamic Capabilities and Knowledge Management

Knowledge can describe the evolving nature of the dynamic capabilities (Eisenhardt and Martin, 2000 cited in Easterbery-Smith and Prieto 2008), and that “the ability to create, integrate, transfer and use knowledge on an ongoing basis underpins the firm’s capabilities and competitive advantage” (Teece, 1998 cited in Easterbery-Smith and Prieto 2008).

Organization learning and knowledge management are key sources of dynamic capabilities (Tsai and Jhang 2010). “The terms ‘dynamic capabilities’ and ‘knowledge management’ are commonly used in discussions of how best to manage organizations in dynamic and discontinuous environments” (Tsai and Jhang 2010).

Regarding the strategic management of dynamic capabilities, (Eisenhardt and Martin, 2000; Teece, Pisano and Shuen, 1997 cited in Easterbery-Smith and Prieto 2008) claim that it “seeks to explain why some organizations are more successful than others in building competitive advantage within dynamic markets”. “Knowledge management has been presented as a fundamental strategic initiative and the most important guarantor of sustainable competitive advantage for firms” (Grant, 1996 cited in Easterbery-Smith and Prieto 2008). “While the dynamic capabilities view emphasizes the renewal of resources by reconfiguring them into new capabilities and competences” (Teece, Pisano and Shuen, 1997 cited in Easterbery-Smith and Prieto 2008), “knowledge management research often focuses on providing solutions to managers to create, retain, transfer and use an enterprise’s explicit and tacit knowledge” (Cepeda and Vera, 2005 cited in Easterbery-Smith and Prieto 2008).

Dynamic Capabilities and Knowledge management overlap, because both “fields share the recognition that knowledge change and adaptation is directly related to the concept of learning” (i.e. Crossan, Lane and White, 1999; Eisenhardt and Martin, 2000; Zollo and Winter, 2002 cited in Easterbery-Smith and Prieto 2008). “Learning capabilities act as the source of dynamic capabilities, while operational capabilities are the visible outcome of dynamic capabilities. Together, the concepts of knowledge management and organizational learning have usually belonged to different fields of research. But since learning can be defined in terms of the processes of knowledge creation, retention, application etc” (Vera and Crossan, 2003 cited in Easterbery-Smith and Prieto 2008). “They fit together in such a way that knowledge management can be considered as ‘managed learning’ within organizations by providing solutions to these knowledge- associated processes” (Prieto, 2003; Vera and Crossan, 2003 cited in Easterbery-Smith and Prieto 2008). “Organizational learning thus represents an opportunity to unify the insights from both dynamic capabilities and knowledge management” (Easterbery-Smith and Prieto 2008).

Both fields also overlap, because “dynamic capabilities depend upon the evolution of knowledge through both exploration and exploitation” (Levinthal and March, 1993 cited in Easterbery-Smith and Prieto 2008). “Exploration activities are primarily aimed to introduce the variations that generate new

ideas and to select the most appropriate ones through, for example, alliances (Das, 2006 cited in Easterbery-Smith and Prieto 2008) and organizational networking” (Hendry and Brown, 2006 cited in Easterbery-Smith and Prieto 2008).

Zollo and Winter (2002), cited in Easterbery-Smith and Prieto (2008) “link dynamic capabilities to a ‘knowledge evolution cycle’ that involves both exploration and exploitation”, and Swan et al. (1999, 2000) cited in Easterbery-Smith and Prieto (2008) recognize that “the objective of knowledge management can be to enhance both knowledge exploitation and exploration”. “After two decades of research on the exploration–exploitation trade-off” (Adler, Goldoftas and Levine, 1999; He and Wong, 2004 cited in Easterbery-Smith and Prieto 2008), “scholars in organization theory have concluded that the degree of success of business organizations lies in their potential to conduct both exploration and exploitation activities simultaneously” (Levinthal and March, 1993; March, 1991; Oshri, Pan and Newell, 2006 cited in Easterbery-Smith and Prieto 2008). “Dynamic capabilities are manifest when a firm simultaneously explores and exploits its knowledge and competences. This combination is reflected in the concept of ambidexterity introduced by Gibson and Birkinshaw (2004) cited in Easterbery-Smith and Prieto (2008) which involves two essential dimensions – performance management and social support – that give rise to dynamic capabilities”.

Researchers such as Lawson and Samson (2001) and Verona and Ravasi (2003) cited in Easterbery-Smith and Prieto (2008) “identify personal skills and knowledge, physical technical systems, structural and managerial systems, and cultural values and norms as essential constituents for building dynamic capabilities”. “In the knowledge management literature there is also convergence around cultural, structural, human and technological factors as key elements of a successful knowledge management infrastructure which can support the generation, acquisition, retention, transfer and utilization of knowledge” (Chuang, 2004; Gold, Malhotra and Segars, 2001; Lee and Choi, 2003; Van den Brink, 2003 cited in Easterbery-Smith and Prieto 2008).

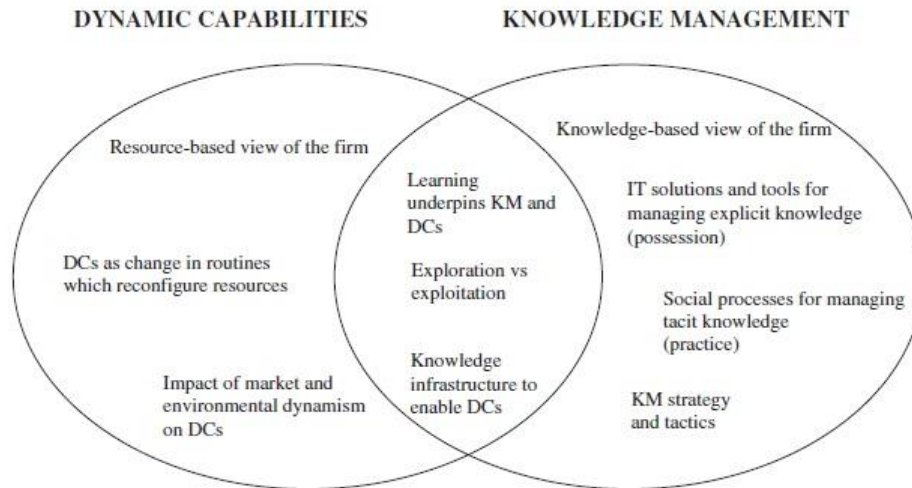


Figure 4: “Boundaries and overlaps of the dynamic capabilities and knowledge management fields” (Easterbery-Smith and Prieto 2008).

Winter (2003) cited in Easterbery-Smith and Prieto (2008) refers to this as the “operational (zero-order) capabilities; and mechanisms need to be in place to ensure that they can be appropriately reconfigured as business circumstances change”.

In figure 4, on the upper half, it is exemplified the part of dynamic capabilities as the (first-order) “capability to modify existing resources and operational routines over time. The need for reconfiguration and renewal of these resources and routines may emanate from changes in the organizational conditions and from changes in the environmental conditions” (Zahra, Sapienza and Davidsson, 2006 cited in Easterbery-Smith and Prieto 2008). Thus “dynamic capabilities are developed in response to a variety of conditions including market dynamism. In moderately dynamic environments”, as suggested by Eisenhardt and Martin (2000) cited in Easterbery-Smith and Prieto (2008), “dynamic capabilities take on a relatively stable, predictable and analytic form, and rely heavily on existing knowledge in enabling the reconfiguration of resources and routines. But in high-velocity markets this apparent stability breaks down, and consequently dynamic capabilities become ‘simple, experiential, unstable processes that rely on quickly created new knowledge and iterative execution to produce adaptive, but unpredictable outcomes” (Eisenhardt and Martin, 2000 cited in Easterbery-Smith and Prieto 2008).

Moreover, in the lower half of figure 4, it is “developed the role of knowledge management. Here we are suggesting that knowledge management may also be considered as a first-order capability (Gold, Malhotra and Segars, 2001 cited in Easterbery-Smith and Prieto 2008) which contributes to the reconfiguration of resources and operational routines, both because knowledge is a resource in its own right and because operational routines will be derived from the knowledge that resides within functional disciplines such as marketing, human resources and information systems”. According to Pan and Scarbrough (1999), Lee and Choi (2003) and Chuang (2004), cited in Easterbery-Smith and Prieto (2008) “knowledge management capabilities need to encompass an appropriate combination of social relationships, managerial practices and technical tools, thus developing and deploying the knowledge types which are embodied in practice with the knowledge that can be possessed”.

It is suggested that it is “mostly when knowledge management motivates and supports people and collective activities that dynamic capabilities can be triggered, and therefore social elements may be more significant than technical ones” (Easterbery-Smith and Prieto 2008). As stated by Robey, Boudreau and Rose (2000) cited in Easterbery-Smith and Prieto (2008): “Information technologies are subject to complex social processes as they are implemented and used in organizations; they are not plugged in and played without the involvement of numerous actors over significant periods of time”. “Therefore firms must create and renew social contexts which enable individuals to engage in both internal and external learning processes in the course of their day-to-day work. This task is difficult if we consider that not only are people the key enablers of creating and using knowledge for competitive advantage, but they may also be the major constraints” (Biloslavo and Zornada, 2004 cited in Easterbery-Smith and Prieto 2008).

In conclusion, knowledge management aligned with dynamic capabilities, has the capacity to improve a company’s performance, if supporting the company’s operational functioning (Easterbery- Smith and Prieto 2008).

2.6 Knowledge Management in Small-Medium Enterprises

“SMEs need to make operational, tactical and strategic decisions and without accurate information they will struggle to undertake this role” (Zanjani et al. 2008). “So, a SME that has survived for more than five years is most probably doing something right, including undertaking a viable approach to managing knowledge” (Jafari, Fathian, Akhavan & Hosnavi 2007 cited in Zanjani et al. 2008).

KM has two perspectives in SMEs: “‘Pull’ perspective, which identifies the potential benefits or improvements that are crucial for small businesses, include, for example, improved competency, efficiency, innovation, learning and knowledge sharing. And ‘push’ perspective, which deals with the external or environmental thrusts that push them to the forefront of KM, include amongst others, competitive pressure, globalization, movements of large companies toward knowledge based organizations” (K.Y.Wong & E.Aspinwall 2005, cited in Zanjani et al. 2008).

Knowledge management is also key for SMEs to gain and maintain competitive advantage (Zanjani et al. 2008).

2.6.1 Small-Medium Enterprises

In terms of the SMEs contributions to the national economies, they are estimated to be 80% of the global economic growth (Pavic, Koh, Simpson & Padmore 2007 cited in Zanjani et al. 2008). “SMEs may be distinguished from large companies, by some or all of the following features: flexibility and volatility, skill (or expertise) shortages, very limited market power, market behaviors mainly affected by partners or competitors” (Chen, Duan, Edwards and Lehane 2006 cited in Zanjani et al. 2008).

Still, “SMEs are a vital part of any national economy, due to several reasons: they contribute towards the employment growth and provide new job opportunities for the majority of the population; they are a source of innovation in new products, services, processes and work practices; they are specialist suppliers of parts, components and subassemblies for large companies; they can be fast and flexible, and close to their customers; they can perform an important import substitution role; and they can be a more human environment: on a human scale, small is beautiful” (Zanjani et al. 2008).

2.6.2 Knowledge Management in Small-Medium Enterprises

Due to the different size of structure, SMEs manage knowledge the same differently from larger organizations. SMEs have to “do more with less, and have to be creative in working around these limitations in order to manage knowledge” (Desouza & Awazu cited in Zanjani et al. 2008).

Like for large organizations, the success of SMEs can also be linked to how well they manage their knowledge. “SMEs, in particular, must pay close attention to knowledge management for several reasons. One is that SMEs compete on their know-how and hence have to use knowledge to their advantage, even more so than traditional resources. Moreover, by using knowledge directly, the owner of SMEs must also transfer knowledge to employees. Seldom, do SMEs have the capabilities to recruit the best minds in the business; hence they must settle for less qualified but motivated individuals. Finally, SMEs are judged by the external world, such as lending institutions, investors, suppliers, and customers, on their knowledge and knowledge-exploitation capabilities” (Zanjani et al. 2008).

Zanjani et al. (2008) “identified the lack of time and communication skills and rapid change in information technologies as the main KM challenges in SMEs. They defend that SMEs “need to develop their understanding of KM, as a key business driver rather than as a resource-intensive additional initiative.”

There are two different strategies: Codification and Personalization (Cerdan, Nicolas & Sanchez 2007 cited in Zanjani et al. 2008). “Codification strategy involves securing knowledge, then storing it in databases for others to access and reuse, and focuses on codifying knowledge using a ‘people-to-document’ approach” (Zanjani et al. 2008). “On the other hand, personalization strategy manages the knowledge produced by human interaction, by focusing on the dialogue between individuals. This knowledge is difficult to codify and store, because it is unable to replicate the human qualities used when resolving an issue” (Zanjani et al. 2008). “In order to manage knowledge effectively, firms’ must opt to prioritize strategies, that is, “use one strategy primarily and use the second strategy to support the first” (Zanjani et al. 2008).

Hansen, Nohria and Tierney (2007), cited in Zanjani et al. (2008) state that SMEs “need to start identifying what kind of organization they are and then what are their information needs, so that they can focus, either on personalization or codification strategy”.

“The Codification strategy is assumed to be successful for companies whose business strategy requires re-using existing knowledge and the Personalization strategy should be adopted when the business strategy focuses on generating new or customer specific solutions or product innovations” (Greiner, Hehmann & Kremer 2007 cited in Zanjani et al. 2008). They argue that “Codification strategy is more suitable for SMEs conducting tasks that are more routine in nature; while personalization strategy is more suitable for SMEs conducting tasks that are more innovative in nature” (Greiner, Hehmann & Kremer 2007 cited in Zanjani et al. 2008).

Knowledge Management encompasses two different approaches, individualization versus institutionalization aspects (Zanjani et al. 2008). “Individualization describes socialization tactics that are individual and informal, while institutionalization describes socialization tactics that are collective and formal in terms of the contexts in which organizations provide information to newcomers”. Furthermore, it is vital to understand that “knowledge can be more valuable when accessible, shared and combined with other knowledge in order to create even more powerful knowledge for the organization or the individual” (Boh, 2007 cited in Zanjani et al. 2008). It is suggested by (Zanjani et al. 2008) that “Individualization tactics are more suitable for small-sized SMEs, while institutionalization tactics are more suitable for medium-sized SMEs.”

“This dimension encloses both the differentiations between IT-based versus non IT-based aspects of KM approaches. The main IT-based tools are: “decision support technologies, groupware, and electronic knowledge bases” and the main non IT-based tools are: “spontaneous knowledge transfer initiatives, mentoring, teams and communities of practice” (Zanjani et al. 2008).

A SME must have a “global and consistent vision when managing its knowledge and selecting the KM tools to be implemented” (Cerdan, Nicolas & Sanchez 2007 cited in Zanjani et al. 2008). “The key to achieving harmony between KM and IT is to understand the very basic principle: there are things that computer and technology do well, and there are things that humans do well” (Mohamed, Stankosky and Murray 2006 cited in Zanjani et al. 2008). In Dougherty’s mind (1999), cited in Zanjani et al. (2008), “IT should be seen as a tool to assist the process of KM in organizations”. For others, like Duffy (2000) cited in Zanjani et al. 2008), “IT is, purely, strategically essential for global reach when organizations are geographically distributed. This is due to the fact that, it is increasingly difficult for them to know where their best knowledge is”.

Regarding the IT-based tools, those are applicable for SMEs that are spread geographically; as for SMEs that are geographically concentrated the applicable ones are the non IT-based tools (Zanjani et al. 2008).

“Many SMEs do not restrict their KM strategies to in-house resources and activities but also seek competitive advantage through inter-firm alliances involving knowledge sharing and through industry-based activities involving knowledge blocking. These research insights suggest limitations to the dominant RBV and its derivative the KBV” (Clarke and Turner 2003).

The level of research done into knowledge management practices in SMEs is still very small. “However, their structure suggests a strong need to customize models developed for large firms. SMEs tend to have limited resources” (Levy and Powell cited in Clarke and Turner 2003), “often do not generate explicit business strategies and tend to have an operational rather than strategic view of IS, which lead researchers to question their need for KM” (Spender 1996 cited in Clarke and Turner 2003).

The fact that SMEs have a less bureaucratic nature, makes them more easily knowledge generators, “because less formal strategies in SMEs facilitates the communication of knowledge, improves informal networks, increases speed of decision-making and level of innovation, improves the degree of employee commitment and receptiveness of novelty” (Egbu and Sturges cited in Clarke and Turner 2003).

“Emerging from the strategic management literature are two other prominent perspectives in addition to the RBV, industry structure and the relational views. Industry structure competitive advantage became the dominant view in the 1980s and refers to an organization’s competitive advantage through membership of an industry with favorable characteristics” (Clarke and Turner 2003). “Associated with the work of Porter (Porter, 1980 cited in Clarke and Turner 2003) characteristics may include relative bargaining power, barriers to entry, lowering costs and tying in suppliers and customers”. “Subsequently, and in parallel with the development of the RBV, a third view on sources of competitive advantage emerged—the relational-based view. This refers to idiosyncratic inter-firm linkages as a source of competitive advantage, i.e. where competitive advantage cannot be generated by either firm in isolation but only through collaboration. These collaborations involve substantial knowledge exchanges and the combination of complementary resources or capabilities. This enables firms to create unique products, services and technologies, and to lower transaction costs compared to their competitors” (Clarke and Turner 2003).

The next chapter will explain the process followed to answer the research question: “Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?”. It will try to establish a relationship between dynamic capabilities, resource-based view, knowledge-based view and knowledge management.

3. Analysis of the Portuguese Footwear Industry regarding the use of Knowledge Management

The goal of this chapter is to explain the methodology used to answer the research question and to find the answer to the two hypotheses presented previously in the introduction chapter. It is also aimed to verify, through the Porter's Five Forces Model and Value Chain, if the Portuguese Footwear Industry is competitive, to verify if there is a need to manage knowledge strategically, and to assess if knowledge management is important for competing in this industry. With this, supported by the literature gathered, it is possible to find evidence whether those footwear factories manage knowledge with the intention of gaining competitive advantages.

This chapter is structured by an overview of the methodology used, followed by an analysis of knowledge management in SMEs and a study of the impact knowledge management can have in companies' competitive advantage. Finally the analysis of knowledge management in the Portuguese footwear industry is done through proposing a framework, to allow us to identify if companies manage knowledge in a strategically.

3.1 Data Collection and Methodology

The methodology is characterized by a qualitative analysis, achieved in two distinct ways. First, with the literature review that supports the assumption that knowledge management can create and sustain competitive advantages.

Secondly, the Portuguese footwear industry, more particularly the footwear industry of São João da Madeira, the "footwear capital", is analyzed. With the literature review's findings regarding the strategic models, resource-based view, knowledge-based view and dynamic capabilities, a framework is proposed, to allow us to identify if companies manage knowledge in a strategic way.

In order to identify, in the framework, what type of strategic knowledge management a company uses, the interview's key questions are defined. The questions to understand what strategy is being used are suggested in the subsections 3.3.1.1, 3.3.2.1 and 3.3.3.1, after the analysis of each strategic model. The

questions chosen are all related to the companies' competitive advantage, strategy and knowledge management, allowing therefore assessing what strategic model they integrate. Then, interviews are personally conducted to six of the most historical and important factories in the region.

The interviews' purpose is to assess whether this six companies use, or not, knowledge management strategically and to perceive what benefits the companies have for managing their knowledge. By crossing each question of the interviews with the framework built, it is possible to conclude if the companies manage knowledge strategically, thus answering the research question "Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?".

3.2 Knowledge management is also applicable to Small-Medium Enterprises

To answer the research question "Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?", first, this study wants to show that knowledge management is applicable to Small-Medium Enterprises. Due to its dimension, Knowledge Management is done differently, as shown by the literature review, but is as important as for larger companies. In this section, the differences in managing knowledge in SMEs are studied, as well its importance for companies.

3.2.1 Knowledge Management in SMEs

The literature review suggests that good knowledge management practices are also essential in Small-Medium Enterprises (SMEs). As (Chan and Chee-Kwong 2008) points out, for SMEs, Knowledge is, even more, a strategic asset, inimitable by competition, and hence, bringer of competitive advantage. However, it is observed that knowledge management is done differently in SMEs, mainly, because, they frequently face lack of resources (most of them do not possess or even intend to possess Knowledge-related softwares). As a result, SMEs tend to manage knowledge much more tacitly.

Furthermore authors such as (Zanjani et al. 2008), have concluded that SMEs face a lot of other demanding challenges, either at an operational, strategic or tactical level. Consequently, in order for

these SMEs to survive, they must use accurate and precise information, which means, that it is imperative that they manage knowledge correctly. It is vital that they perceive knowledge management as a unique success factor in their respective business, rather than just another resource spending initiative (Zanjani et al. 2008).

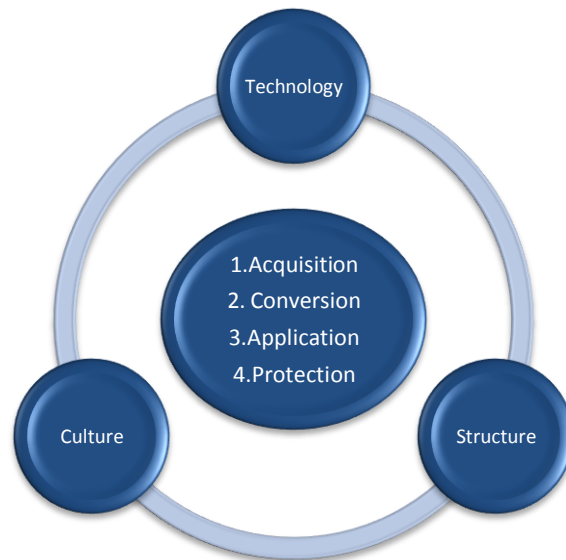


Figure 5: Knowledge Management in SMEs

Technology needs to be made available for SMEs to be able to manage knowledge more effectively (Chan and Chee-Kwong 2008). Again, as previously stated, SMEs tend to have much more financial constraints and cannot invest as heavily in KM as big corporations. Nevertheless, “a simple KM system, with access to the internet, email and database management” (Chan and Chee-Kwong 2008) suffices, as a 1st step in creating a cost efficient KM solution for SMEs.

Furthermore, a KM oriented **structure** also needs to be fomented, with the purpose to facilitate knowledge sharing amongst employees, through incentive schemes or reward systems. The management can also “provide a transparent report on the KM progress, and publicize the progress and development of KM activities tailored to all employees to increase interest in getting involved in the designated KM tasks” (Chan and Chee-Kwong 2008).

Finally, SMEs must also have an imbedded **culture**, of openness to new ideas, opinions and innovations (Chan and Chee-Kwong 2008).

(Chan and Chee-Kwong, 2008) defend that these are the three general principles of KM in SMEs. More concretely, SMEs must take 4 additional steps to be able to manage knowledge solidly and effectively:

1. Acquisition: Typically, there is the need to establish plans to ensure a more constant and efficient knowledge capture, (this can be internally or from suppliers / business partners). In addition, “management and employees may jointly identify the working definitions of knowledge, skills, and competence that are critical to differentiate their own business from that of competitors”(Chan and Chee-Kwong, 2008). An universal understanding of what Knowledge means is essential for it to be managed efficiently.
2. Conversion: It is not sufficient to possess knowledge about something. Each individual must be able to convert what he/she knows into what other people can assimilate, and begin to use it. Management needs to explain to employees that “knowledge is not confined to a certain group of people or to experienced staff” (Chan and Chee-Kwong, 2008). Intranets are a good example of ways in which employees can share experiences, or become aware of new findings from competitors’ practices etc.
3. Application: SMEs must encourage, through promotions/public recognition, employees to actually apply new acquired knowledge in their daily activities. By giving them opportunities, and actually allow knowledge experimentation from more conceptual ideas to practical actions, people within the company will become much more motivated to become more inventive and express their ideas and contribute to a much more knowledge intensive company.
4. Protection: Protecting the acquired knowledge is essential in SMEs. As it was already pointed out, Knowledge constitutes a key success factor, enabler of competitive advantage for SMEs. Therefore, systems that can capture/prevent the loss of knowledge due to staff departure, for instance, must be created. Furthermore, it is essential that unique knowledge remains within the SMEs, not to be copied by competition. As a result, management should establish rewards systems to retain knowledge within the organization in order to explore it better (Chan and Chee-Kwong, 2008).

In conclusion, knowledge management is as important to SMEs as it is to larger corporations. Still, not to forget that the dimensions of a smaller company, makes the process of managing knowledge different, because SMEs must do more with less, and “have to be creative in working around these limitations in order to manage knowledge” (Desouza & Awazu cited in Zanjani et al. 2008). Nonetheless, the “non-

bureaucratic nature of SMEs tends to make them knowledge generators, because less formal strategies in SMEs facilitates the communication of knowledge, improves informal networks, increases speed of decision-making and level of innovation, improves the degree of employee commitment and receptiveness of novelty” (Egbu and Sturges cited in Clarke and Turner 2003).

3.2.2 Knowledge Management in the SMEs of the Portuguese Footwear Industry.

Portugal is seen, worldwide, as an important player in the footwear industry, occupying, for example, the fifth position, in global terms, as a leather shoe exporter (Moura e Sá and Abrunhosa 2007). The industry is characterized by being a mature and traditional one, constituted, mainly, by small and medium enterprises, which do not possess the necessary financial resources to invest heavily on R&D in order to achieve disruptive innovations and consequent product differentiation (Moura e Sá and Abrunhosa 2007). Furthermore, the competitive landscape in this industry is fierce, with companies struggling to achieve competitive advantage (Moura e Sá and Abrunhosa 2007).

Consequently, it seems logical to assume that Knowledge is effectively managed in the Portuguese Footwear industry in the same way that it is done in regular Small and Medium enterprises. In order to conclude if Knowledge Management is applied strategically to the Portuguese footwear industry, in a way that helps companies become more competitive, interviews were conducted to the managers of six Footwear Manufacturing companies from the Portuguese “Footwear Capital” S. João da Madeira.

3.3 The Potential Impact of Knowledge Management in Companies’ Competitive Advantage

In this section, the impact knowledge management has in companies is reviewed, more specifically in terms of competitive advantage. This analysis begins with the three strategic models mentioned throughout this thesis, dynamic capabilities, resource-based view and knowledge-based view, since these models allow identifying if a company is managing knowledge strategically. The conclusions

achieved with this section will support the creation of a framework, to withdraw the interview's questions and assess if the interviewed companies are managing knowledge in a strategic way.

3.3.1 Resource-Based View and Knowledge Management

In terms of the resource-based view, its core principles are that “resources and capabilities, which are simultaneously valuable, rare, imperfectly imitable and non-substitutable, are the main source of above-normal rents and competitive advantage” (Barney, 1991; Wernerfelt, 1984 cited in Easterbery-Smith and Prieto 2008).

When firms have the concern of producing their products adjusted to target “customers’ needs and wants and that market these products faster and more efficiently than their competitors are in a better position to obtain higher performances and create sustainable competitive advantages” (Alegre et al. 2006, Nonaka & Takeuchi, 1995 and Prahalad & Hamel, 1990 cited in Cabrales, Luno & Cabrera 2009). And, the resource-based view focus on “how knowledge resources can develop organizational capabilities and enhance organizational performance” (Lian, Chen and Lin 2009).

“In order to be effective and efficient, strategic management must develop a comprehensive, dynamic and innovative resource-based model—unique for each firm—able to identify the specific intangible assets that may become strategic, their determinants, the interconnections between them, and their integration into successful competitive strategies” (Ogrea et al. 2009).

Barney and Wright (1998), cited in Cabrales, Luno & Cabrera (2009), defended that “any resource creates value through either decreasing product/service costs or differentiation product/service in a way that allows the firm to charge a premium price; thus, valuable knowledge will yield high returns in markets, increasing the ratio of benefits to customers relative to their associated costs”.

The SECI model (Nonaka and Takeuchi)

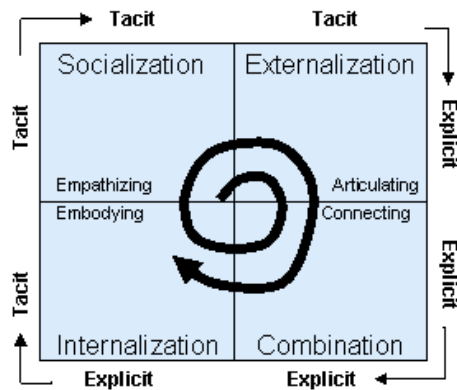


Figure 6: The SECI model (Nonaka and Takeuchi 1995)

In a company with a strategy of knowledge management, which main source of competitive advantage is to develop innovation through knowledge resources that are valuable and difficult to copy. And, with the usage of the SECI model, the company can ensure that the knowledge being created and transferred throughout the organization is focused on the key characteristics that lead to sustaining competitive advantage: rarity, inimitability and substitutability.

More specifically, in the Socialization phase, the unique and valuable “know-how” and intuitions an individual has are shared with co-workers, therefore transferring the tacit knowledge. Regarding the Externalization phase, the tacit knowledge is transformed into explicit, because co-workers consider their own ideas in relation to inimitable knowledge to achieve innovation. During the Combination phase, that explicit knowledge of inimitable and valuable knowledge of skills and resources to achieve innovation becomes even more explicit, through documenting it. Lastly, there is the Internalization phase, where the explicit knowledge is converted into tacit, by the worker reading that knowledge and developing his own opinions and feelings about it.

So, in conclusion, by following the SECI model the exchange and creation of knowledge is facilitated, aligning knowledge with the company’s culture and strategic goals. By following this model of knowledge creation, the company is constantly producing new knowledge, accessible for all the workers, therefore making new discoveries, increasing their “know how” and expertise regarding the company’s resources and spreading it throughout the entire organization, unifying the company and its strategy based on a resource-based view strategy. That knowledge created is what leads to innovation and can consequently lead to the achievement of superior competitive advantage.

3.3.1.1 Is a company following a Resource-Based View strategy?

In order to assess if a company is following a strategy centered in the Resource-Based View strategic model, data will be collected through a set of questions, to be posed to the managers of the companies. We will assume their answers represent what the company actually does, and hence the company's strategy will be understood, to verify if it is explained by the resource-based view. A company's strategy must be deeply understood, to see if it is centered in the central competences, with a vision of the market, but without an explicit concern of preparing the adaptation to the market's evolution, which may require different competences.

- What strategy do you follow?
- How do you obtain competitive advantage?
- What do you do differently from your competitors?

Being these questions, open questions, they will enable to capture what the managers says or doesn't say, enabling to interpret how is their strategic vision, by crossing with the model resource-based-view. Also, what leads them to have competitive advantage and how they sustain it is of great importance, to realize if they have a resource or a bundle of resources making them have competitive advantage over their competitors. This can too be confirmed by this thesis' framework, which by crossing the interviews with the framework allows assessing if knowledge management is done strategically.

- Do you do knowledge management? How?

Finally, how the company manages its knowledge is very important to understand in what strategic model best explains their knowledge management, in this case, if the knowledge management is focused in the specific resource, and in maintaining and developing it.

3.3.2 Knowledge-Based View and Knowledge Management

Currently, "the knowledge and capabilities-based views in strategy have largely extended resource-based reasoning by suggesting that knowledge is the primary resource underlying new value creation,

heterogeneity, and competitive advantage” (Barney, 1991; Grant, 1996; Kogut & Zander, 1992 cited in Felin and Hesterly 2007).

Since knowledge is embed in the individual’s mind, it is one competitive advantage that is complicated to copy. “The knowledge-based view of the firm holds that the firm's capability to create and utilize knowledge is the most important source of a firm's sustainable competitive advantage” (Hsien Liao and Chein hu, 2007 cited in Madhoushi and Sadati 2010).

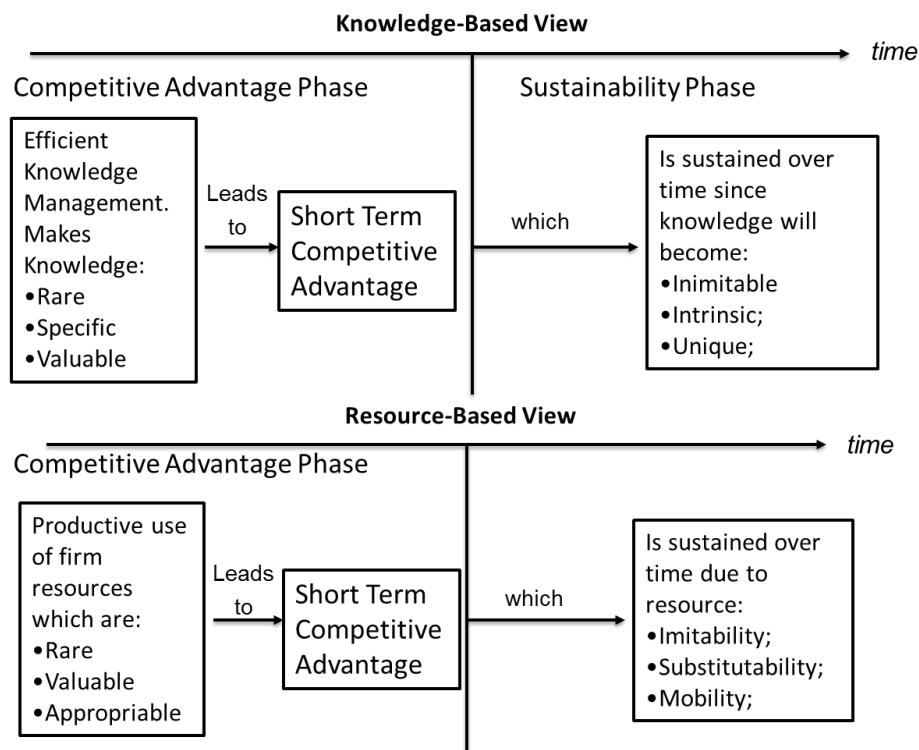


Figure 7: KBV vs RBV

It was possible to confirm, with the literature review, that “the RBV proposes that an organization’s competitive advantage is derived from those valuable and unique resources that are costly for competitors to imitate. And in the case of the KBV, the resources are knowledge-related elements” (Amburgey and Al-Laham cited in Clarke and Turner 2003). Those resources, such as Knowledge, can be rare, specific and valuable, and hence create competitive advantage in the short term. In fact, when properly managed, knowledge can, in the long-run become inimitable, intrinsic to the company, becoming, in essence, a unique resource, which cannot be copied or even perceived by the competition.

The company will create a competitive advantage, since, basically, it will own a resource which the competition will never have.

“The idea of knowledge management has become important due to the increased awareness of the importance of knowledge for the organization’s prosperity and survival, and due to the increased availability of IT to store, distribute and generally ‘manage’ knowledge” (Grant, 1996; Kogut and Zander, 1992 cited in Easterbery-Smith and Prieto 2008). Meaning that, “knowledge management approaches have developed traditionally from the knowledge-based view, a derivative of the resource-based view” (Clarke and Turner 2003).

For a company which strategy is knowledge management, and knowledge is the one and only source of competitive advantage, the SECI model can be used as the model to keep generating and transferring knowledge. The SECI model helps creating a knowledge-sharing culture, increasing therefore the amount of knowledge a company owns. The SECI model is able to do so through the 4 phases of knowledge creation.

The SECI model (Nonaka and Takeuchi)

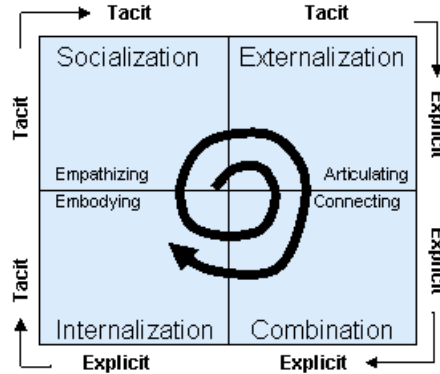


Figure 8: The SECI model (Nonaka and Takeuchi 1995)

In the Socialization phase, the unique and valuable “know-how”, hunches and insights that an individual has are shared with his co-workers, originating the transfer of his tacit knowledge. Concerning the Externalization phase, that tacit knowledge is converted into explicit, because the co-workers interact, by dialogue, and share their own ideas in relation to valuable and difficult to copy knowledge, to achieve competitive advantage. In the Combination phase, that explicit knowledge becomes even more explicit, through documenting it in databases. Finally, in the Internalization phase, the explicit knowledge is

converted into tacit, by the worker experiencing and training that knowledge, leading to the own development of opinions and feelings, creating therefore his tacit knowledge.

In conclusion, knowledge management is extremely important for a company, because in order for a company to achieve competitive advantage, it has to have powerful and difficult to imitate knowledge. Companies are dependent on knowledge. And, the SECI model can help a company to be constantly developing new knowledge that helps the company become unique and different from its competitors, which can lead to the creation of competitive advantage based in the knowledge based view strategy.

3.3.2.1 Is a company following a Knowledge-Based View strategy?

To understand if a company is following a strategy explained by the Knowledge-Based View strategic model, data will be collected through a set of questions, to be posed to the managers of the companies. We will assume that their answers will represent what the company actually does, and hence the company's strategy will be understood, to verify if it is explained by the knowledge-based view. To confirm this, a set of questions must be made:

- What strategy do you follow?
- How do you obtain and support your competitive advantage?
- What do you do differently from your competitors?

The manager's answers will be studied, and crossed with the framework, to see if the company is explained from a strategic model focused on knowledge. If so, it can be deduced that they possess competitive advantage over competition, since they follow a strategy based on a company's capability to create and apply knowledge as the most important source. What leads them to have competitive advantage and how they sustain it is extremely important, to assess if knowledge is the most important source of competitive advantage, by being difficult and time consuming to imitate. Also, it is needed to understand if that knowledge is being shared and applied to have and maintain that competitive advantage, by questioning how they manage their knowledge.

- Do you do knowledge management? How?

This can also be confirmed by this thesis' framework, since by crossing the interviews with the framework allow assessing if knowledge management is done strategically.

3.3.3 Dynamic Capabilities and Knowledge Management

Companies which have succeeded in our world's competitive business environment have been those which "demonstrate timely responsiveness and rapid and flexible product innovation, coupled with the management capability to effectively coordinate and redeploy internal and external competences" (Teece et al.1997). "This ability, to achieve new forms of competitive advantage, has been labeled as dynamic capabilities" (Teece et al.1997).

As Teece, et al. cited in Ogreaan et al. (2009) put it, "the term dynamic refers to the shifting character of the environment: Certain strategic responses are required when time-to-market and timing is critical, the pace of innovation is accelerating and the nature of future competition and markets is difficult to determine. The term capabilities emphasize the key role of strategic management in appropriately adapting, integrating, and re-configuring internal and external organizational skills, resources and functional competencies toward changing environment".

"The Dynamic capabilities approach emphasizes the development of management capabilities, and difficult to-imitate combinations of organizational; functional and technological skills, it integrates and draws upon research in such areas as the management of R&D, product and process development, technology transfer, intellectual property, manufacturing, human resources, and organizational learning" (Teece et al. 1997). A firm's dynamic capabilities allow having competitive advantage in progressively more challenging environments.

"The terms 'dynamic capabilities' and 'knowledge management' are commonly used in discussions of how best to manage organizations in dynamic and discontinuous environments" (Levinthal and March, 1993 cited in Easterbery-Smith and Prieto 2008). "Both fields also overlap, because dynamic capabilities depend upon the evolution of knowledge through both exploration and exploitation" (Levinthal and March, 1993 cited in Easterbery-Smith and Prieto 2008). Moreover, researchers recognize that "the ability to create, integrate, transfer and use knowledge on an ongoing basis underpins the firm's capabilities and competitive advantage" (Teece, 1998 cited in Easterbery-Smith and Prieto 2008).

Furthermore, "knowledge management and dynamic capabilities lead to a better performance when they support the operational functioning of the firm. It is therefore argued that knowledge management

enabled dynamic capabilities and are antecedents of specific operational/ functional competences which in turn have a significant effect on business performance” (Easterbery- Smith and Prieto 2008).

By following the SECI model, a company can ensure that knowledge, both tacit and explicit, is being created and spread properly throughout the corporation, align with the company’s strategy, and adding value to the company’s knowledge. It consists of four dynamic and spiral key processes through which tacit and explicit knowledge are shared within individuals and groups of the organization. Those processes are socialization, externalization, combination and internalization. With socialization, tacit knowledge is shared with others by way of advising. Externalization is the procedure of turning tacit knowledge into explicit knowledge, for example, by writing. Combination involves combining different types of explicit knowledge, by exchanging knowledge via documents, telephone and meetings. Internalization converts explicit knowledge into tacit knowledge (Nonaka and Takeuchi 1995).

The SECI model (Nonaka and Takeuchi)

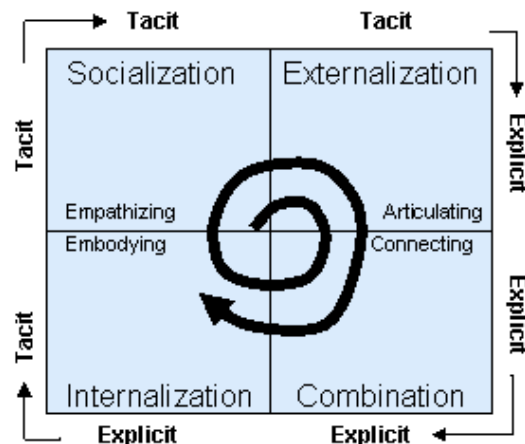


Figure 9: The SECI model (Nonaka and Takeuchi 1995)

In a company where capabilities have a shifting dynamic, requiring timely responsiveness and creating the need for a constant pursuit of new forms to achieve competitive advantage, and knowledge management is used as a strategic solution, the SECI model can be applied. Due to the fact that, with the SECI model, a company by following the model’s four phases, can reassure that the creation of knowledge, both tacit and explicit, is keeping up with the changes the company faces throughout the time, leading to the constant achievement of competitive advantage. The SECI model also allows the company to ensure that their knowledge is being spread efficiently for the entire corporation. The

knowledge creation process has 4 phases, in which the knowledge moves from being tacit to explicit and vice-versa, and from being among groups or individuals (Nonaka and Takeuchi 1995).

In the Socialization phase, the “know how” and insights embedded in an individual (tacit knowledge) regarding the knowledge of the company’s market and economy, or even about the different characteristics of the organization’s management capabilities, is shared with other colleagues. In the Externalization phase, that tacit knowledge is converted into explicit, through the interaction of co-workers in the organization that reflect and analyze their own ideas about the necessary knowledge to achieve innovation. During the Combination phase, that explicit knowledge of markets, capabilities, environment, skills, becomes even more explicit, through documentation, which can be uploaded in databases or groupware tools. Finally, there is the Internalization phase, where explicit knowledge is converted into tacit, by the worker experiencing it generating his own opinions and feelings.

With that generation of new knowledge, or by passing the existing, a company is able to measure up to the alterations in the environment, and to guarantee that the entire organization is aligned with their goals and strategy, and that it has the necessary knowledge to be innovative. So, knowledge management, supported by de SECI model can create and sustain competitive advantage, by facilitating and promoting the creation and exchange of knowledge necessary to be innovative.

3.3.3.1 Is a company following a Dynamic Capabilities strategy?

In order to assess if a company is following a strategy explained by the Dynamic Capabilities strategic model, data will be collected through a set of questions, to be posed to the managers of the companies. We will assume that their answers represent what the company actually does, and hence the company’s strategy will be understood. To verify if a company’ strategy is explained by the dynamic changes of its capabilities, the following questions should be asked:

- What strategy do you follow?
- How do you obtain and support your competitive advantage?
- What do you do differently from your competitors?

A company has competitive advantage by following a dynamic capabilities strategy, when they demonstrate the capacity to quickly innovate, answering timely the market's demands. By crossing the interviews with the framework, will be possible to see if this strategic model is the one that best explains the companies' strategy. Finally, how the company manages its knowledge is very important to understand if the ability to create, transfer and apply knowledge underpins a company's competitive advantage.

- Do you use knowledge management tools? How?

This too can be confirmed by this thesis' framework, which by crossing the interviews with the framework allows assessing if knowledge management is done strategically.

3.3.4 Knowledge Management can create and sustain competitive advantage – analysis by the resource-based view, knowledge-based view and dynamic capabilities frameworks

As mentioned throughout this dissertation, analyzed by strategic models dynamic capabilities, resource-based view and knowledge-based view, and supported by the SECI model, knowledge management improves companies' performance, and can be a source of competitive advantage, which allows companies to keep improving and innovating, and consequently differentiate themselves from competitor.

Competitive advantage is recognized as a "key requirement for corporate success in this competitive environment" (Porter, 1985). A firm has competitive advantage when "sustains profits that exceed the average of its industry. The goal of business strategy is to achieve a sustainable competitive advantage" (Porter, 1985). In order to "develop and exploit a competitive advantage, a firm must possess capabilities that can be used to create valuable, rare and imperfect imitable resources" (R. Perez, de Pablos, 2003 cited in Madhoushi and Sadati 2010). "A sustainable competitive advantage creates some barriers that make imitation difficult. Without a sustainable competitive advantage, above average performance is usually a sign of harvesting" (Geeta, 2010).

(Grant 1996 and Nonaka et al. 2001, cited in Fard and Selseleh 2010), claim that knowledge is the main source of competitive advantage. In fact, nowadays it is widely recognized that knowledge is an essential strategic resource for a firm to retain sustainable competitive advantage” (Choi et al., 2008 cited in Madhoushi and Sadati 2010). “So, the basis for competitive advantage is the ability to create knowledge and move it from one part of the organization to another. The creation of knowledge is a dynamic and continuous process involving interactions at various organizational levels. Organizations must learn from their environment how to survive and produce competitive condition that shapes the character of success. Learning is the only sustainable source of advantage” (Geeta 2010).

That said, it is possible to conclude that knowledge management leads to knowledge creation, which allows a company to continuously innovate, likely giving it competitive advantage (Geeta 2010).



Figure 10: Knowledge management can create competitive advantage

“Presently, half of the world top 500 enterprises have established their KM system and carried out the knowledge management method which brought them remarkable achievement” (Wenhong and Jianhua 2009). “Some famous enterprises such as Microsoft, IBM and Philips, have even created a position named Chief Knowledge Officer (CKO), which was separately set up to engage in the management of the enterprise’s knowledge” (Wenhong and Jianhua 2009). It is therefore suggested, since it is used in half of the world 500 enterprises, that knowledge management is truly recognized as fundamental for a company’s success.

When knowledge management is used strategically, it can be detected by the strategic models, resource-based view, knowledge-based view and dynamic capabilities, depending on the strategy the firm adopts, since these three strategic models differ from each other. One of mentioned strategic models can be closer to a company’ strategy. The idea of “dynamic capabilities emerge as an extension of the resource-based view of the firm, while knowledge management is more consistent with knowledge-based theories of the firm” (Easterbery-Smith and Prieto 2008). “Although the last builds upon and extends the former, the resource based view broadly focuses on firms’ resources, whether

tangible or intangible, property-based or knowledge-based. The premise of most dynamic capabilities research is that organizations must use and renew their tangible and intangible resources and capabilities to sustain competitive advantage in rapidly changing environments. Conversely, the knowledge-based view focuses mainly on the stock of knowledge resources in the firm, on understanding what knowledge is, on defining knowledge typologies, and on how best it can be managed” (Easterbery-Smith and Prieto 2008).

Therefore, knowledge management is recognized as a “strategic competence through which organizations can address their need for supporting innovation, improving business performance and sustaining their long-term competitive advantage” (Alberghini, Cricelli and Grimaldi 2009).

So, with the analysis of the gathered literature, it is possible to conclude that knowledge management can create and sustain competitive advantage, as a vehicle to enable innovation. Organizations, which have a structure with the appropriate culture and leadership to help in the creation of knowledge, which use the SECI model and that keep innovating, are supposed to have competitive advantage over competitors. Also, with unique and dynamic capabilities and resources, such as knowledge, that are not easily copied by competition or transferable, helps companies to become rare in what they do, therefore create more value. And, when businesses manage “to efficiently capture the resources and knowledge embedded in their organizations and deploy it into their operations, productions and services will have an edge over their competitors” (K.Y.Wong & E. Aspinwall 2005, cited in Zanjani et al. 2008).

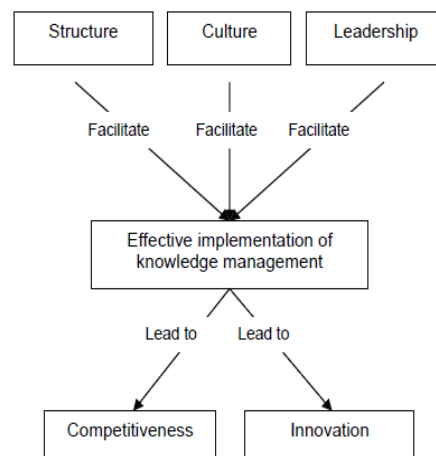


Figure 11: Effective implementation of knowledge (Madhoushi and Sadati 2010)

3.4 Analysis of Knowledge Management in the Portuguese Footwear Industry

With the analysis of the literature review, using the strategic frameworks, dynamic capabilities, resource-based view, knowledge-based view and the SECI Model to analyze knowledge management, it is possible to put forward that knowledge can be used to create and sustain a competitive advantage in a company, regardless of its dimension or area of expertise.

In this section, the Porter's Five Forces Model and Value Chain are applied to the Portuguese Footwear Industry, since the former allows assessing if the industry is competitive, and the latter to verify if knowledge management can impact the entire chain of processes. Finally, a more in depth analysis of knowledge management in the Portuguese Footwear Industry is done, by examining the interviews through a model, in order to understand if the companies manage knowledge in a strategic way.

3.4.1 The Porter's Five Forces Model of the Portuguese Footwear Industry

"The sources of competitive advantages in the footwear industry have changed over the last 40 years. If, in the 1970s and 1980s, the industry grew based on the low cost of the work and on economies of scale based on large volume, in the 1990s this was not possible anymore. Emergent producers could produce the same with lower costs. Therefore, knowing the market and the needs of the final customer – until then everything was done through agents – became key to remain in the market. The emphasis started to shift to design and commercialization. Thus, quality – in its broad sense – has become one of the 'qualifying criteria' for the Portuguese footwear industry, as happened in many other cases (Prajogo & Sohal, 2001), and flexibility, responsiveness and particularly innovation took over as 'winning order criteria'" (Moura e Sá and Abrunhosa 2007).

With the analysis of the Porter's Five Forces model (Michael E. Porter in 1979) a framework that allows the analysis of both the industry and the business strategy, it is possible to conclude that the attractiveness of the footwear industry is medium.

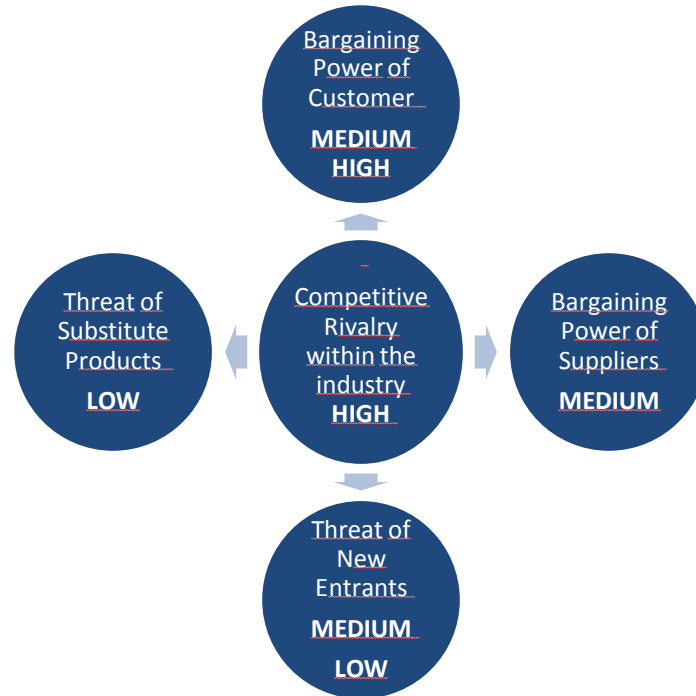


Figure 12: Porter Five Forces Model of the Portuguese Footwear Industry

Regarding the bargaining power of customers, it is medium-high, because the consumer is becoming more informed about the quality/price ratio of footwear, and therefore more demanding. Buyers are sensitive to the price changes, and are always looking for sales and special promotions, that firms do constantly to be more competitive. Also, there are several alternative brands for buyer's to choose, with zero switching costs. So, companies need to have strategies to remain competitive in the footwear market.

The bargaining power of suppliers is medium, because although these companies depend on them to produce their product (raw material, labor) it's in their best interest to sell them their products. There are several suppliers in the market, so they have to be competitive.

The threat of new entrants is medium-low. The know-how, the level of specialization required in producing footwear and investment in high quality materials, allows footwear producing companies to practice high prices and create barriers to enter the industry. As said, the footwear industry requires know-how, due to the fact that several parts of the process of building a shoe are handmade. The firms of the footwear industry are usually family-owned for several generations, making it harder for new comers to establish connections with distribution channels, suppliers and to get specialized manpower.

It also requires a big investment in high quality raw materials, specialized labor, machinery and distribution.

The threat of substitute products is low, since a person cannot substitute footwear.

Finally, in terms of competitive rivalry, it is high, since there are several competitors in this mature industry, not only Portuguese, but also international, creating the need for companies to keep innovating, and sustaining competitive advantage. In order for companies to do so, they need to develop strategies, and continuously adjust them to the changes in the industry.

In conclusion, this is a competitive industry, with demanding buyers, several competitors worldwide, a big range of suppliers and a constant need of innovation and superior quality. So, there is a need for companies to be strategic, if they want to sustain profits and remain in the business. As a result, and due to the fact that this is an increasingly non-static and dynamic industry, strategic tools must be available to help companies to remain competitive. Bearing this in mind, it is interesting to assess this thesis research question: “Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?”, to conclude if the managers from such competitive industry are using Knowledge Management strategically to gain competitive advantage.

3.4.2 The Value Chain of Portuguese Footwear Industry

Porter defined a company's Value Chain as “the distinct technological and economic activities a company performs do run the business” (Porter 1985). It is a large stream of connected activities, which, when properly connected, outweigh their costs, and hence, create profits. These activities, which can be seen as support or primary activities are all interconnected, and, each company needs to define which ones bring the most value to their product/service in order to become more efficient, and create economic or social value (Porter 1985).

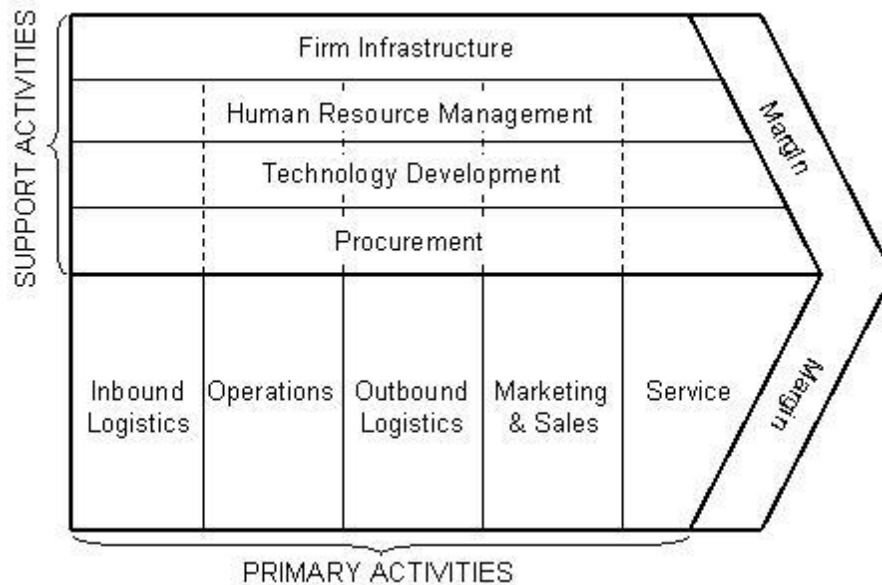


Figure 13: Porter's Value Chain

The Value Chain of a Company operating in the Footwear Industry needs to be hugely dynamic, due to the fact that it is a competitive industry, as shown by the Porter's Five Forces Model. As Porter points out, all the activities of the value chain are connected by linkages, and so, there is a need to have efficient and accurate information flowing from one to another. Furthermore, the footwear is entirely dependent on fashion trends, and, what can be considered as a highly fashionable today may not be tomorrow. Consequently, all operations, from the purchase of the raw materials to produce the shoe, (Inbound Logistics) to the communication and presentation of the same to the public (Marketing and Sales), must be, again, increasingly dynamic. Adaptation capability is one of the key success factors within this industry, since it is an industry related to fashion, with constant changes in the market trends and in the customer's wants and needs.

Having a well-established system to better manage information and knowledge within the company will positively impact every primary value chain activity. Beginning with the purchase of specific materials to manufacture the new season's collection, passing by the assembly/manufacturing of the product itself, which requires precise and exact knowledge, to the efficient distribution of the same (in the right batch quantity), and, finally, to the sales force/marketing and service, all of them will benefit from having an efficient knowledge sharing system/culture imbedded in the company.

3.4.3 Knowledge Management in the Portuguese Footwear Industry

The goal of this section is to understand if knowledge is managed strategically in the Portuguese Footwear Industry.

If knowledge management is used strategically, it can be detected by a model of strategic management, like the resource-based view, knowledge-based view and dynamic capabilities, depending on the strategy the firm adopts, since these three strategic models differ from each other. One of these models can be closer to a company' strategy, enabling to use the models as an approach to analyze thoroughly what type of strategy a company follows.

Based on the literature review and the discussion in the sections 3.3.1, 3.3.2 and 3.3.3, a framework is proposed, to allow identifying if companies manage knowledge in a strategic way. This framework consists on the key characteristics of the three strategic models: Resource-Based View, Knowledge-Based View and Dynamic Capabilities, which can be applied to assess if knowledge is being managed strategically.

Regarding the two first strategic models in the framework, the literature review puts forward that, "the resource-based view proposes that an organization's competitive advantage is derived from those valuable and unique resources that are costly for competitors to imitate. And in the case of the knowledge-based view, the resources are knowledge-related elements" (Amburgey and Al-Laham cited in Clarke and Turner 2003). "Knowledge management approaches have developed traditionally from the knowledge-based view, a derivative of the resource-based view" (Clarke and Turner 2003).

So, both the KBV and RBV approaches emphasize the use of the firms' resources and knowledge to achieve competitive advantage.

On the other hand, the Dynamic capabilities approach "emphasizes the development of management capabilities, and difficult to-imitate combinations of organizational; functional and technological skills, it integrates and draws upon research in such areas as the management of R&D, product and process development, technology transfer, intellectual property, manufacturing, human resources, and organizational learning" (Teece et al. 1997). "The terms 'dynamic capabilities' and 'knowledge management' are commonly used in discussions of how best to manage organizations in dynamic and discontinuous environments" (Levinthal and March, 1993 cited in Easterbery-Smith and Prieto 2008).

Summing up, as (Easterbery-Smith and Prieto 2008) explained, #the idea of dynamic capabilities emerges as an extension of the resource-based view of the firm, while knowledge management is more consistent with knowledge-based theories of the firm. Although the last builds upon and extends the former, the resource based view broadly focuses on firms’ resources, whether tangible or intangible, property-based or knowledge-based. The premise of most dynamic capabilities research is that organizations must use and renew their tangible and intangible resources and capabilities to sustain competitive advantage in rapidly changing environments. Conversely, the knowledge-based view focuses mainly on the stock of knowledge resources in the firm, on understanding what knowledge is, on defining knowledge typologies, and on how best it can be managed”.

By systematizing these concepts, the framework on figure 14 is proposed:

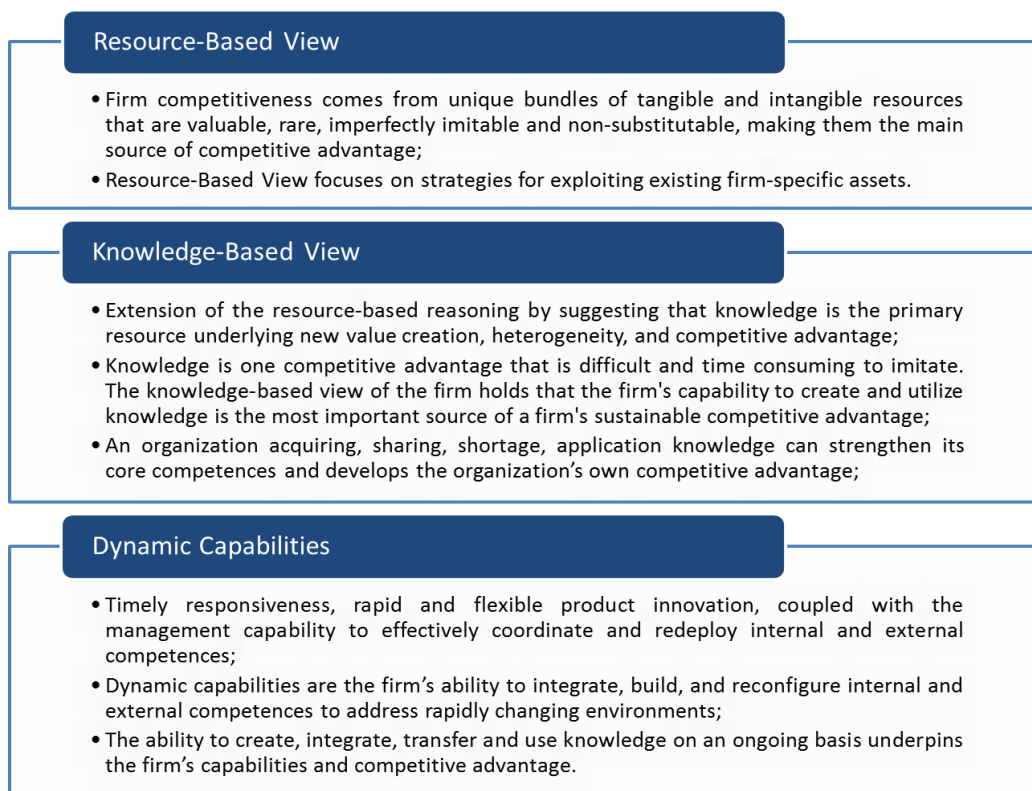


Figure 14: Strategic Knowledge Management Framework

“When businesses are managed to efficiently capture the resources and knowledge embedded in their organizations and deploy it into their operations, products and services will have an edge over their competitors” (K.Y.Wong & E. Aspinwall 2005, cited in Zanjani et al. 2008). Thus, the importance of

answering the research question, “Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?”.

In order to answer the research question, and identify, with the proposed framework (figure 14), if companies manage knowledge strategically, the interview’s key questions are defined. The questions to understand what strategy is being used are suggested in the subsections 3.3.1.1, 3.3.2.1 and 3.3.3.1, after the analysis of each strategic model. A company’ strategy must be understood, to see in which model best explains it. Also, what the managers think that leads the competitiveness is of great importance, i.e., to realize if their strategy is based on a resource or a bundle of dynamic resources, or knowledge resources, making them have competitive advantage over their competitors. Finally, how the company manages its knowledge is very important to understand by what strategic framework it is best explained. We will assume that their answers represent what the company actually does, and hence the company’s strategy will be understood. Seven open questions were chosen for the interviews:

1. Please give a brief introduction of your Company.
2. What is your Strategy?
3. What do you do differently from your competitors?
4. What is your Competitive Advantage?
5. How do you support your Competitive Advantage?
6. Do you do Knowledge Management? How?
7. What benefits do you obtain from Knowledge Management?

- **Question 1:** The aim of question 1 was to get to know more about the companies and to introduce the company to the interviews’ readers.
- **Question 2:** With question 2 it’s aimed to specifically understand what type of strategy the companies’ managers follow that way, enabling to assess which of the strategic models explains better their strategy.
- **Question 3:** Companies are recognized to have competitive advantage, when they have differentiating factors. So, question 3 purpose is to assess if each interviewed company has its

unique differentiating factor, and to understand if they are related to the three strategic models in the framework (figure 14).

- **Question 4 and 5:** By knowing what are the companies' competitive advantages (question 4) and how they sustain them (question 5), enables to see if there are strategic and to understand in which model the strategies are more focused in.
- **Question 6 and 7:** will permit to understand if companies are managing knowledge strategically, by crossing the answers with the framework (figure 14), to see if in which model they fit the most and to see what benefits they believe to have by doing so. All the questions have common points, meaning that the strategy is not only understood by one single question, but all questions, emerging a common logic, so any contradiction will be immediately revealed.

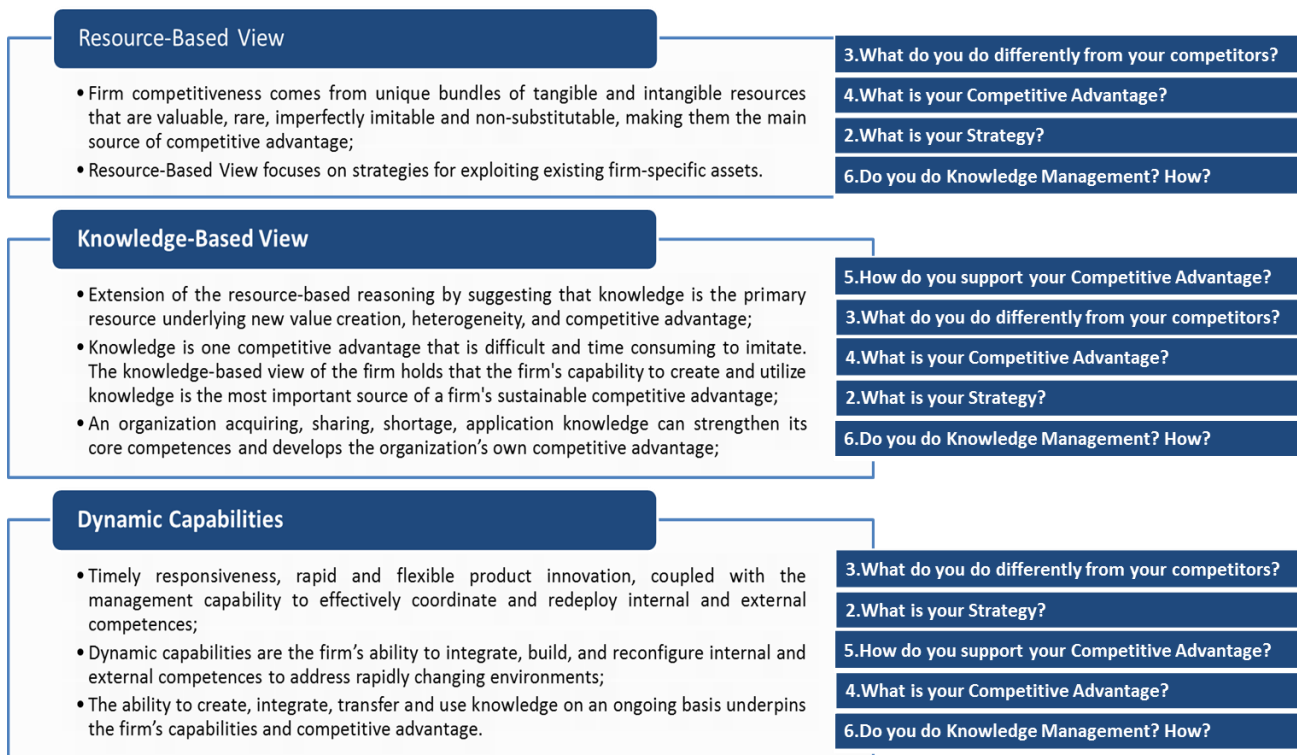


Figure 15: Questions mapped in the framework

As it can be seen in figure 15, the questions cover each bullet point of the framework. These questions are related to the companies' competitive advantage, strategy and knowledge management, allowing therefore assessing by which strategic model they are best explained.

After having the framework (figure 14) created, and the questions defined, the managers of six of the most historic and important footwear factories in the city of São João da Madeira were personally interviewed. The interviews consisted in seven open questions, with the framework (figure 14) always connected to each question, by focusing on their strategy, competitive advantage and knowledge management, where the managers also explained the industry and the production processes. Not mentioning a strategy imbedded in one of those strategic models, in the framework (figure 14), meant that they are not considering them in their strategies, so even their silence can be interpreted. (Interviews in Appendix)

By crossing the interviews with the framework (figure 14) proposed, it is possible to conclude if the companies manage knowledge strategically and to determine in which strategic framework (figure 14) the company best fits in.

Not to forget that, we will assume that their answers represent what the company actually does, and hence the company's strategy will be understood.

Question 2 - What is your Strategy?

- **Evereste:** Their focus is on the quality and excellence in service delivery. The products are always trendy and modern. Evereste' strategy can be explained by the Dynamic Capabilities model in the framework proposed (figure 14), because they have a concern in developing the footwear, to adjust to market changes and evolution.
- **Mariano:** Their main concern is producing with maximum quality. Their producing method is still handmade, like in the old days. All the used raw materials are first quality, regardless of the costs. So, Mariano' strategy can be described by the resource-based and knowledge-based view models, since they only rely on the knowledge of producing handmade footwear with extremely high quality and on the premium resources they use, not on the market's evolution, having a more static strategy.

- **Meigo:** Meigo' strategy is focused in the development and production of their own brand, which only a few companies have, allowing to take very small and adjustable orders. Creating their own brand, to manage to be flexible, positions Meigo' strategy in the Dynamic Capabilities model, since they have a concern to be dynamic and flexible to the evolution of the market.
- **Fits-all:** To provide an orthopedic solution to the feet of any client is Fits-all's goal. They can produce custom made shoes, 100% tailored to the client's feet. They also have semi-orthopedic shoes, which has a more standard production, but also personalized. By having custom made footwear, Fits-all shows a concern to adjust to the market's demand; therefore Dynamic Capabilities model is the one that best explains their strategy. Fits-all isn't just focused producing standard orthopedic shoes, but in tailoring them to the client needs and wants.
- **Netos:** They focused the importance of attending many fairs, to be up to date with the new machines and components, and, as a result to be on the front line. Delivering products on time, all of them with excellent quality, to make clients loyal, are a part of their strategy, allowing them to have clients that are with them for more than thirty years. Both the knowledge-based view and the dynamic capabilities model explain Netos' strategy, KBV regarding their know-how that enables them to deliver on time with excellent quality, DC because they are concerned in adapting their products to the market's changes, so they attend many fairs per year.
- **Zarco:** Its strategy is to internationalize their brand. They are positioned in a very restrict market, the high luxury end, and are always looking for ways to innovate, even in the smallest details. By showing the preoccupation to constantly innovate, shows a concern to be dynamic and develop their products, not just settling in the high luxury category. That said, when comparing Zarco' strategy with the framework (figure 14), the dynamic capabilities model is the one that best explains their pursued strategy.

Regarding the companies' strategy, the overall strategy of the interviewed firms is to produce high quality and fashionable footwear, to constantly innovate even if only in small details, to provide a good service-experience by delivering always on time and top quality product. A firm's dynamic capabilities

contribute to gain competitive advantage in demanding and fast-moving environments, such as the footwear industry in Portugal, since they have to be constantly adjusting to the market changing needs.

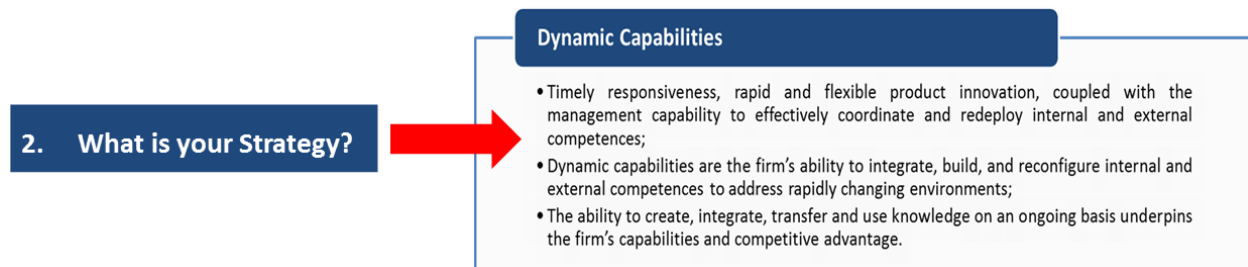


Figure 16: Question 2

With the conclusions made per question, we can say that the dynamic capability model is the one that generally explains the better, due to the need and use of timely responsiveness and flexible innovation to adjust to the constantly changing trends, and still always delivering top quality product on time. And, as it can be seen in the framework (figure 14), the dynamic capabilities model, and this strategy is all about the ability to create-integrate-transfer-use knowledge to address highly changing and demanding environments. The knowledge-based view model is also used to explain two strategies that depend on the knowledge gained with years of experience.

Question 3 - What do you do differently from your competitors?

- **Everest:** distinguished the variety of their footwear line, with many different options, a line quite comprehensive. Their products are different, since they do not want to commercialize equal products to their competitors. Therefore, the dynamic capabilities model in the framework proposed (figure 14), is the model that best explains Evereste' strategy regarding differentiating factors, since they have dynamic products, to enable them to always be different in the changing market.
- **Mariano:** focused on the handmade know-how in producing their premium footwear and their advertising strategies, through their website and Facebook page. Mariano's differentiating strategy is explained by the knowledge-based view model, because is their knowledge in producing premium handmade footwear, that allows them to be different.

- **Meigo:** On the other hand, Meigo emphasizes specifically on the design of their footwear and the flexibility in taking very small orders (40 pairs). Being focused on the future, through being flexible and with a trendy design, allows Meigo's differentiating strategy to be explained by the dynamic capabilities model.
- **Fits-all:** differentiates with level of customization of their shoes and innovation, by always being in the front line of the development. Fits-all goal is to innovate and to always be ahead of the competitors regarding development, so, this differentiating strategy is best explained by the dynamic capabilities model, since they develop resources in function of the market.
- **Netos:** As one of the oldest company in the country, Netos relies on customer's loyalty for over thirty years, with their experience; they always deliver high quality on time. These differentiating factors are best placed in the knowledge-based view model, because it is due to the knowledge sharing and application that they differentiate themselves in this fierce industry.
- **Zarco:** does not have direct competitors in their market segment in Portugal, since their product has different construction and quality. They have a quality control process during all stages of production, since selecting the materials to the conception.

With this question, it can be concluded that in fact all these successful companies have their distinct differentiating factor. Still, these differentiating factors can be generally connected to the strategic models, knowledge-based view and dynamic capabilities, since it's their unique knowledge embed in their organization that allows them to have such distinct production forms, deliver high quality on time, and their constantly innovative lines, manufacturing and flexible orders.

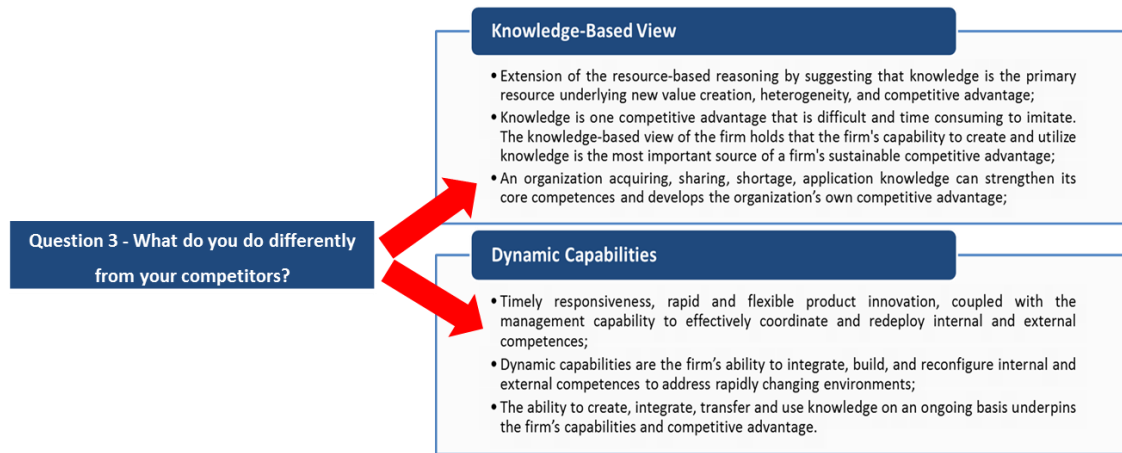


Figure 17: Question 3

Question 4 - What is your Competitive Advantage?

- **Evereste:** Regarding competitive advantage, Everest highlighted the service they deliver, always within the deadline, never delayed. They are efficient and hence have the ability to quickly cope with the clients' requests. Also, their footwear line, that is different and always trendy. This answer is aligned with what they said their strategy was. So, this can also be explained by the dynamic capabilities model in the framework proposed (figure 14), because this company has a strategy focused on the constant adjustment to the market, by developing their products and their service. In addition, the knowledge-based view model is also explanatory of their strategy, because the on time, efficient and fast service delivery comes from applying knowledge obtained with years of experience in this industry.
- **Mariano:** focuses on their handmade production, to have competitive advantage. Once again, Mariano' strategy is explained by the resource-based and knowledge-based view models, since their knowledge allows them to have handmade production, but it is static and not focused on the future changes in the market.
- **Meigo:** believes its competitive advantage comes from having its own brand. Meigo's focus is on the flexibility obtained from having their own brand, allowing them to be dynamic and

adjustable to the market changes. Therefore, it is best explained by the dynamic capabilities model of the framework (figure 14).

- **Fits-all:** considers that their competitive advantage it's their constant innovation; being always ahead in what concerns technology. So, this technological innovation, and product differentiation, can be explained by the dynamic capabilities model, for its adaptation to the market's evolution.
- **Neto:** agrees that their competitive advantage is their effectiveness, enabling them to always delivering on time, and their honesty in doing business. This effectiveness comes from applying and sharing the knowledge they have acquired with 30 years of experience. That said, the knowledge-based view is the model that best qualifies.
- **Zarco:** points out that their detail innovation and market know-how makes them more competitive. As for Zarco, the models are knowledge-based view and dynamic capabilities, since they rely on their knowledge to be competitive, and are concerned with the changing market needs, adjusting their resources.

As it can be seen, the answers to this question are all aligned with the strategy the managers said they pursue. Despite the fact that all the companies' managers referred different factors that leads them towards having competitive advantage, they are all focused in the knowledge required to deliver the best service possible, by always delivering fast, on time and with high quality. So, it is possible to conclude that question 4 is focused in the knowledge-based view area of the framework (figure 14), since this strategic model defends the knowledge-based view of the firm as the firm's capability to create and apply knowledge as the most important source of competitive advantage. The competitive advantages mentioned by these companies, are based on the knowledge they have acquired with years of experience in this industry, allowing them to deliver on time, and have production know-how.

For such companies, where knowledge is the one and only source of competitive advantage, the usage of the SECI model can be as model to keep generating and transferring knowledge. The SECI model helps creating a knowledge-sharing culture, increasing therefore the amount of knowledge a company owns. The SECI model is able to do so through the 4 phases of knowledge creation.

Also, the dynamic capabilities model is present when explaining their strategies, since these firms are aware of the importance in innovating through products, materials and production forms. Showing therefore a concern to be dynamic and evolve with the market.

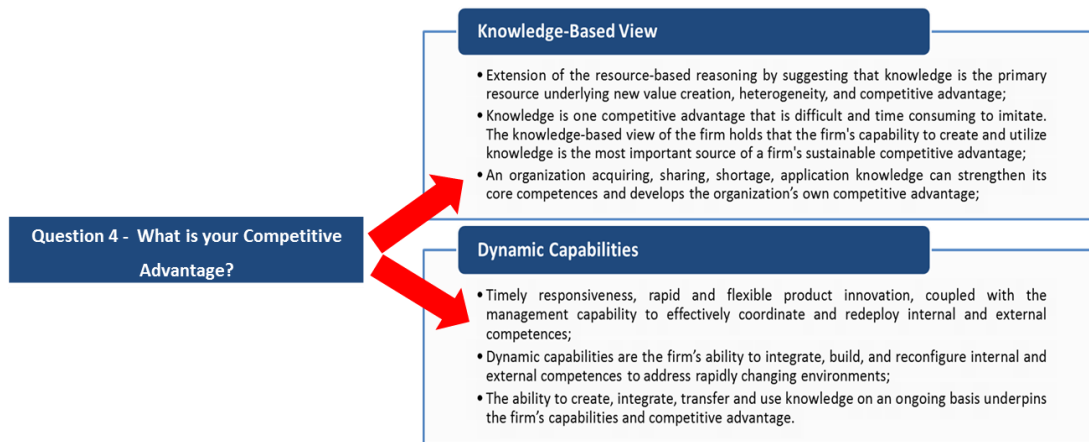


Figure 18: Question 4

Question 5 - How do you support your Competitive Advantage?

- **Evereste:** supports its competitive advantage by pursuing their strategy, meaning, they are focused on keeping customers satisfied, maintaining their trust, delivering latest trend products, by being always efficient and keeping deadlines. To ensure that efficiency, they have 4 people completely focused on all the production stages. Again, with this answer it is possible to say that Evereste' strategies are aligned, still being explained by the dynamic capability model, due to their focus in the future and in adjusting to market's evolution.
- **Mariano:** maintains its competitive advantage by ensuring the fabrication processes remain constant, and by keeping the workers which have excellent technique skills and are well trained. Once again, their strategy being focused on the knowledge their workers have in producing high quality handmade footwear, it is explained by the knowledge-based view model of the framework (figure 14).
- **Meigo:** In order to ensure its competitive advantage, Meigo has 10 sellers across 25 European countries. They attend a lot of fairs, but essentially fashion fairs, which is where their main

clients are. In this way, they are always aware of what is happening in the market, by knowing the latest trends, and what the demand will be, by their clients. Meigo' strategy being their own brand, which allows them to be flexible and innovative, the way they maintain their competitive advantage through fairs and prior knowledge to the next trends, so it is still explained by the dynamic capabilities model. They are concerned in adjusting their products to the new trends the changes in the market brings.

- **Fits-all:** keeps competitive advantage through constant research of new materials and processes. The development of a website allowed them to maintain a closer contact with the client and give them the option to easily personalize his/her shoe, giving them also precious knowledge about what they want and need. Being the customization of the footwear their main strategy, aligned with the constant innovation in processes and materials, they pursue a dynamic strategy that enables them to in front of the line and up to date in the market, instead of being static, meaning that their strategy is still explained by the dynamic capabilities model.

- **Netos:** are efficient in the production; they are always studying the market to know what it needs, being therefore updated. With the adopted technological innovations in the company, they can continue to keep the promise to be punctual in delivering the products, and, thus, offer them on time solutions. They send their workers to the shoe technological center, so that they improve their skills. Some people from this center come to the company to study the process and see where there are possible "bottlenecks". Netos' strategy comes a lot from their experience and consequent knowledge in producing, still they are not only explained by the knowledge-based view model, since they are always concerned with adjusting their products to the latest trends, to adjust the techniques in the company and to develop their employees know-how, so they are also explained by the dynamic capabilities model.

- **Zarco:** has a very strong team of designers, agents and commercials spread all over Europe. They also have a fabulous team of workers willing to be constantly learning and innovating, allowing them to maintain its competitive advantage. So, they are willing to maintain their capability to keep innovating and adjusting to the evolving market, having the entire organization aligned with their strategy explained by de dynamic capabilities model.

When talking about how to maintain competitive advantage, although the interviewed companies have different sources of competitive advantage, they have all generally agreed in the importance of attending fairs to adjust their footwear lines to the latest trends, keeping a close contact with the client, the constant and excellent training of their workers, as the most important ones. With the conclusions per company in this question, it is clear that Dynamic Capabilities comes with great importance, since they depend on their capability to flexibly innovate and adjust to trends quickly and efficiently, in this competitive industry, as shown by the Porter’s Five Forces model (figure 12).

As put by the authors, Teece, et al. cited in Ogreaan et al. (2009), “the term dynamic refers to the shifting character of the environment: Certain strategic responses are required when time-to-market and timing is critical, the pace of innovation is accelerating and the nature of future competition and markets is difficult to determine. The term capabilities emphasize the key role of strategic management in appropriately adapting, integrating, and re-configuring internal and external organizational skills, resources and functional competencies toward changing environment”.

Still, knowledge-based view is explanatory of their strategy to maintain competitive advantage, by knowledge being their key resource to have differentiating customer service and production processes. “The knowledge-based view of the firm holds that the firm’s capability to create and utilize knowledge is the most important source of a firm’s sustainable competitive advantage” (Hsien Liao and Chein hu, 2007 cited in Madhoushi and Sadati 2010).

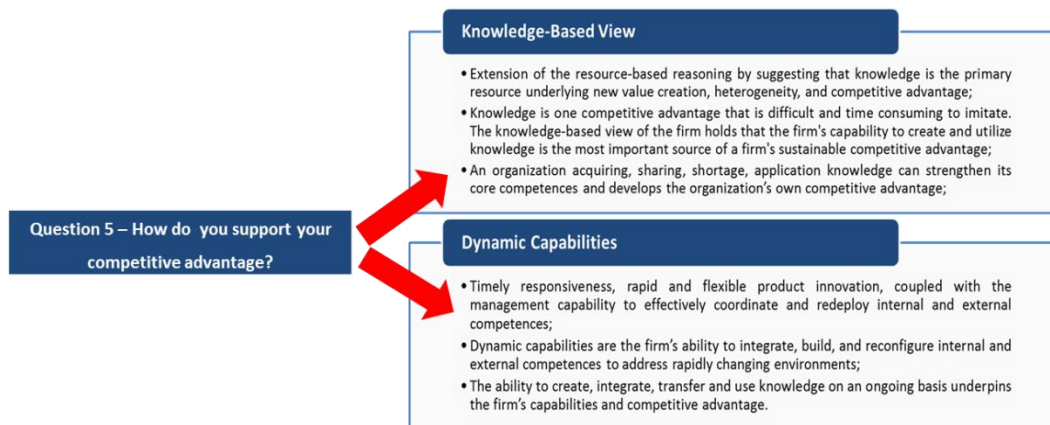


Figure 19: Question 5

Question 6 - Do you do Knowledge Management? How?

- **Evereste:** manages its knowledge by having four workers focused on all the production processes, which are in charge of spreading knowledge between all stages. With this answer it is possible to conclude that the top manager of Evereste is conscious of the importance of managing knowledge strategically. Their strategy is explained by the dynamic capabilities model, and to remain efficient in delivering on time a trendy footwear line, they need to spread that knowledge to adjust to market's changes.
- **Mariano:** on the other hand, does knowledge management through internal training, given to their workers, by the ancient ones, who have been working there for more than 40 years. Mariano's top manager has knowledge management present in his strategies, and to manage to maintain their strategy explained by the knowledge-based and resource-based view models, he has to ensure that knowledge is spread throughout the entire organization and that it doesn't get lost with personnel changes.
- **Meigo:** Regarding Meigo's knowledge management, since a great part of the knowledge is retained on the manager, due to, not only his own knowledge, but also to the small dimension of this company, he ends up assigning tasks and passing the information to his workers. All knowledge is retained by the manager, and then written and kept in different notebooks. Once again, knowledge management is present in the manager's reasoning, as a vital strategy to be capable of producing quickly, of being up to date with the latest trends and production processes. Since its strategy is explained by the dynamic capabilities model, it is possible to verify that they manage knowledge strategically, with a concern with the capacity to adjust to market changes and the creation of strategic competences.
- **Fits-all:** One of the Fits-all associate has a vast experience in this industry, which allowed possessing the required knowledge to succeed. Much experienced workers, who possess unique know-how, give internal training in the company. Through informal meetings, they pass on the knowledge to workers. They also have many written process, which are available electronically. Furthermore, the workers go, a bit through all the areas to really get the grasp of what they are

truly doing. To keep innovating and responding fast to changes in the market, top managers of Fits-all are aware of the importance of retaining and spreading the knowledge that allows them to have competitive advantage. Therefore, the dynamic capabilities model explains their strategy and confirms that they are managing knowledge strategically, in order to remain competitive in this fierce industry.

- **Netos:** manages knowledge electronically, where they have all documented and organized. They also manage knowledge with internal training. Knowledge management is present in the strategy of Netos' top managers, due to his awareness of the importance to ensure that the expertise and knowledge acquired with over 30 years of experience doesn't get lost and enables them to keep gaining competitive advantage. Their strategy is explained by both the knowledge-based view and dynamic capabilities models, since they are concerned with adjusting to the new trends that come with the market's evolution and because their know-how permits them to quickly deliver on time with high quality.
- **Zarco:** does knowledge management through human resources management, where they have a platform with the job descriptions and performance analysis and promote the synergy of functions. They gather frequently with people from all over the departments of the company, by making them aware of what is going on internally, and they share their ideas and opinions. Meaning, they have the "helicopter vision", everybody gets together and everyone cooperates. They promote the dialogue and communication within the company (Social Knowledge Management). To preserve and transmit the know-how of the workers involved in the making of the shoe; they have internal training during 5/6 years. Whenever it is possible, they take our workers to the international fairs, so that they can understand their works' importance and how the industry functions. Zarco's top manager gives high importance to knowledge manager as an enabler to create and maintain competitive advantage, and as seen by her answer, they do so in a very complete way. Their strategy is best centered in the dynamic capabilities model, due to their constant focus in innovate quickly, even in the smallest details, always with the high quality. It is therefore possible to conclude that they manage knowledge strategically, as a way to create strategic competences, adjustable to the market.

As to Knowledge Management, all companies have their very own way to manage knowledge. Knowledge is managed through internal courses, by word-of-mouth or by simply having everything written down in notebooks, or saved in their system's databases. No matter what way they have chosen to do it, they are all very aware of the importance to do it strategically.

As it can be seen with this question, these companies knowledge is generally tacit. By following the SECI model, a company can ensure that knowledge, both tacit and explicit, is being created and spread properly throughout the corporation, align with the company's strategy, and adding value to the company's knowledge. It consists of four dynamic and spiral key processes through which tacit and explicit knowledge are shared within individuals and groups of the organization. Those processes are socialization, externalization, combination and internalization. With socialization, tacit knowledge is shared with others by way of advising and mentoring, this is what happens in all the companies, where there is the concern of sharing knowledge with the entire firm. Externalization is the procedure of converting tacit knowledge into explicit knowledge, for example, by writing, as Meigo's manager does. Combination involves combining different types of explicit knowledge, by exchanging knowledge via documents, telephone and meetings. Internalization converts explicit knowledge into tacit knowledge (Nonaka and Takeuchi 1995).

Question 7 - What benefits do you obtain from Knowledge Management?

- **Evereste:** When pointing out the benefits obtained from knowledge management, Evereste mentioned management skills and a very stable workforce. There is not any great mobility between workers; some of them have been working there for 30 years. Consequently, that gives them great experience, reducing production times and training costs. Consequently, gives them the opportunity of negotiating prices, and a better know-how of the footwear design and execution. This knowledge management, by spreading the knowledge through the entire company, giving them superior know-how, allows them to create strategic competences. Due to the fact that they can innovate and adjust to changes in the market faster than others.

- **Mariano:** benefits from client loyalty, brand awareness and a premium product well valued in the market. Strategic knowledge management permits Mariano to keep producing high quality products, retaining their customers and their positive brand awareness.

- **Meigo:** Due to their market knowledge, Meigo does not require to resort to outsourcing, which reduces costs and allows cutting on distribution channels. By managing knowledge strategically, Meigo is capable to adjust its collections in a fast and affordable way, allowing them to remain strategically dynamic.

- **Fits-all:** With knowledge management, Fits-all has improved market know-how and gained a greater capacity to innovate. Knowledge management supported the creation of strategic competences, adjustable to the evolving market. Meaning that, it made them possible to quickly adjust their footwear to the market's demands.

- **Netos:** By managing knowledge, Netos became more efficient, by reducing costs and time. With knowledge management present in their strategy, it was possible to efficiently adjust to the changing and evolving market.

- **Zarco:** considers that knowledge management allows them to preserve know-how. Their knowledge and market experience allows them to maintain a more competitive position. It also permits to reduce time in processes. So, it is possible to conclude that knowledge management creates the necessary competences to be strategic and to evolve with the market.

When answering about the benefits they have noticed knowledge management brought to their companies, the general opinions are that reduces time and costs, allowing them to be more efficient and competitive, and consequently retaining clients.

3.4.3.1 Intermediate Conclusions obtained from the interviews' analysis

By dividing the answers per question, and then comparing each answer to the framework (figure 14), in order to see with which strategic model they had more common characteristics and consequently fit the better, made it possible to keep concluding that the six companies' strategic model fits in Dynamic Capabilities. Of the three models, Dynamic Capabilities is the one that gathers the more characteristics of the strategies followed by the interviewed companies, since all companies are very flexible, fast in reaching the market with new innovations and trends. Knowledge management is what enables these companies to be so competitive and dynamic in the industry rapidly changing environment.

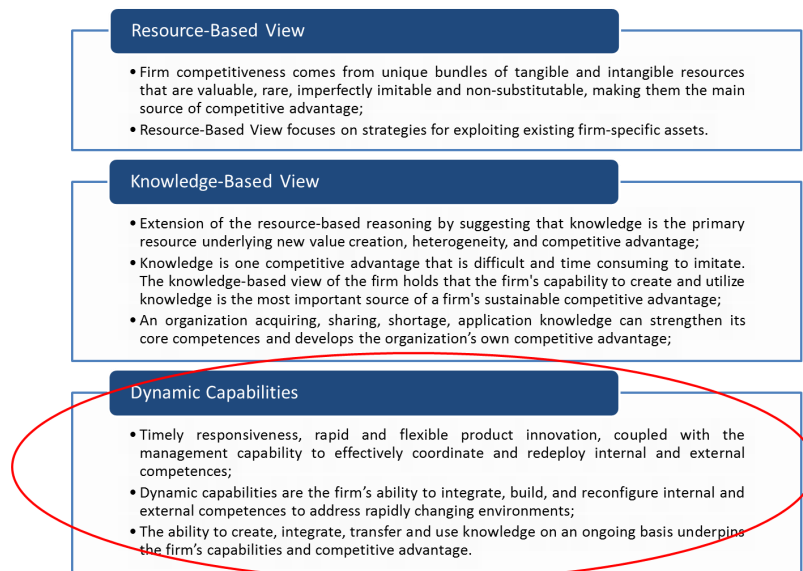


Figure 20: Strategic Knowledge Management Framework – Dynamic Capabilities

As the Porter's Five Forces Model allowed concluding, the footwear industry is a competitive industry, with demanding buyers, several competitors worldwide, a big range of suppliers and a constant need for innovation and superior quality. So, the differentiating factor these companies possess is knowledge and the capability to deploy it (which is also knowledge). It's the unique knowledge the workers have in producing the footwear, in dealing with suppliers and customers, or managing the supply chain, that allows them to remain competitive. This knowledge cannot be retained in a single unit of the companies' structure; it has to be spread throughout the Value Chain. By spreading the expert knowledge workers have, and by applying it in every phase of the process of producing and selling

footwear, the companies are able to reduce time and costs, deliver the orders on time, and have extremely satisfied customers, who know that the company is trustworthy and want to keep doing business with them. Creating and exchanging knowledge is what enables their strong competitive advantage.

The interviewed managers were all aware of the importance of extracting and maintaining their workers' knowledge in the company. Due to the dimensions of the companies, this knowledge conversion is made through internal courses, by word-of-mouth or by simply having everything written down in notebooks, or saved in their system's databases. This is always done in a way to ensure that knowledge is a part of value creation.

The Footwear Industry is very competitive, as seen in the Porter's Five Forces Model, due to the fact that is hand to hand with the fashion industry, making it a fast moving industry. So, companies have to be aware of the constant changes in the design of the footwear, and adjust their models to the new demands of the market. They also need to have the capability of keeping up with the fashion industry dynamics. To produce a new collection, involves all the activities of the Value Chain, from inbound logistics to marketing and sales. And, as Porter points out, all these activities of the value chain are connected by linkages, and so, to be able to update the collections, there is a need to have efficient and accurate information/knowledge flowing from one to another. That way, companies in depth knowledge allows them to have more easily the needed dynamic collections, which keep adjusting to the market's trends.

The Porter's Value Chain, which connects all the activities, from the inbound logistics, to the service delivery, the interviews conducted allows one to conclude that knowledge management impacts every primary value of the footwear manufacturing companies' Value Chain. It does so by contributing to the reduction of costs, of time spent during and between processes, and by increasing profits and customers' loyalty. The knowledge that people have improves the inbound logistics, the operation, outbound logistics, marketing and sales, and finally the service itself, by permitting it all to keep flowing in a fast and time/cost efficient way.

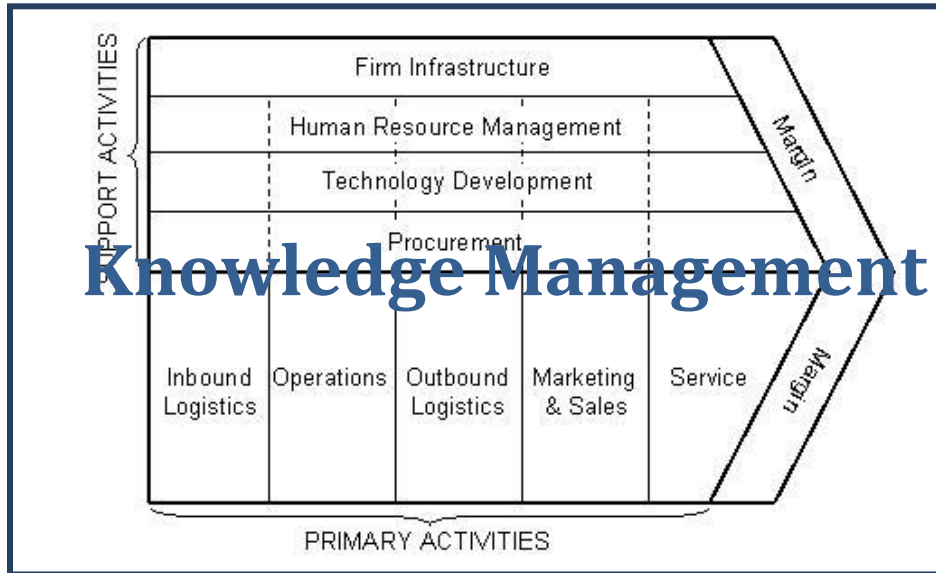


Figure 21: Porter's Value Chain & KM

This knowledge sharing and extraction is done in a more simple way, because the companies do not have a cost structure or the dimension, to have a CKO (Chief knowledge Officer) or to develop databases. They have to do it in the way their dimension allows them to, by having the workers teaching each other their techniques, by writing down everything, by maintaining contacts with suppliers and clients, by having key persons in their organization, which know every little process, and follow the entire supply chain, being always aware of how the process is developing and spreading the word.

4. Conclusions

As previously stated, the purpose of this work was to answer the research question: “Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?” To help answer this research question, the following two hypotheses were suggested: (H1) Knowledge is also managed in small-medium enterprises. (H2) The Portuguese footwear industry benefits from knowledge management.

With the in depth analysis of the literature review gathered regarding knowledge, Knowledge Management and its relation with the three strategic models: Resource-Based View, Knowledge-Based View and Dynamic Capabilities, and Knowledge Management in SMEs, it was possible to verify the first hypothesis. The second hypothesis was supported by applying the Value Chain and the Five Forces Model by Porter’s to the Portuguese Footwear Industry, and confirmed by building a framework (figure 14) to assess if the companies are managing knowledge strategically.

(H1) Knowledge is also managed in Small-Medium Enterprises.

This hypothesis comes with great importance, due to the fact that the objects of this study are Small-Medium Enterprises. So, there was the need to first understand if knowledge management is applicable to smaller companies, as it is to larger ones.

The Literature Review chapter shows that knowledge management can create and sustain competitive advantage. Organizations, which have a structure with the appropriate culture and leadership to help in the creation of knowledge, that use the SECI model and that continuously innovate, are supposed to have competitive advantage. Also, with unique and dynamic capabilities and resources, such as knowledge, that are not easily copied by competition or transferable, helps companies to become rare in what they do, therefore create more value.

Regarding the applicability of Knowledge Management in SMEs, the analysis of the literature review made it possible to answer this first hypothesis. As (Chan and Chee-Kwong 2008) points out, for SMEs, Knowledge is, even more, a strategic asset, inimitable by competition, and hence, bringer of competitive advantage. It is observed that knowledge management is done in SMEs, but differently, mainly, because,

they frequently face lack of resources (most of them do not possess or even intend to possess Knowledge-related softwares). As a result, SMEs tend to manage knowledge much more tacitly.

Summing up, knowledge is managed by SMEs and is as important to them as it is to larger corporations. Still, it cannot be forgotten that the dimensions of a smaller company, makes the process of managing knowledge different, because SMEs must do more with less, and “have to be creative in working around these limitations in order to manage knowledge” (Desouza & Awazu cited in Zanjani et al. 2008). Nonetheless, “the non-bureaucratic nature of SMEs tends to make them knowledge generators, because less formal strategies in SMEs facilitates the communication of knowledge, improves informal networks, increases speed of decision-making and level of innovation, improves the degree of employee commitment and receptiveness of novelty” (Egbu and Sturges cited in Clarke and Turner 2003).

(H2) The Portuguese footwear industry benefits from knowledge management.

This second hypothesis was answered in distinct phases. First by showing through the Porter’s Five Forces Model that the Footwear Industry is competitive, with demanding buyers, several competitors worldwide, a big range of suppliers and a constant need of innovation and superior quality. So, there is a need for companies to be strategic, if they want to sustain profits and remain in the business. Second, by proving, with the Porter’s Value Chain, that Knowledge Management has the potential to impact each area of the value chain, and hence, can increase the footwear producing company’s competitive positioning, since knowledge is an incorporated part of value creation. Meaning that, having a well-established system to better manage information and knowledge within the company can positively impact every primary value chain activity.

Finally, after showing with the Value Chain and Porter’s Five Forces Porter’s model that the Portuguese Footwear Industry is competitive and can benefit from Knowledge Management, a framework (figure 14) was created based on the literature review, to allow us to identify if companies manage knowledge in a strategic way. This framework (figure 14) is based on the characteristics of the three strategic models: Resource-Based View, Knowledge-Based View and Dynamic Capabilities, which can be applied to assess if knowledge is being managed strategically. Using this model, the interview’s key questions were defined, making it possible to determine if the interviewed companies are managing knowledge strategically, and in which strategy is focused. We will assume that their answers represent what the company actually does, and hence the company’s strategy will be understood.

Interviews to six footwear manufacturing companies from São João da Madeira, also known as the “Portuguese Footwear Capital”, were conducted. In the following bullet points, we have the conclusions per question. The detailed analysis of the interviews is in the previous section, number 3.4.3 – Knowledge Management in the Portuguese Footwear Industry.

- **Question 2:** Regarding the companies’ strategy, the overall strategy of the interviewed firms is to produce high quality and fashionable footwear, to constantly innovate even if only in small details, to provide a good service-experience by delivering always on time and top quality product. A firm’s dynamic capabilities contribute to gain competitive advantage in demanding and fast-moving environments, such as the footwear industry in Portugal, since they have to be constantly adjusting to the market changing needs. With the conclusions made per question, we can say that the dynamic capability model is the one that generally explains the better, due to the need and use of timely responsiveness and flexible innovation to adjust to the constantly changing trends, and still always delivering top quality product on time. And, as it can be seen in the framework (figure 14), the dynamic capabilities model, and this strategy is all about the ability to create-integrate-transfer-use knowledge to deal with these demanding environments. The knowledge-based view model is also used to explain two strategies that depend on the knowledge gained with years of experience.
- **Question 3:** With this question, it can be concluded that in fact all these successful companies have their distinct differentiating factor. Still, these differentiating factors can be generally connected to the strategic models, knowledge-based view and dynamic capabilities, since it’s their unique knowledge embed in their organization that allows them to have such distinct production forms, deliver high quality on time, and their constantly innovative lines, manufacturing and flexible orders.
- **Question 4:** As it can be seen, the answers to this question are all aligned with the strategy the managers said they pursue. Despite the fact that all the companies’ managers referred different factors that leads them towards having competitive advantage, they are all focused in the knowledge required to deliver the best service possible, by always delivering fast, on time and with high quality. So, it is possible to conclude that question 4 is focused in the knowledge-based view area of the framework (figure 14), since this strategic model defends the knowledge-

based view of the firm is the firm's capability to create and apply knowledge as the most important source of the firm's competitive advantage. The competitive advantages mentioned by these companies, are based on the knowledge they have acquired with years of experience in this industry, allowing them to deliver on time, and have production know-how.

For such companies, where knowledge is the one and only source of competitive advantage, the usage of the SECI model can be as model to keep generating and transferring knowledge. The SECI model helps creating a knowledge-sharing culture, increasing therefore the amount of knowledge a company owns. The SECI model is able to do so through the 4 phases of knowledge creation.

Also, the dynamic capabilities model is present when explaining their strategies, since these firms are aware of the importance in innovating through products, materials and production forms. Showing therefore a concern to be dynamic and evolve with the market.

- **Question 5:** When talking about how to maintain competitive advantage, although the interviewed companies have different sources of competitive advantage, they have all generally agreed in the importance of attending fairs to adjust their footwear lines to the latest trends, keeping a close contact with the client, the constant and excellent training of their workers, as the most important ones. With the conclusions per company in this question, it is clear that Dynamic Capabilities comes with great importance, since they depend on their capability to flexibly innovate and adjust to trends quickly and efficiently, in this competitive industry, as shown by the Porter's Five Forces model (figure 12).

As the authors, Teece, et al. cited in Ogreaan et al. (2009) put it, "the term dynamic refers to the shifting character of the environment: Certain strategic responses are required when time-to-market and timing is critical, the pace of innovation is accelerating and the nature of future competition and markets is difficult to determine. The term capabilities emphasize the key role of strategic management in appropriately adapting, integrating, and re-configuring internal and external organizational skills, resources and functional competencies toward changing environment".

Still, knowledge-based view is explanatory of their strategy to maintain competitive advantage, by knowledge being their key resource to have differentiating customer service and production processes. "The knowledge-based view of the firm holds that the firm's capability to create and

utilize knowledge is the most important source of a firm's sustainable competitive advantage” (Hsien Liao and Chein hu, 2007 cited in Madhoushi and Sadati 2010).

- **Question 6:** As to Knowledge Management, all companies have their very own way to manage knowledge. Knowledge is managed through internal courses, by word-of-mouth or by simply having everything written down in notebooks, or saved in their system’s databases. No matter what way they have chosen to do it, they are all very aware of the importance to do it strategically.

As it can be seen with this question, these companies knowledge is generally tacit. By following the SECI model, a company can ensure that knowledge, both tacit and explicit, is being created and spread properly throughout the corporation, align with the company’s strategy, and adding value to the company’s knowledge. It consists of four dynamic and spiral key processes through which tacit and explicit knowledge are exchanged within individuals and groups of the organization. Those processes are socialization, externalization, combination and internalization. With socialization, tacit knowledge is shared with others by way of advising, this is what happens in all the companies, where there is the concern of sharing knowledge with the entire firm. Externalization is the procedure of turning tacit knowledge into explicit knowledge, for example, by writing, as Meigo’s manager does. Combination involves combining different types of explicit knowledge, by exchanging knowledge via documents, telephone and meetings. Internalization converts explicit knowledge into tacit knowledge (Nonaka and Takeuchi 1995).

- **Question 7:** When answering about the benefits they have noticed knowledge management brought to their companies, the general opinions are that reduces time and costs, allowing them to me more efficient and competitive, and consequently retaining clients.

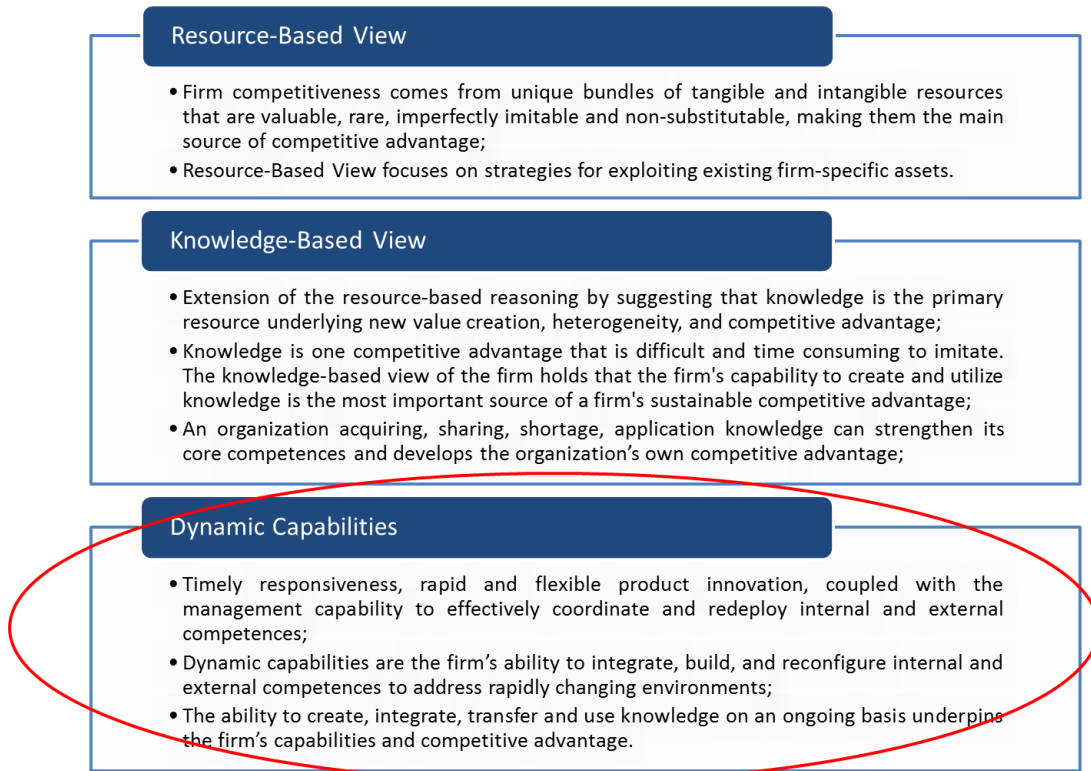


Figure 22: Strategic Knowledge Management Framework – Dynamic Capabilities (II)

Comparing the answers obtained from the interviews to the framework (figure 14), made it possible to realize that the six companies' strategic model fits in Dynamic Capabilities. Of the three models, Dynamic Capabilities is the one that gathers the more characteristics of the strategies followed by the interviewed companies, since all companies are very flexible, fast in reaching the market with new innovations and trends. Knowledge management is what enables these companies to be so competitive and dynamic in the industry rapidly changing environment.

Meaning that, we have proven that knowledge management is applied strategically by the top managers of the footwear industry, from an analysis of how it is, by crossing the interviews with the strategic framework proposed (figure 14).

It's the unique knowledge the workers have in producing the footwear, in dealing with suppliers and customers, or managing the supply chain, that allows them to remain competitive. By spreading the expert knowledge workers have, and by applying it in every phase of the process of producing and selling footwear, the companies are able to reduce time and costs, deliver the orders on time, and have

extremely satisfied customers, who know that the company is trustworthy and want to keep doing business with them. Creating and exchanging knowledge is what enables their strong competitive advantage.

So, regarding (H2) The Portuguese footwear industry benefits from knowledge management, it is clear that Portuguese footwear companies also manage knowledge, and depend on it to be competitive and to keep innovating and adjusting to the changes in the market. There is as well the concern of spreading the knowledge throughout the entire company, and making sure that it remains in there, so that when an employee leaves, the knowledge doesn't leave with him/her. Not to forget that this knowledge sharing and extraction is done in a more simple way, because the companies do not have a cost structure or the dimension, to have a CKO (Chief knowledge Officer) or to develop databases. They have to do it in the way their dimension allows them to, by having the workers teaching each other their techniques, by writing down everything, by maintaining contacts with suppliers and clients, by having key persons in their organization, which know every little process, and follow the entire supply chain, being always aware of how the process is developing and spreading the word.

Finally, with all these analysis done, it is possible to positively answer the research question: "Is knowledge Management applied strategically by the Portuguese Footwear Industry managers?". As seen by crossing the interviews with framework (figure 14) created, knowledge is applied strategically by the managers of the Portuguese Footwear Industry. So, this way, these essentially family-owned firms, ensure that the expertise and knowledge acquired with years of experience doesn't get lost with the personnel changes and is applied to improve their value chain, to make them more innovative and maintain their competitive advantage in the footwear market.

4.1 Future Research

This study limitation is regarding the number of interviews conducted. It would have been more interesting to have a larger number of company's managers answering the questions and explaining what gives them competitive advantage in this fierce industry and how they manage their companies' knowledge. This way, the differences found between managing knowledge in smaller firms, could be more diverse. And one could also have found more examples regarding the strategy that manufacturing companies follow to manage their employee's knowledge.

That said it would be productive to, in a future study, conduct more interviews to footwear manufacturing companies based in São João da Madeira, to see if there are more different ways to manage knowledge, if they have acknowledge the importance of having a knowledge-based strategy and what sets them apart from competitors.

5. References

1. Alberghini E., Cricelli L. and Grimaldi M., 2009. Implementing Knowledge Management through IT Opportunities Definition of a Theoretical Model Based on Tools and Processes Classification.
2. Arora P., Ownes D., Khazanchi D., 2010. A Pattern-Based Tool for Knowledge Management in Virtual Projects, *The IUP Journal of Knowledge Management*, Vol .8 pp. 60-80.
3. Bahlmann M.D. and Huysman M.H., 2008. The Emergence of a Knowledge-Based View of Clusters and Its Implications for Cluster Governance, *The Information Society*, Vol.24 pp.304-318.
4. Brewer P.D. and Brewer K.L., 2010. Knowledge Management, Human Resource Management, and Higher Education A Theoretical Model, *Journal of Education for business*, Vol.85 pp.330-335.
5. Byrnes M.T., Bromfield M.J., Taskent D. and Doane M.P., 2005. Brain Power as Competitive Advantage, *Bell Labs Technical Journal* Vol.9 pp.145-154.
6. Cabrales, A.L., Luno, A.P. and Cabrera, R.V., 2009. Knowledge as a mediator between hrm practices and innovative agency, *Human Resource Management*, Vol.48, nº4, pp. 485-503.
7. Casselman R.M. and Samson D., 2007. Aligning Knowledge Strategy and Knowledge Capabilities, *Technology Analysis & Strategic Management*, Vol.19, no.1 pp.69-81.
8. Chan I. and Chee-Kwong C., 2008. Knowledge Management in Small and Medium Enterprises, *Communications of the ACM*, vol. 51 nr.4.
9. Clarke J.L. and Turner P., 2003. Extending the Knowledge-based View An Examination of Intellectual Property Strategies in Australian Biotechnology Firms, *Prometheus*, Vol.21, nº1 pp.85-99.

10. Doval E., 2007. Organization's Competitive Advantages related to societal knowledge management, *Economic Science Series*, pp.233-239.
11. Dyer, J.H. and Hatch, N.W., 2006. Barriers to Knowledge Transfers, *Strategic Management Journal*, Vol.27 pp.701-719.
12. Easterby-Smith M. and Prieto I. M., 2008. Dynamic Capabilities and Knowledge Management, *British Journal of Management*, Vol.19 pp.235-249.
13. Fard, H. D., Selseleh M., 2010. Measuring Knowledge Management Cycle Evidence from Iran, *European Journal of Scientific Research*, Vol.41, pp.297-309.
14. Felin T. and Hesterly W.S., 2007. The Knowledge-Based View, nested heterogeneity, and new value creation philosophical considerations on the locus of knowledge, *Academy of Management Review*, Vol. 32, pp.195-218.
15. Geeta R., 2010. Knowledge Management and E-Learning Activities in the 21st Century to attain Competitive Advantage, *Advances in Management* Vol.3 pp.54-56.
16. Grant M. R., Almeida P. and Song Jaeyong., 2002. Are Firms Superior to Alliances and Markets? An Empirical Test of Cross-Border Knowledge Building, *Organization Science* Vol.13 pp. 147-161.
17. Grant M. R. and Baden-Fuller C., 2004. A Knowledge Accessing Theory of Strategic Alliances, *Journal of Management Studies* pp.62-84.
18. Grant M.R., 1996. Toward a Knowledge Based Theory of the Firm, *Strategic Management Journal*, Vol.17 pp.109-122.
19. Grant M.R. and Spender J.C., 1996. Knowledge and the Firm Overview, *Strategic Management Journal* Vol.17 pp.5-9.

20. Hauer I., 2009. Some considerations about knowledge management, a view from knowledge management and artificial intelligence relationship, *Megatrend Review*, Vol.6 pp.269-278.
21. Heiman B. and Nickerson A.J., 2002. Towards Reconciling Transaction Cost Economics and the Knowledge-based View of the Firm The Context of Interfirm Collaborations, *International Journal of the Economics of Business*, Vol.9, nº1 pp.97-116.
22. Kearns G.S. and Sabherwal R., 2006. Strategic Alignment Between Business and Information Technology A Knowledge-Based View of Behaviors, Outcome, and Consequences, vol.23 nº3 pp. 129-162.
23. Li Q., Li X. and Zhou P., 2010. The Strategic Choice of Core Competitiveness in Power Generating Enterprises Knowledge Management, *International Journal of Business and Management*, Vol.5, nr 8.
24. Liang T-P., Chen D-N. and Lin B., 2009. An ecological model for organizational knowledge management, *Journal of Computer Information Systems* pp.11-22.
25. Madhoushi M., and Sadati A., 2010. Knowledge Management, Antecedent of Organizational Innovation and Competitiveness.
26. Nickerson J.A and Zenger T.R., 2004. A Knowledge-Based Theory of the Firm-The Problem-Solving Perspective, *Organization Science*, Vol.15, no.6, pp.617-632.
27. Ogorean C, Herciu M and Belascu L., 2009. Searchin for Competitive Advantage-From Tangibles to Intangible, *Journal of US-China Public Administration*, Vol.6 nr.4.
28. P. M. e Sá and A. Abrunhosa., 2007. The Role of TQM Practices in Technological Innovation The Portuguese Footwear Industry Case, *Total Quality Management*, vol.18, pp.57-66.

29. Rennols K. and AL-Shawabkeh A., 2008. Formal structures for data mining, knowledge discovery and communication in a knowledge management environment, *Intelligent Data Analysis*, pp.147-163.
30. Simsek Z., 2003. *Toward Knowledge-Based View of Entrepreneurial Initiatives and Performance*, Academy of Management.
31. Teece D.J., Pisano G. and Shuen A., 1997. Dynamic Capabilities and Strategic Management, *Strategic Management Journal*, Vol. 187, 509-533.
32. Todtling F., Lehner P., Trippi M., 2006. Innovation in Knowledge Intensive Industries The Nature and Geography of Knowledge Links, *European Planning Studies* Vol.14 N°8, pp.1035-1058.
33. Tsai Y. Y., Jhang J.R., 2010. A study of the relationship between knowledge-based resources, organizational learning and dynamic capabilities- The case of solar energy and biotechnology firms in Taiwan, *Northeast Decision Science Institute Proceedings*, pp.99-104.
34. Zanjani, M.S., Mehrasa S. and Modiri M., 2008. Organizational Dimensions as Determinant Factors of KM Approaches in SMEs, *PWASET*, Vol.35.
35. Zhang, Z., 2009. Study on Approaches of Constructing Travel Agencies' Sustained Competitive Advantage by Knowledge Management, *Canadian Social Science*, Vol.5 n°6. pp.60-64.
36. Wenhong B. and Jianhua Z., 2009. "Key Points in Implementation of Knowledge Management and its Solutions", *Canadian Social Science*, Vol.5 pp.56-62
37. Wu I.L. and Lin H.C., 2008. A Strategy-Based Process for Implementing Knowledge Management An Integrative View and Empirical Study. *Journal of the American society for information science and technology*, Vol.4 pp. 789-802.

6. Appendices

This chapter contains all the answers to the interviews personally conducted, in Portuguese.

Fábrica de Calçado Everest Lda

1- Introdução sobre Empresa:

Dedicam-se exclusivamente ao fabrico de sapatos de homem de classe média/alta. Uma empresa familiar, fundada em 1942 e já vai na 3ª geração. Trabalha em mercados nacionais e internacionais, do qual 60% é exportado para 5/6 Países. A capacidade máxima de fabrico é de 350 sapatos/dia, mas por média produzem 270. Hoje conta com 70 colaboradores.

2- Qual é a sua estratégia?

A nossa estratégia está muito focada na qualidade e numa excelente prestação de serviços. Ter sempre produtos modernos, actuais e na moda.

3- O que é que faz de diferente dos seus concorrentes?

A diversidade da nossa gama, pois temos propostas muito diferentes e uma linha bastante abrangente. Sermos diferentes nos produtos, pois não queremos comercializar produtos similares aos dos nossos concorrentes.

4- Qual é a sua vantagem competitiva?

O serviço que prestamos. Fazemos as entregas sempre no prazo requerido sem atraso. A nossa capacidade rápida de resposta às solicitações do cliente. Eficiência. A nossa linha de calçado está sempre actual e é diversificada.

5- Como é que sustenta a sua vantagem competitiva?

Mantendo a estratégia de sempre, ou seja, estamos focados em manter os clientes actuais satisfeitos, conservando a confiança que têm em nós, sendo sempre eficientes, cumpridores e com calçado actual. Para ter essa eficiência, tenho 4 pessoas completamente focadas em todas as fases de produção.

6- Faz gestão de conhecimento? Como?

Os 4 colaboradores que estão focadas em todo o nosso processo produtivo fazem a gestão do nosso conhecimento e estão encarregues de o passar entre todas as fases.

7- Que benefícios é que lhe traz a gestão de conhecimento?

Bagagem de gestão, um quadro muito estável. Não há grande mobilidade entre os nossos colaboradores, temos alguns que têm 30 anos de casa. O que nos dá grande experiência, reduzindo o tempo de produção e custos de formação. Consequentemente, maior possibilidade de negociação de preços. Um melhor conhecimento de design e execução de um determinado modelo de sapatos.

CALÇADO MARIANO

1- Introdução sobre Empresa:

Manuel de Almeida Jorge inicia a sua actividade em 1945 com o fabrico manual de calçado de homem. Rapidamente granjeia a mais elevada reputação no mercado doméstico, não só devido à qualidade dos materiais empregues, bem como à perfeição e técnica do material apresentado. Desde então mantida no seio familiar tem sabido responder às exigências do mercado, aliando o “know-how” e os métodos tradicionais de fabrico às novas tecnologias disponíveis, salvaguardando os padrões de qualidade que desde sempre distinguiram a marca de calçado Mariano.

2- Qual é a sua estratégia?

Produzir com a máxima qualidade. O método de fabrico é artesanal, como nos primórdios. Todos os materiais utilizados são de primeira, independentemente dos custos.

3- O que é que faz de diferente dos seus concorrentes?

Primamos pela qualidade. O nosso know-how do fabrico artesanal. Forma de divulgação e de publicidade com o website e uma página de facebook.

4- Qual é a sua vantagem competitiva?

Produção manual/artesanal.

5- Como é que sustenta a sua vantagem competitiva?

Os processos de fabrico mantêm-se constante, e mantemos sempre os mesmos colaboradores com a sua excelente técnica e formação. Inovamos e mudamos com alterações no design dos sapatos. Estamos sempre à procura de próxima moda.

6- Faz gestão de conhecimento? Como?

Através de formação interna dada aos colaboradores pelos colaboradores mais antigos com mais de 40 anos de casa.

7- Que benefícios é que lhe traz a gestão de conhecimento?

Fidelização dos nossos clientes, brand awareness e um produto Premium valorizado no mercado.

Fábrica de Calçado Meigo SA

1- Introdução sobre Empresa:

A Meigo é uma empresa com 45 anos. Actualmente, tem 90% da produção focada na sua marca própria “Hard Hearted Harlot”. Por dia, a fábrica produz 300 pares por dia. 90%. O preço médio por par é de 60€. Os sapatos são produzidos à mão.

2- Qual é a sua estratégia?

A nossa estratégia está focada no desenvolvimento e produção da nossa marca própria. Temos actualmente 450 clientes, que são retalhistas. O objectivo é subir preço médio e focarmo-nos na prestação de serviços, visto que isto é uma Indústria de Serviços.

3- O que é que faz de diferente dos seus concorrentes?

Apostamos muito no design dos nossos sapatos. É esse o nosso grande investimento. Somos também flexíveis na aceitação de encomendas (40 pares).

4- Qual é a sua vantagem competitiva?

Termos a nossa própria marca.

5- Como é que sustenta a sua vantagem competitiva?

Temos 10 vendedores por 25 países Europeus. Frequento muitas feiras, mas essencialmente feiras de moda, que é onde estão os nossos principais clientes. Sendo possível estar sempre por dentro do acontecimento, saber quais são as próximas modas e qual será a procura por parte dos nossos clientes.

6- Faz gestão de conhecimento? Como?

Feiras onde vamos procurar tendências. Apresentamos a nova colecção dois meses antes de todos. Devido á nossa antiguidade, temos informação do retalho. Temos arquivado a informação relativamente a o que cada um dos 450 clientes comprou em cada estação e o seu respectivo crescimento ou decrescimento. Uma vez que grande parte do conhecimento está centrada em mim (gestor), devido não só aos meus conhecimentos, mas também à pequena dimensão da empresa, sou eu que faço a distribuição das tarefas e passo as informações aos meus colaboradores. Todo o conhecimento é retido por mim, escrito e guardado em vários cadernos.

7- Que benefícios é que lhe traz a gestão de conhecimento?

Devido aos meus conhecimentos do mercado, não necessito de recorrer a outsourcing o que me reduz custos e me permite cortar em canais de distribuição.

Fits-all

1- Introdução sobre Empresa:

A Fits-all Orthopeadics, Calçado Especial Lda nasceu em finais de 1999. Desenvolve a sua actividade no ramo de calçado ortopédico de todo o tipo. Está integrada num grupo de empresas holandesas. O mercado está centralizado na Europa, quase toda a totalidade da produção é exportada para a Bélgica, Alemanha, Holanda, Dinamarca e França. O grupo Fits-all criou a marca “Forma Formosa” que integra a gestão dos espaços comerciais, mas também o serviço de podologia e o projecto “par personalizado”. Permitindo uma maior aproximação da empresa com o cliente e um serviço mais personalizado.

2- Qual é a sua estratégia?

Proporcionar uma solução ortopédica para os pés de qualquer cliente. Não temos só um produto, temos uma solução. Fabricamos calçado por medida que é 100% moldado ao pé do cliente, que se pode dirigir a uma loja/consultório de parceiros nossos e tirar um molde. Temos também calçado semi-ortopédico, que tem uma construção mais standard, mas personalizada. Temos por fim palmilhas ortopédicas.

3- O que é que faz de diferente dos seus concorrentes?

O nível de personalização do calçado e a inovação. Estamos sempre na vanguarda do desenvolvimento.

4- Qual é a sua vantagem competitiva?

É estarmos sempre na “Linha da frente” no que diz respeito á inovação e tecnologias e a personalização dos sapatos.

5- Como é que sustenta a sua vantagem competitiva?

Através da pesquisa constante de novos materiais, processos. Desenvolvimento de um website onde podemos ter um contacto mais próximo com o cliente e dar-lhe a hipótese de facilmente personalizar os seus sapatos. Dá-nos conhecimento sobre o que eles querem e precisam.

6- Faz gestão de conhecimento? Como?

Um dos sócios tem uma vasta experiência desta indústria, o que nos permitiu acumular o conhecimento necessário para ter sucesso nesta indústria. O conhecimento dos nossos parceiros também nos ajuda a ter conhecimento da indústria. Colaboradores com muita experiência, know-how, dão formação interna na empresa. Através de reuniões informais passamos o conhecimento para os nossos colaboradores. Temos também muito dos processos escritos e disponíveis informaticamente. Colaboradores passam um pouco por todas as áreas para perceberem verdadeiramente o que estão a fazer.

7- Que benefícios é que lhe traz a gestão de conhecimento?

Melhor conhecimento do mercado, maior capacidade para inovar.

Netos-Fábrica de Calçado SA

1- Introdução sobre Empresa:

Fundada em 1957 por dois irmãos e com apenas 4 empregados. Com o sucesso da empresa, começaram a aumentar o número de colaboradores e de produção. Em 1970 já contavam com uma equipa de 40 pessoas e produziam diariamente 350 pares de sapatos. Em 1974 começaram a frequentar feiras europeias, que lhes aumentou os contactos dentro da indústria e conseqüentemente a produção nacional e internacional.

Actualmente contam com uma equipa de 120 colaboradores e produzem 900 pares por dia. 5% da produção é para a marca própria vendida no mercado interno e 95% da produção é para exportação de marcas de grande renome, de grandes grossistas (private labels).

2- Qual é a sua estratégia?

Vamos a muitas feiras para estarmos sempre a par das novas máquinas e novos componentes, para estarmos na vanguarda. Entregar produtos a tempo, sempre com muita qualidade, para fidelizar os clientes. Os clientes que detemos actualmente já estão connosco há mais de trinta anos.

3- O que é que faz de diferente dos seus concorrentes?

É uma das empresas mais antigas do Concelho. Já trabalhamos com todos os nossos clientes há mais de trinta anos.

4- Qual é a sua vantagem competitiva?

A nossa vantagem competitiva é sermos cumpridores, de confiança e honestos nos negócios.

5- Como é que sustenta a sua vantagem competitiva?

Rentabilizamos a produção. Estamos sempre a estudar o mercado para saber o que ele precisa, para nos mantermos actualis. Com as inovações tecnológicas que aqui adoptamos, conseguimos manter o nosso compromisso de sermos pontuais nas entregas aos nossos clientes, e de lhes dar soluções prontamente. Através do centro tecnológico de calçado, onde enviamos (e vamos buscar) os nossos colaboradores, para que melhorem os seus conhecimentos. Há pessoas do centro de calçado que vêm á empresa estudar o processo e ver onde estão possíveis “bottlenecks”.

6- Faz gestão de conhecimento? Como?

A nível informático, onde temos tudo documentado e organizado. Também através do treino dos colaboradores. Tanto em formações internas como no Centro de Calçado.

7- Que benefícios é que lhe traz a gestão de conhecimento?

Tornou tudo mais eficiente, reduziu custos e tempo.

Zarco - Fábrica de Calçado, Lda.

1- Introdução sobre Empresa

A Zarco – Fábrica de Calçado, Lda. é uma empresa com Sede em S. João da Madeira fundada em 1942 cuja actividade principal é o fabrico de calçado. Há cerca de 25 anos criou a sua primeira marca, MackJames com sonoridade estrangeira devido á dificuldade sentida na altura em entrar nos mercados estrangeiros sendo o produto de origem portuguesa. A Zarco apresenta-se com uma marca portuguesa de referência no calçado masculino a nível internacional – Carlos Santos. A Zarco é uma empresa que desde sempre apostou tudo nos seus recursos humanos e na investigação comercial – só assim é possível abraçar projectos inovadores e de impacto relevante.

Inicialmente a empresa produzia 100% manualmente, mas devido a alterações de estratégia e novas exigências dos mercados onde começaram a entrar, decidiram apostar num produto de valor acrescentado, produzido segundo um sistema Goodyear Welted, aliando-se a tecnicidade das máquinas ao valor sem preço da mão humana – um dos métodos mais antigos e artesanais para produzir aquilo que é considerado o fabrico mais complexo do mundo no sector do calçado. Esta inovação permitiu a entrada em segmentos de mercado de nível elevado ou mesmo de luxo.

2- Qual é a sua estratégia?

A nossa estratégia é internacionalizar a nossa marca. Estamos posicionados num segmento de mercado muito restrito, o segmento de alto luxo. Os produtos que vendemos são “Goodyear”, o que traz valor acrescentado. Temos como objectivo dar uma maior notoriedade à marca dentro do mercado internacional. Estamos sempre á procura de inovar, através de pequenos detalhes.

3- O que é que faz de diferente dos seus concorrentes?

Em Portugal não temos concorrentes devido ao produto que temos. O nosso produto tem diferente construção e qualidade. Temos um processo de controlo de qualidade durante todo o desenvolvimento do produto, desde a escolha de materiais a sua concepção.

4- Qual é a sua vantagem competitiva?

Estamos sempre a inovar nos detalhes dos sapatos que desenvolvemos. E o conhecimento e sensibilidade que temos do mercado, pois já cá estamos desde 1942.

5- Como é que sustenta a sua vantagem competitiva?

Através de uma forte equipa de estilistas, agentes, comerciais por toda a Europa. Uma equipa de colaboradores fantásticos dispostos a aprender e inovar.

6- Faz gestão de conhecimento? Como?

Através de gestão de recursos humanos. Temos uma plataforma com a descrição de funções, análise de desempenho.

Promovemos uma sinergia de funções. Reunimos frequentemente com as pessoas de todos os departamentos da empresa pondo todos ao corrente da situação actual da empresa e na qual todos participam com ideias e opiniões. Ou seja, temos uma visão helicóptero, todos reúnem e todos colaboram. Promovemos o diálogo e a comunicação dentro da empresa. (SOCIAL KNOWLEDGE MANAGEMENT.)

Para a transmissão e preservação do know-how todos os colaboradores envolvidos no fabrico do sapato têm formação interna durante 5/6 anos.

Sempre que possível, levamos os nossos colaboradores para as feiras internacionais para que possam perceber a importância do trabalho deles e o funcionamento da indústria.

7- Que benefícios é que lhe traz a gestão de conhecimento?

Permite-nos preservar o nosso know-how. O nosso conhecimento e experiência de mercado, permite-nos ter uma posição mais competitiva. Redução de tempo em processos.