LAPPEENRANTA
UNIVERSITY OF TECHNOLOGY

Satu Peltola

CAPABILITY MATRIX - IDENTIFYING AND EVALUATING THE KEY CAPABILITIES OF PURCHASING AND SUPPLY MANAGEMENT

Thesis for the degree of Doctor of Science (Economics and Business Administration) to be presented with due permission for the public examination and criticism in the Auditorium of the Student Union House at Lappeenranta University of Technology, Lappeenranta, Finland, on the 30th of May, 2008, at noon.

Acta Universitatis
Lappeenrantaensis
308

Supervisor	Professor Veli-Matti Virolainen Supply Management/ School of Business Lappeenranta University of Technology Finland
Reviewers	Professor Michael Henke Supply Management Institute European Business School Germany
	Doctor Ulla Lehtinen University of Oulu Finland
Opponent	Professor Michael Henke Supply Management Institute European Business School Germany

ISBN 978-952-214-589-5

ISBN 978-952-214-590-1 (PDF)

ISSN 1456-4491

Lappeenrannan teknillinen yliopisto

Digipaino 2008

ABSTRACT

Satu Peltola
Capability matrix – Identifying and evaluating the key capabilities of purchasing and supply management

Lappeenranta, 2008
235 p., 20 Figures, 6 Tables, 5 Appendices

Acta Universitatis Lappeenrantaensis 308
Diss. Lappeenranta University of Technology
ISBN 978-952-214-589-5 ISBN978-952-214-590-1(PDF)
ISSN 1456-4491

Organizations gain resources, skills and technologies to find out the ultimate mix of capabilities to be a winner in the competitive market. These are all important factors that need to be taken into account in organizations operating in today's business environment. So far, there are no significant studies on the organizational capabilities in the field of PSM. The literature review shows that the PSM capabilities need to be studied more comprehensively. This study attempts to reveal and fill this gap by providing the PSM capability matrix that identifies the key PSM capabilities approached from two angles: there are three primary PSM capabilities and nine sub-capabilities and, moreover, the individual and organizational PSM capabilities are identified and evaluated. The former refers to the PSM capability matrix of this study which is based on the strategic and operative PSM capabilities that complement the economic ones, while the latter relates to the evaluation of the PSM capabilities, such as the buyer profiles of individual PSM capabilities and the PSM capability map of the organizational ones.

This is a constructive case study. The aim is to define what the purchasing and supply management capabilities are and how they can be evaluated. This study presents a PSM capability matrix to identify and evaluate the capabilities to define capability gaps by comparing the ideal level of PSM capabilities to the realized ones. The research questions are investigated with two case organizations. This study argues that PSM capabilities can be classified into three primary categories with nine sub-categories and, thus, a PSM capability matrix with four evaluation categories can be formed. The buyer profiles are moreover identified to reveal the PSM capability gap. The resource-based view (RBV) and dynamic capabilities view (DCV) are used to define the individual and organizational capabilities. The PSM literature is also used to define the capabilities. The key findings of this study are i) the PSM capability matrix to identify the PSM capabilities, ii) the evaluation of the capabilities to define PSM capability gaps and iii) the presentation of the buyer profiles to identify the individual PSM capabilities and to define the organizational PSM capabilities. Dynamic capabilities are also related to the PSM capability gap. If a gap is identified, the organization can renew their PSM capabilities and, thus, create mutual learning and increase their organizational capabilities. And only then, there is potential for dynamic capabilities. Based on this, the purchasing strategy, purchasing policy and procedures should be identified and implemented dynamically.

Keywords: capabilities, purchasing, supply management, matrix, dynamic capability view, resource-based view, constructive research method, case study research method, buyer profile

UDC 65.011.4 : 658.7

ACKNOWLEDGEMENTS

I had a dream that I would be a doctor on my 30th birthday – well, not quite but close enough! I took my first steps into the world of research at the same time as the Twin Towers collapsed in the year 2001. Since then, there has been ups and downs. This thesis proved to be a challenging experience to learn my own capabilities and restrictions. The Christmas and New Year of 2007 were very difficult time for me as I was struggling about what to do with my PhD thesis; in other words, to be or not to be. I left my previous topic of risk management and switched it to something else – our project that we had been working on for the last three years. Yes, the topic was purchasing and supply management competencies and capabilities with the theories of dynamic capability; what else would it be (read: not an easy way at all)! Who could ever believe (not me, I can tell) that when the year 2007 went by I would be finishing my thesis, and this new Spring 2008, I would finally celebrate my PhD!

The past year has been a dramatic one in many ways in my personal life, both at home and work, as well as in the more public context because of the disasters that were never supposed to happen, at least not in our neighborhood, not in Finland. I really understood that human life is truly fragile. Traditionally, every project has its obstacles – mine was the fire among other things. However, the most startling moment was on the 23rd of May 2007 with the message of sorrow from Afghanistan. My loving friend and relative, Pete was just killed in the war caused by the roadside bomb attack. It took an enormous effort to get back in business, especially to carry on this study. This road of recovery is still going on, *but in the loving memory of Pete, this is for you, too, wherever you may be watching, guiding and loving us as you ever loved the sky and skydiving. Now there is one shiny cloud more with the ever sparkling star – until we meet once again!*

Besides this study I needed to do something completely different. My personal part of life – renovating houses and then decorating interiors with antique furniture – got to a whole new level. In five years we have renovated three apartments and one house. I have to say, one is still in the progress, as you could say, because we bought the apartment next door and made a hole in the wall. One project is ending and another one is still in its infancy; but hey, that's how it should be, at least in my life.

Having completed my master's degree, this work at LUT provided me the splendid opportunity to introduce the interesting world of purchasing and supply chain management both as a teacher as well as a researcher. However, today it is time to give my thanks to many friends and colleagues who helped me to complete this dissertation. I would like to thank the members of my professional support network. Firstly, I would thank my supervisor Professor Veli-Matti Virolainen for his support to my long-lasting research process. I would also like to thank Professor Michael Henke and Dr. Ulla Lehtinen for acting as my preliminary examiners, because your insightful comments and suggestions have developed this dissertation further. Especially I offer my sincere thanks to my opponent, Professor Henke. Your feedback significantly improved my study.

I wish to express my warm thanks to Pirita Niemi, Toni Vesterinen, Timo Kivistö and Katrina Lintukangas that you have been part of this Eglo project as well as my study. How can I ever thank you enough! I offer my special thanks to Heli Sissonen and Professor Kaisu Puumalainen for their fruitful ideas and guidance along this study in the last few months.

Especially, I am very grateful to you, Heli. Furthermore, I am very grateful to all my colleagues at the university for their support on this bumpy ride as we say thanks to our "collective consciousness". I also wish to thank Hanna Salojärvi, Liisa-Maija Sainio, Pia Heilmann, Tiina Jauhiainen, Jani Mäkinen, Anni-Kaisa Ahtonen and my former colleagues Nina Rasmussen and Jarno Tuimala for making me laugh when I needed it. You provided me with a fruitful environment of cooperation and inspiration.

I gratefully acknowledge the financial support from the following foundations: Viipurin taloudellinen korkeakouluseura, Lahja ja Lauri Hotisen rahasto, Antti ja Jenny Wihurin rahasto, Lappeenrannan teknillisen yliopiston tukisäätiö, Marcus Wallenbergin säätiö, Kaupallisten ja teknillisten tieteiden tukisäätiö – KAUTE and Suomen kulttuurirahasto - Kymenlaakson rahasto.

I appreciate Mrs. Minna Vierimaa for her professional help in editing the language of this dissertation as well as for other supportive advice. Thank you very much, Minna.

Finally, I would like to thank my family, my father Pekka, mother Leena, my sister Sanna, my brother Simo and my grandmother Irja. My father provided me with the needed pressure to get the thing completed. Dad, now you got your "hat"! Especially my loving man, Juha: you have supported me constantly without a doubt that this thesis would be completed. You pick me up over and over again, not to mention your collaboration and discussions on this topic. Words cannot express my gratitude to all you people for all the patience and support you gave me with this work as well as in my life. Without all of you this would be a long road with no place to go – like home (with a bunch of other relatives). Hey you all, now we've got all the time in the world just for us and for fun – let the party begin!

Lappeenranta, May 13th 2008.

Satu Peltola

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION TO THE STUDY

Research on purchasing and supply management (PSM)[1] has evolved since the literature on the late 1800s railroad and cotton field activities to today's professional function with value networks, IT tools and strategic business performance. The focus of PSM has changed from emphasizing the price to other issues such as quality and delivery and, thus, it requires more involvement with suppliers and other internal functions (Baily et al., 2005). Crises have a significant impact due to the availability of material resources and potential supply risks. The role of PSM was especially significant during the World Wars because raw materials were in a crucial role (Monczka et al., 2005). The oil crisis at the beginning of the 1970s was furthermore one turning point for PSM, while there was lack of raw materials and prices jumped to a record high (Ellram & Carr, 1994). Since the 1980s to the late 1990s PSM was focused on the global context, and towards the millennium the topics of PSM were related to integrated supply chain management and achieving strategic advantage (Baily et al., 2005; Monczka et al., 2005). Wars and disasters usually lead to increased PSM capabilities and knowledge when more powerful tools, complementary raw materials and equipments as well as evaluation methods are sought and developed. Indeed, natural catastrophes, strikes and other crises that can imply shortages in the material flows and logistics can hike the prices and, thus, have an impact on the availability, total costs and effectiveness of PSM. As from today, however, economic growth may slow down which could lead to costs becoming the point of attention once again. Thus, there might be problems such as increased purchasing costs and unsuitable purchasing resources, but the lack of appropriate PSM skills, competencies and capabilities that may delay or even stop business growth and profits could become a major issue. From these viewpoints, capabilities should be noticed in the long-term planning of PSM and in the development of PSM capabilities.

The role of the purchasing function has altered from transactional buying to the strategic means of continuous competitiveness. Since the late 1980s there has been a growing tendency that has an impact on purchasing and supply management (Johnson & Leenders & Fearon, 2006). It is necessary that along globalization and ever more extensive outsourcing, the role of

[1] The acronym *PSM* has been widely acknowledged and the term *purchasing* is only used in reference to the actual purchasing function or purchasing process or a few specific terms such as *operative* and *strategic purchasing*. These terms are broadly discussed in the following chapters.

PSM is changing. The traditional role of the profit maker is not enough, because the competitive strength of an organization depends on their ability to manage the critical external resources and organizational PSM capabilities. The utilization of external resources has become one of the most critical development areas of PSM. Today, outsourcing is one of the hottest topics especially in the purchasing of services. While outsourcing is more focused on strategic management, the role of the key players in these buyer-supplier networks is increasing. Specific investments in the partnership play a key role in determining what information and knowledge the organization transfers to their partners. In the Western business environment contractual relations have traditionally been arm's length relationships with competitive tendering and short-term contracts. In this kind of relationship partners select opportunistic behavior rather than cooperation. Thereby both the buyer and the supplier attempt to achieve the maximum benefits from the existing contract – the buyers are trying to find the suppliers that can provide the lowest price with little or no guarantee of business in the future (Baily et al., 2005; Cox 1996; Cox & Thompson, 1997; Dyer & Cho & Chu, 1998; Gadde & Håkansson, 1994; Macbeth, 1994). Now almost every organization is looking for suitable resources, capabilities and partners to achieve higher outcomes and performance. Such issues are significant in the PSM context to add value to the customers and increase the profits and benefits to the owners by performing PSM more effectively.

What about purchasing and supply management in Finland? Increasing overall global competition forces organizations to improve their business performance continually. Organizations have been seen as information processors that take and modify information into knowledge when solving specific problems or creating new knowledge or innovations. These actions require resources and investments usually from outside the organization like investors or stakeholders. It has been claimed that Finland has been one of the top countries in considering competitive advantage[2] in the past few years. Finland has indeed been successful in international assessments of competitive advantage. The International Institute for Management Development (IMD) ranked Finland among the top countries in their comparison of the potential of future

[2] Several authors have defined *competitive advantage*: Jap (2001) suggests, that competitive advantage consists of the resources or capabilities that enable an organization compete more effectively in the markets. Amit & Schoemaker (1993) refer to the specialized resources and capabilities that are difficult to trade and imitate, and are also scarce and appropriable (cf. Barney, 1991). Sustainable competitive advantage refers to the ability to manage internal and external assets to capture the value of the organization (Teece, 2000).

competitive advantage (IMD 2007)[3]. During the past five years, a similar conclusion has been presented by the World Economic Forum (WEF) in their annual assessments (WEF 2007), which measure the potential growth of the economy and, thus, the potential of future competitive advantage. These assessments, however, present a paradox between the future potential and the realized competitive advantage, and this leads to a performance gap and wasted resources. It could be assumed that investments in such resources would be high and ever increasing because organizations constantly pursue sustainable competitive advantage or at least competitive advantage through dynamic capabilities. The extent of intangible[4] investments[5] and economic competencies has increased in the Finnish business sector during 1975–2005 (Jalava et al., 2007). This supports the idea of achieving competitive advantage through intangible assets and could be one reason for the Finnish success in these assessments. Nevertheless, capabilities have a significant role in the business success and, thus, they should also be evaluated in the PSM context.

The core idea of this study evolved during the PSM research project conducted at the Lappeenranta University of Technology in the past years. This PhD study was started after the data analysis of the PSM research project was conducted during the fall 2006. After the data analysis, there was a need for a more combined matrix as well as for more specific and detailed evaluation criteria. Thus, there arose a distinct necessity to examine this issue in more detail. This is a constructive case study. **The aim of this study is to define what the purchasing and supply management capabilities are and how they can be evaluated.** This study presents a PSM capability matrix to identify and evaluate the capabilities to define capability gaps by comparing the ideal level of PSM capabilities to the realized ones. The research questions are investigated with two case organizations. **This study argues that PSM capabilities can be classified into three primary categories with nine sub-categories and, thus, a PSM capability matrix with four evaluation categories can be formed. The buyer profiles are moreover identified to reveal the PSM capability gap.** The resource-based view (RBV) and dynamic capabilities view (DCV) are used to define the individual and organizational capabilities. The PSM literature is also used to define the PSM capabilities.

[3] However, even if Finland is still among the top 20 countries, this trend is decreasing (IMD 2007).
[4] Intangible (knowledge) assets are hard to calibrate, but instead, tangible assets (physical) are easier to calibrate depending on transportation and related costs (Nonaka & Teece, 2001, Teece, 2000).
[5] Intangible investments were 14.2 billion Euros, which was 9 per cent in relation to GDP (Jalava et al., 2007).

The key findings of this study are i) the PSM capability matrix to identify the PSM capabilities, ii) the evaluation of the capabilities to define PSM capability gaps and iii) the presentation of the buyer profiles to identify the individual PSM capabilities and to define the organizational PSM capabilities. Dynamic capabilities are also related to the PSM capability gap. If such a gap is identified, the organization could renew their PSM capabilities and, thus, create mutual learning and increase their organizational capabilities. And only then, there is potential for dynamic capabilities.

1.1. Definitions of the study

This study is focused on two topics: i) purchasing and supply management and ii) the capabilities. Firstly, this study defines the concept of capabilities in general, and secondly, the capabilities of PSM are discussed. There are several terms that are used as synonyms to PSM as well as capabilities in the literature. Thus, the terms and concepts that are used in this study need to be clarified.

1.1.1. Purchasing and supply management (PSM)

While the content of purchasing and supply management has evolved, the actual term *purchasing* has also evolved from the traditional meaning of purchasing to today's value and strategically oriented *purchasing and supply management* (PSM). Traditionally purchasing has been seen as management of the organization's inputs, such as raw materials, services and sub-assemblies (Dobler & Burt, 1996). A similar definition is presented by van Weele (2005) who argues that purchasing is related to external resource management to supply the goods, services, capabilities and knowledge that are necessary for the organization's every day routines and management to ensure the most favorable business conditions. The role of purchasing is to ensure that purchased items will achieve approved quality levels and delivery times at the lowest price (Cousins & Spekman, 2003). Thus, purchasing consists of the purchasing process such as determination of specifications, supplier selection, negotiation, contracting and the delivery follow-ups (van Weele, 2005). A similar or a slightly broader

definition is also concluded by Monczka et al. (2005) when listing that purchasing performs activities such as supplier identification and selection, negotiation and contracting, supply market research, supplier measurement and improvement and purchasing systems development to achieve maximum value to the organization. Thus, purchasing or external resource management[6] is mainly a transactional and commercial approach including non-critical items, ordering and expediting processes, maintaining inventory, arrangements of payments and receipt and storage of supplies (Lysons & Farrington, 2006). This study defines purchasing as being largely associated with the purchasing process as presented above by several authors.

Supply management[7], on the other hand, refers to a broader concept than purchasing, procurement and logistics that are functionally oriented and more specifically defined (Harland et al., 2006; Monczka et al., 2005). Cousins and Spekman (2003, p. 20) define supply management as the "*flow of goods and services through the organisation with the aim of making the firm more competitive*" and "*[u]ltimately, the goal is to contribute to end-use customer satisfaction.*" The strategic role of PSM is frequently mentioned in the supply management research (see e.g. Carter and Narasimhan, 1996; Cox, 1997; Cousins & Spekman, 2003; Ellram & Carr, 1994; Harland & Lamming & Cousins, 1999; Mohr & Spekman, 1994, Monczka et al., 2005). In short, supply management can be defined to include internal operations and external supplies to achieve advantages in cost management, product development, shorter cycle times and quality issues (Monczka et al., 2005). Based on this, **purchasing and supply management (PSM)** is a comprehensive concept that combines the operative side of the coin from purchasing to the strategic context of supply management. Furthermore, PSM is a widely acknowledged and used term in the literature of this field and, thus, also followed in this study.

[6] In the earliest study by Lamming (1985) the terms *purchasing* and *external resource management* are used as synonyms.
[7] For instance, Monczka et al. (2005) use terms *supply management* and *strategic sourcing* interchangeably.

1.1.2. The nature of resources, competence and capability

The terms *competence* and *capability* are used interchangeably in the literature. Both terms describe the factors beyond the success and performance of firms. Capabilities are formed through resources and competencies and, thus, these concepts need to be first clarified. Amit and Schoemaker (1993, p. 33) define resources as *"stocks of available factors that are owned or controlled by the firm"* while capabilities refer to *"a firm's capacity to deploy resources, usually in combination, using organizational processes to effect a desired end."* Traditionally, resources are defined quite simply as the inputs of the production process that can be classified into property- and knowledge-based resources (Miller & Shamsie, 1996). The former refers to tangible resources and the latter to the knowledge assets. According to Wernerfelt (1984), resources are stocks of knowledge, physical and financial assets, human capital and other tangible or intangible assets; whereas, according to Rouse & Daellenbach (2002), resources (tangible and intangible) are bundled, linked, incorporated, converted and organized into capabilities and core competencies which become sources of competitive advantage and can be leveraged into products and services. It is now generally recognized that the competitive advantage of the organization depends on the ownership of knowledge and their complementary assets as well as the ability to build and protect these crucial knowledge assets and benefit from them to create value (Teece, 2000). Competitive advantage is knowledge of how to produce products and services, innovate more rapidly and meet ever changing customer needs to achieve faster lead time in the market (Huczynski & Buchanan, 2007). The abilities to create and utilize knowledge are the most important sources of the organization's sustainable competitive advantage (e.g. Cyert & Kumar & Williams, 1993; Drucker, 1993; Grant, 1996; Henderson & Cockburn, 1994; Leonard-Barton, 1992 & 1995; Nelson, 1991; Nonaka, 1990 & 1991 &1994; Nonaka & Takeuchi, 1995; Quinn, 1992; Sveiby, 1997; Winter, 1987). Knowledge is not static, but it is often managed as such (Birkinshaw & Sheehan, 2002). This may lead to a situation in which the organization only pursues competitive advantage, but never catches the prize – the pure utilization of the competitive advantage to gain business profits.

Capability can be defined as the ability to identify, expand and exploit a business opportunity, which is highly related to the accumulation and development of competencies through the

path of learning and innovations (see the earliest studies by Barney, 1986; Nelson, 1991; Winter, 1987). Capabilities refer to the organization's ability to deploy resources and, thus, capabilities are organization-specific, tangible or intangible processes that are developed over time through complex interaction between the organization's resources (Amit & Schoemaker, 1993). Capabilities are developed through a process that involves organizational experience based on present and future actions and, thus, organizational capabilities are a result of recombining and integrating knowledge within the organization; this knowledge is usually built through learning (Kale & Dyer & Singh, 2002). Dynamic[8] capabilities are the capacity to sense and seize opportunities and to reconfigure and protect knowledge assets, competencies and complementary assets to achieve sustainable competitive advantage (Teece, 2000). Teece et al. (1997) emphasize that dynamic capabilities refer to the integration of management capabilities, organizational resources, that are hard to imitate, as well as functional and technological skills. They also recognize that those aspects are connected to R&D issues, technology transfer, intellectual property, product and process management, human resources and organizational learning. Learning is also emphasized by Zollo and Winter (2002) who argue that dynamic capabilities are patterns of collective activities through which the organization systemically generates and modifies its operating routines to pursue improved effectiveness, and categorize these capabilities under learning and development. Thus, learning and knowledge management processes guide the development, evolution and use of dynamic capabilities. Dynamic capabilities evolve via certain learning mechanisms (Eisenhardt & Martin, 2000; Zollo & Winter, 2002)[9]. The role of the dynamic capabilities' formation and maintenance as well as their continuous development still require mechanisms to enable managerial practices and new methods for solving problems.

Many definitions of dynamic capabilities refer to knowledge. Most of the studies examine how to link knowledge and dynamic capabilities and, thus, many definitions of knowledge are available. First of all, the basic issue is however the term *asset* that may be defined as "a

[8] The term *dynamic* refers to the turbulent environment, in which certain strategic responses are required when timing and the accelerated pace of innovations are critical issues and when the nature of future competition and markets is difficult to determine (Teece & Pisano, 1998).

[9] Learning mechanisms of dynamic capabilities are presented in Chapter 3.2.3. along with path-dependency, the development of dynamic capabilities and the issue of innovation capacity.

useful thing or quality" meaning the business context[10] that knowledge and competence are useful issues for an organization to exploit (Winter, 1987, p. 159). Thus, knowledge assets[11] are stocks of knowledge that may be hard to specify in advance and in contrast to physical assets, and these could last forever, at least in theory (Boisot, 1998). Indeed, such assets are also inputs, outputs and moderating factors that form the knowledge-creating process, and they can be defined as "firm-specific resources that are indispensable to creating value for the firm" and they must be built and used internally in order for their full value to be realized, because they cannot be readily bought and sold (Nonaka & Teece, 2001, p. 29). Knowledge also interacts with and reshapes the existing business environment in the process of knowledge creation. Knowledge develops[12] over time and becomes accessible to more and more people starting from one organization and spreading to others and finally to the general public (Birkinshaw & Sheehan, 2002). Knowledge management, on the other hand, varies in different contexts depending on the organization's underlying costs, demand logic, appropriability regimes, the importance of compatibility standards, the nature of innovation and the richness of technological opportunities (Teece, 2001). The literature on knowledge management distinguishes two knowledge processes, namely, creation and transfer; the former refers to the enhancement of innovations and the latter relates to the knowledge transfer between individuals in an organization (von Krogh & Nonaka & Aben, 2001). These aspects could be summarized as the competence that refers to individual knowledge and skills of human resources rather than the capability that refers to the firm's ability to fulfil its assignments [cf. organizational capability] (Axelsson et al., 2005b). This study shows that individual capabilities are needed in the formulation and development of organizational capabilities through organization-specific shared knowledge, routines, processes and competencies.

[10] See e.g. Boisot (1998) who presents the linkage between knowledge management, organizational capabilities and competitive advantage in the information economy context.

[11] Furthermore, Nonaka & Toyama & Konno (2001) classify knowledge assets into four categories: experiential (such as skills and know-how of individuals or trust), conceptual (design, brand equity or product concepts), systemic (documents, manuals, databases, patents and licences), and routine (know-how in daily operations, organizational routines and culture) knowledge assets.

[12] Birkinshaw & Sheehan (2002) have presented the four stages of the knowledge life cycle in which progress is divided into creation, mobilization, diffusion and commoditization stages.

1.1.3. PSM capabilities

It is a primary premise that PSM capability is a continuum starting from basic knowledge and leading to specific PSM capabilities. One major issue is to identify and confirm which are the significant capabilities in creating value to the final customer. Thus, it is important to identify what capabilities are required in order to manage PSM in the most effective way. In the PSM literature capabilities are defined in various ways. What are the purchasing and supply management capabilities? At least two elements are significant in the studies of PSM capabilities: i) the strategic, economic and operative PSM capabilities as well as ii) the individual and organizational skills, competencies and capabilities. The former refers to the PSM capability matrix of this study classified into these three primary PSM capabilities, while the latter is related to the evaluation of the PSM capabilities such as the buyer profiles of the individual PSM capabilities and the PSM capability map of the organizational ones.

The classical approach is the distinction between the operative and strategic aspects according to the nature and strategic importance of PSM. *Operative purchasing* can be defined as the management of daily basic operations, while *strategic purchasing* can be defined as activities related to supplier relationships management, companywide negotiations and making contracts, implementation of companywide best practices and development of electronic systems (Monczka et al., 2005). Paulraj, Chen and Flynn (2006) further specified the elements of strategic purchasing: i) strategic focus (see e.g. Carr & Smeltzer, 1999) referring to the formally written long-term plan with issues of risk and uncertainty, ii) strategic involvement (see also Reck & Long, 1988; Rozemeijer & van Weele & Weggeman, 2003) as purchasing is included in the organization's strategic planning and performance measurement, iii) top management emphasis on the strategic role of purchasing, iv) good knowledge of the organization's strategic goals at purchasing, and finally, v) the status of purchasing (see also Carr & Smeltzer, 1997) that is related to the PSM viewpoints. In other words, PSM should have a significant role with the top management, namely, PSM has high visibility within the top management and the top management considers PSM to be a vital part of corporate strategy. Strategic purchasing is able to foster long-term collaborative relationships and communication and increase supplier responsiveness (e.g. Carr & Smeltzer, 1999). Carr and Smeltzer (2000) have investigated the relation of individual skills to strategic purchasing,

financial success and buyer-supplier relationships. The PSM competencies and capabilities could be seen as a significant part of general business management (see e.g. Cox, 1997; Harland & Knight, 2001). While the majority of PSM actions have been controlled by information systems, organizations should have more time and resources to enhance strategic purchasing, to develop their purchasing strategy (integrated into the business strategy) and organizational structures and to manage their supplier relationships and value networks. *In this study, the strategic capabilities of PSM are related to the topics of value networks and customer management, business and purchasing strategy issues and supplier relationships with supply market capabilities. The operative PSM capabilities are defined as the purchasing policy issues, the purchasing process and tools and the supplier selection process and the related tools.*

The traditional classification focuses on the presentation of operative and strategic PSM and the related capabilities. This study argues for the third aspect, namely, the economic capabilities of PSM which is based on two significant arguments. First of all, PSM has not truly been considered as part of business success, even if its strategic significance has been acknowledged a long time ago. Thus, this study emphasizes the economic role of PSM as a business function (cf. Dobler & Burt, 1996) and PSM is presented as the competitive weapon of business success and profits. *Subsequently, the economic capabilities of PSM are its economic role and performance measurement as well as cost management and related tools including financial planning and reporting in the PSM context.*

What are the individual capabilities of PSM? PSM capabilities are also related to the individual and operational side of development such as purchasing process activities and negotiations. Faes, Knight and Matthyssens (2001) and Giunipero and Pearcy (2000) have created different buyer profiles to identify the elements of PSM competence (i.e. individual capability) such as strategic and process management, decision-making, quantitative and negotiation skills as well as business skills. Several studies have also maintained that logistical issues and individual PSM capabilities[13] should be explored in the same context (see e.g. Gammelgaard & Larson, 2001). Axelsson et al. (2005b) define individual PSM capabilities as the specific knowledge and skills and personal capabilities to complete the

[13] For instance, Large & Giménez (2006) approached the oral communication capabilities of purchasing managers providing a typology and measurement of these capabilities.

tasks. PSM knowledge and skills are related to the know-how about supplier markets, the analytical skills of the purchasing personnel and the use of performance measurements (e.g. Carr & Smeltzer, 1997; Axelsson et al., 2005a). Purchasing professionals require skills in strategic thinking, communication (written and oral), negotiation and team work, change and customer management, leadership, decision-making and learning (Faes et al., 2001; Gammelgaard & Larson, 2001; Giunipero & Pearcy, 2000). These studies are closely related to the classification and measurement of personnel characteristics. *The individual capabilities of PSM are presented in the buyer profiles* discussed later in this dissertation.

What are the organizational capabilities of PSM? Narasimhan & Jayaran & Carter (2001) define the organizational PSM capabilities as the concept of buyer-supplier relationships and personnel capabilities. Narasimhan and Das (2001) argued in their study on the buyer-supplier relationship that organizational PSM capabilities are formed from the optimization of the buyer-supplier base, development and evaluation of suppliers as well as supply integration. The organizational knowledge base includes the technological capabilities and the knowledge of customer needs as well as suppliers' capabilities (Teece, 2000). Narasimhan and Das (2001) separate capabilities and practices arguing that PSM practices are internal observable activities that can be measured, and PSM capabilities are the ability to structure, develop, and manage the supply base in alignment with the business priorities of a firm. Axelsson et al. (2005b) pointed out that human resources, technologies, production equipment, organization structures and processes refer to the organizational capability to manage and fulfil the organization's assignments. Thus, PSM capabilities may be summarized into the factors of (Narasimhan et al., 2001) i) empowerment (involvement related to the operational and job issues), ii) employee competence (e.g. training and performance evaluation), iii) interaction effectiveness (tactical levels referring to the purchasing interaction with other functions such as production or quality control and new product development related to engineering and R&D interactions) and iv) buyer-seller (or supplier) relationship management with regard to risk sharing, joint actions and cost sharing with the supplier. Thus, the organization must have the ability to manage internal and external assets to capture value. *The organizational PSM capability map will later reveal the gaps in the PSM capabilities.*

This study agrees with the definition presented by Boisot (1998) that competence is formed from the organizational and technical skills involved in achieving a certain level of performance [operational view], while the term *capability* retains the strategic skills in the application and integration of such competencies. This study follows the latter definition referring to both the individual and organizational PSM capabilities. This study also adopts the view of Kyläheiko, Sandström and Virkkunen. (2002) arguing that the organization consists of human, physical and financial resources and a knowledge base which is divided into the static resources that already exist and are routinely exploited and the dynamic capabilities that are new or not fully identified or exploited and, thus, the business success depends on the organization's ability to exploit these static resources and to explore dynamic capabilities. In this study the individual PSM capability can be defined as individual knowledge, skills, ability, attitude and willingness to perform the required tasks, while the organizational PSM capability is the unique integration of human resources, technologies, equipment, organizational structure, routines and processes that are commonly acknowledged within the organization. If the PSM capability gap is identified, the organization will learn and renew individual capabilities within the organization to create organization-specific routines and processes that may further create dynamic capabilities. **Thus, the key PSM capabilities are defined as the organization's ability and willingness to deploy individual PSM resources by using organizational capabilities and processes to achieve their goals and fulfil the duties of PSM.**

1.2. Origins of the study

As the significance of the strategic management of PSM is increasing, new challenges are faced. The identification of the current and potential capabilities gives an insight where the organization should focus their development actions in order to reach better conditions for surviving in their business. Increasingly, PSM supports the organization to find under-performing innovation areas of PSM and, thus, enhances performance in that area by constantly seeking better practices. Organizations themselves continuously develop new tools and ideas to reveal opportunities, profit and especially future outcomes. The future of PSM may lead to more advanced supply chains, value addition and sophisticated total customer

focus (Baily et al., 2005). Additionally, organizations should determine the most valuable, concrete actions that will enhance their PSM capabilities comprehensively. While such an emphasis is clearly important, it sheds only little light on the potential performance gaps of PSM capabilities from the organizational viewpoint.

This study uses the collected data and modified capability matrix originally created in the PSM project of the Lappeenranta University of Technology (LUT), Department of Supply Management. Therefore, it is necessary to clarify a few issues of the PSM research project, its linkage to the entire EGLO project, and finally, what the role of this study is in this context.

The PSM research project conducted at LUT was part of the larger EGLO (Enhancing Global Logistics) project[14]. The aim of the project was to identify the elements of PSM, in other words, what the current state of PSM was in Finnish business sectors. This project was divided into two phases: the first one was a quantitative survey study reported in the survey report, and the second phase was a qualitative case study published in the final report of the PSM research project. The first part of the project was entirely supported by the EGLO project. The second part of the project was mainly supported by the Finnish Ministry of Transport and Communications, and the other supporters were The Finnish Association of Logistics and the case companies. Figure 1 presents the timetable of the phases of the PSM research project at LUT.

[14] See for instance EGLO 2007 for a broader presentation of this entire program and project.

Part 1 – SURVEY **-** Literature review - Survey - Numerical analysis - Final report - Conference papers & journals	**Winter 2005** **Spring 2005** **Summer - Fall 2005** **Spring 2006** **ongoing**		
Part 2 – CASE STUDIES - Capability matrix - Data collection - Data analysis - Final report		**Fall 2005** **Fall 2005 - Spring 2006** **Fall 2006** **Spring 2007**	
Part 3 – CONCLUSIONS - Final report of the project - Further research projects			**Spring 2007** **ongoing**

Figure 1. Timetable of the entire PSM research project

Figure 1 presents the timetable for the three parts of the PSM research project. The different parts of the PSM research are now more broadly discussed to form a comprehensive view of the entire project with the linkage to this study.

1.2.1. Part 1 of the PSM research project – survey

The literature review on PSM was the first step of this PSM research project in the winter 2005. The analysis of the literature demonstrated that there is a research gap and, thus, there was a need for a comprehensive examination of the current state of PSM in Finland. Therefore, the role, position and level of knowledge of PSM in Finnish organizations could be explored. Part 1 of the PSM research project was a survey study, which was conducted during the spring 2005. The aim was to clarify the current state and future directions of purchasing and supply management in Finland. The survey was addressed to 570 Finnish companies with a turnover of at least 50 million Euros. A total of 100 responses were received, the response

rate being 17.5 per cent. The survey consisted of four interrelated parts: organizational status, measures and indicators, information technology and skills, capabilities and competencies of PSM. The major targets for development of PSM in Finland were supplier relationships and process improvements. The future trends seemed to be outsourcing and centralization. The analysis of the survey was processed in the summer and fall of 2005, and the survey report[15] was concluded in the spring 2006. Several conference papers and journals have been composed from the survey part of the PSM project (see e.g. Lintukangas et al., 2007; Lintukangas, 2007).

1.2.2. Part 2 of the PSM research project – case studies and linkage to this study

When finishing the first part of the PSM research project, the second part, namely the case study, was started in the fall 2005. The actual planning process of the case study implementation as well as the formulation of the PSM capability matrix was conducted during the fall 2005. The data was collected during the fall 2005 and spring 2006, and the analysis was conducted with the original PSM capability matrix created by the research team during the fall 2006. This second part of the PSM project ended with the conclusions of the study, and the summary of the findings were presented in the fall 2006 in selected seminars as well as a workshop with the case companies. The final report of the case studies was included into the final report of the entire PSM research project in the spring 2007.

This second part of the PSM research project provided the idea of this study and thus, it is necessary to explain more widely how the original case study was conducted and especially how the data was collected because it was used in the re-readings and re-analyses in this study. Therefore, the research methodology of the issues of the PSM research project (rf. the case study part) are now extensively discussed in this part of the study rather than in the actual methodology section presented in Chapter 2.3. which is focused on the methodology of *this study*.

[15] See further information of the research report at ”Hankintatoimen nykytila ja tulevaisuuden haasteet” (Virolainen et al., 2006) [in Finnish].

The second part of the PSM research project followed the qualitative research process (see e.g. Alasuutari, 1999; Metsämuuronen, 2006) with the planning and implementation of the pre-questionnaire as well as the actual interviews. Then, the data was collected and documented in written format. These transcripts were used in the data analysis. The conclusions of the case study were conducted. Thus, the data collection and analysis are now esxtensively discussed to understand how the data used in this study were collected.

Why select the interview? Interview is an appropriate technique, when the research topic is intimate or emotional, there is requirement to identify the subject or need for examples, there is no objective test available or when there is need for a specific order to the themes so that the interviewee does not know the forthcoming issues (Hirsjärvi & Hurme, 1985) and thus, the interview was selected as an appropriate method in the PSM research project. *Why then select the semi-interview technique?* While case studies have become one of the most common ways to conduct qualitative research (Stake, 2003), interviews are becoming even more relevant, especially the types of interview: structured, semi-structured or more open, unstructured interview. A structured interview is implemented by using a structured questionnaire with specific questions and answers, whereas an open interview or unstructured interview, as it is often also called (e.g. Bogdan & Taylor, 1975), is based on discussion of the topic and the interviewer only confirms that the required topics are covered in the interview (Grönfors, 1982). Semi-structured interviews (or theme interviews) are focused on predetermined themes, but the specific questions or their order is not selected as strictly as in a structured interview (Hirsjärvi & Hurme, 1985). A semi-structured interview combines the two interview types by using structured, prepared questions without any specific, complete answers and, thus, the interviewee can answer more openly and own views can be formed without any assumptions or clues given by the interviewer. This PSM research followed the process of the semi-structured interviews as the basic source of data (see e.g. Hirsjärvi & Remes & Sajavaara, 2002; Hirsjärvi & Hurme, 1985 & 1991 & 2000). In the beginning of the project, the research team also considered the structured interview, but the final conclusion was that it could produce too many “ready” answers, if the interviewee had no knowledge of the issue. Therefore, the semi-structured interview was the only appropriate choice that takes these both situations into consideration. Moreover, the team discussed about group and

individual interviews and concluded on the latter one due to the research topic – capabilities, especially individual ones – which could be a sensitive subject to someone.

On the basis of the qualitative research process, the following step of this second part of the PSM research project was designing the pre-questionnaire (see Appendix 1). The research team planned and set the questions related to the interviewee backgrounds that were required in the analysis of individual PSM capabilities. The last assignment before the actual interview situation was preparing the field work such as i) designing the interview questionnaire (see Appendix 2 about the interview structure), ii) selecting and preparing the interviewers, iii) setting the timetable for the interviews (see Appendix 3 about the agenda for the interviews) and iv) sending the pre-questionnaire to the interviewees by e-mail to be filled in before the interviews took place. The pre-questionnaire was sent by e-mail just a few weeks before the actual interview situation.

The actual interview structure was formed according to three primary PSM capabilities: strategic, economic and operative. There was no need for the interviewee to be acknowledged of the interview structure before the interviews, because it could be assumed that the questions related to the interviewee's work and task and if the interviewee truly knew the topic, there would be no need for any preparation to the answers. The interviews followed a specific structure, as illustrated in Appendix 2, with open-ended questions (i.e. a semi-structured interview).

The case study requires a fundamental analysis of the potential cases and, thus, the selection of appropriate case organizations is a crucial issue. At least as significant a topic is the appropriate selection of interviewees; *but how to select the interviewees*? Eskola and Suoranta (1998) pointed out the principles of selecting the interviewees and recommended that interviewees i) have quite a similar context with each other, ii) have similar information and knowledge as the researcher and iii) are also interested in the actual study. This recommendation was also followed in the PSM research project and all the interviewees were interested in the topic, which was one of the primary reasons to select these case organizations. Even though the interviewees were working on different organizational levels, it could be assumed that they shared a similar context in the surrounding environment such as

organizational values, atmosphere and routines. However, it could be assumed that they had different levels of knowledge related to PSM. *It should be emphasized that the final selection of the interviewees was made by the case organizations, not the research team.* This was because the organization had the highest knowledge of their organizational structure and of the tasks the employees are performing. Based on this, there were five interviewees from the first case organization and thirteen interviewees from the other one.

Case study considers contextual value (Syrjälä et al., 1996) and, thus, there might be a strong connection between the interviewee and the researcher (Eskola, 1966), which may cause a risk of incorrect estimation. This sensitivity to the research environment should be noticed already in the planning of the research process. *Then, how to select the interviewers?* A problematic relationship between the interviewees and the research investigators could be avoided or at least minimized by selective selection of the interviewers. In general, a case study may involve one or more researchers gathering a huge amount of data from the organization(s) to form a comprehensive picture of the phenomenon under investigation (McCutcheon & Meredith, 1993). Interviewers were selected from the research team because they had a comprehensive view of the study, case organizations and the research purposes. The research team also discussed about the number of interviewers: whether there should be only one or several. For instance, there is a dyadic situation between one interviewer and one interviewee (see e.g. Hirsjärvi & Hurme, 1991). Due to the nature of the sensitive research subject, the actual situation could be more comfortable and flexible, if there were more than just two persons[16] present. After these discussions and decisions, the timetables were set.

The actual field work was the implementation of the interviews. The Author and the other members of the research team conducted the interviews based on the planned timetables and agenda as illustrated in Appendix 3. The interviews were completed in the spring 2006 and they lasted 1.5–2 hours. The interviewees were informed of the forthcoming interview and its topic. Garrett (1964) strongly endorses that sometimes it is necessary to be familiar with the subjective elements in order to plan objective actions to implementation. Such exercise questions are also advocated by Grönfors (1982) to create an open and positive atmosphere in

[16] An interview situation with several persons is recommended, for instance, by Grönfors, (1982), even if he refers to several interviewees, but a similar assumption could be made in estimating the number of interviewers.

the actual interview situation, and this can be recommended, if the relationship between the interviewer and the interviewee is casual or absent. Therefore, the interviews were started with questions that were more familiar to the interviewee and, thus, it would be more comfortable to find an open channel for discussion.

What about the documentation to use the same data in the future? Documentation is a crucial part of data collection. Stake (1995) argues for a data storage system, such as a diary or a log in a calendar, files, coding cabinet or photocopied and placed in more than one file. Thus, the interviews were recorded on tape to be documented in text format. This documentation task was performed by the research assistants who transcribed the recorded tapes. After the data is documented, it should also be coded to form the analysis. The Author and two team members (Lintukangas and Vesterinen) participated in the data coding that was implemented during the fall 2006. Data coding was conducted on the basis of the buyer profiles of the interviewees. There were three professional and four non-professional profiles that were identified from the PSM literature and the arguments of the research team. In other words, the role and task of the interviewee were identified from the pre-questionnaire and, thus, the buyer profile was defined. Eisenhardt (1989) recommends a data analysis that allows research to benefit from flexible data collection. Finally, the data analysis was implemented during the fall 2006. The final report of this part of the project was conducted during the spring 2007.

1.2.3. Part 3 of the PSM research project – final report and closing the project

The third and the final part of the PSM research project was closing the project. The conclusions from both of the studies were summarized in the final report of the PSM research project that was completed in the spring 2007. The PSM research project led to further research in collaboration between LUT and the St. Petersburg State University, Graduate School of Management, School of Management (SOM). The research team was formed with the researchers both from Finland (LUT) and Russia (SOM). A similar study was replicated in Russia during the year 2006 using structured interviews (with 208 Russian companies) based on the modified LUT questionnaire. Comparative research has been conducted since the year 2006 and collaboration is still continuing. These results are and will be presented in several

journals (see e.g. Jumpponen et al., 2007a & 2007b). At the same time when the entire PSM research project was coming to a close, this study was taking its first steps.

1.2.4. The role of the Author and this study in the context of the PSM research project

Even if the core idea of this PhD study evolved during the PSM research project, in the winter 2007 the research problem of this study was clarified. The written work of this study was started in the beginning of the year 2007 with the literature review on this topic to find ways to modify and develop the original matrix. Then, the collected data was re-analyzed by re-reading the written documents and coding performed on the basis of the modified matrix. After the analysis, the study findings were concluded.

Further, even if this study is linked to the PSM research project in many ways, **this is a separate study because the aim of this study is derived from the literature on PSM rather than the EGLO project agenda. However, the PSM research project has influenced this study by facilitating the idea of the PSM capability matrix**. **This study is focused on the theories beyond the PSM capability matrix to modify the original matrix.** Even though the Author conducted this study, the data used was collected in the PSM project through the pre-questionnaire and the interviews. It should be emphasized that this is a separate study that only uses the collected data and modifies the PSM capability matrix that were originally created in the PSM project. **Furthermore, this study uses the same buyer profiles and names defined in the original project. The IDEAL levels were defined by the PSM research team and the Author, while the REALIZED levels have been performed by the Author.** However, in this study the buyer profiles (ideal levels) are more specifically defined than the original ones because these revised definitions are modified from the PSM literature more broadly than the original ones. **Moreover, the theoretical groundings to the entire area of PSM capabilities are presented.** Besides the structure of the study, Figure 2 illustrates the contribution of the Author to this study.

1.3. Structure and limitations of the study

It is difficult to distinguish individual capabilities from organizational ones because individual capabilities are part of organizational capabilities. In this study this problem has been acknowledged, and the focus is on the identification of PSM capabilities to create a PSM capability matrix which facilitates the evaluation of PSM capabilities. Figure 2 presents the structure of this study.

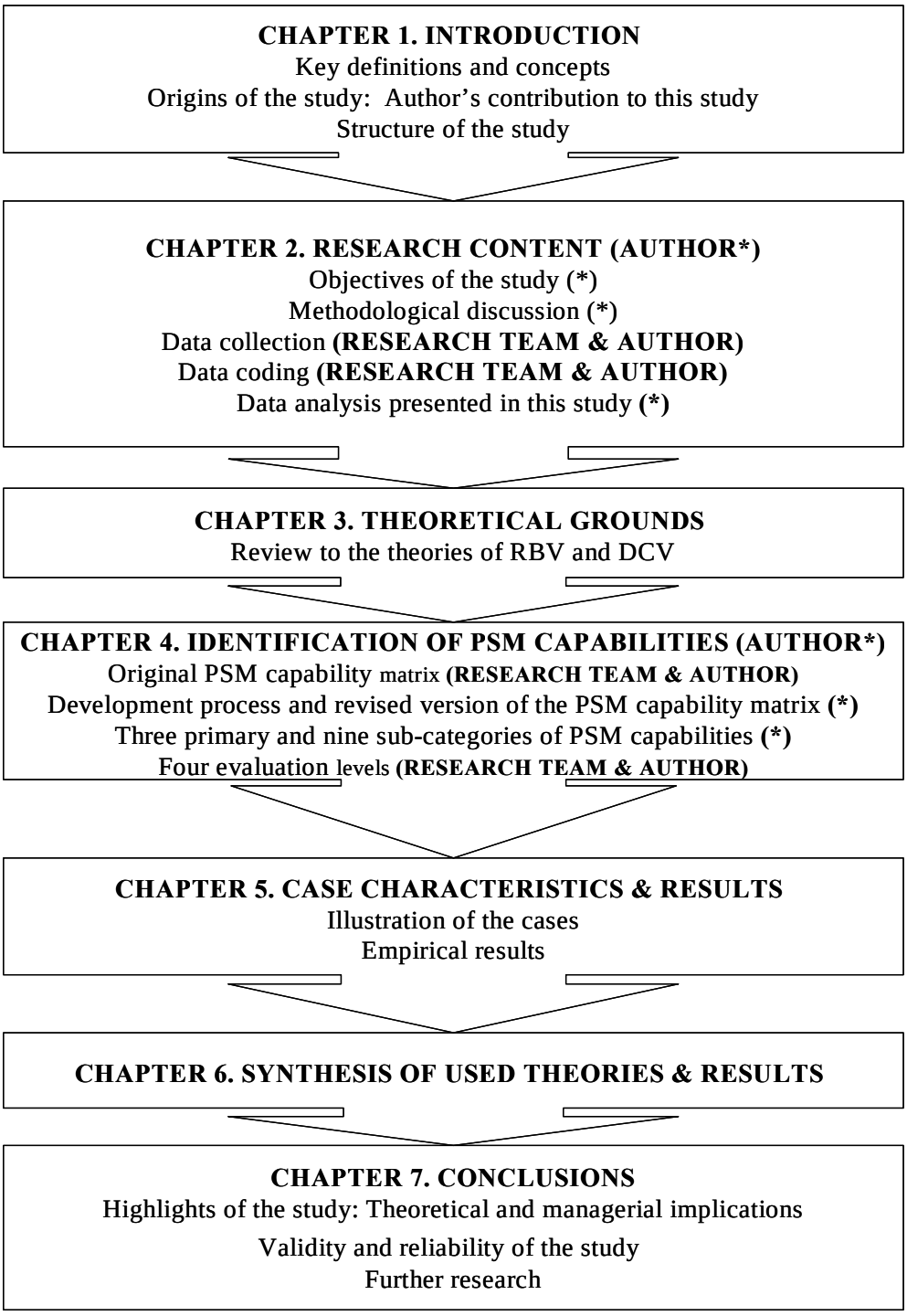

Figure 2. Structure of the study with the contribution of the Author

As shown in Figure 2, Chapter 1 introduces the topic and origins of the study and defines the nature of the concepts purchasing and supply management and capabilities. Furthermore, the study structure and the contribution of the Author are discussed. Chapter 2 presents the research gap and the objectives of this study together with the research methodology. Data collection with data transcriptions (performed by the research assistants only) and data coding (including the IDEAL level definitions of different buyer profiles) were performed by the research team and the Author, whereas the data analysis presented and discussed in this study was conducted by the Author. The resource-based view (RBV) and dynamic capabilities view (DCV) are needed to identify the individual and organizational capabilities. Chapter 3 presents the theoretical foundation and determines the basic views approached in the construction of the PSM capability matrix. The original PSM capability matrix, however, was created by the research team and the Author, but the one presented in this study is re-developed by the Author based on the original one. The matrix (revised version used in this study) is formed of three main areas, namely, strategic, operative and economic capabilities. These capabilities are classified into sub-capabilities (nine different types). The four levels of PSM capabilities are ROOKIE, JUNIOR, SENIOR and EXPERT (the ideal levels were defined by the research team and the Author, but the realized ones were performed by the Author). These issues are discussed in Chapter 4. Chapter 5 provides the empirical results through the data analysis of the cases. The key findings can be illustrated by both the individual and organizational PSM capabilities. These results are synthesized through the lens of both the resource-based and the dynamic capability view in the PSM context to form a synthesis of the study, presented in Chapter 6. Finally, Chapter 7 summarizes the highlights of the study and also points out the theoretical and managerial implications. The final chapter moreover discusses the general validity and reliability issues together with topics for further research.

2. STUDY OBJECTIVES, METHODOLOGY AND THE RESEARCH DESIGN OF THE STUDY

The aim of the study will lead to the choices made about the research strategy. The traditional research classification divides strategies into three classes: experimental, survey and case study research (e.g. Robson, 1995; Tesch, 1991). In the methodological discussion the confrontation between qualitative and quantitative research has been a disputed topic. *Experimental study* and *quantitative survey research* are the traditional terms and methods used in business economics. Before the term *qualitative* was broadly accepted, social scientists called field work and the data collection method as *participant observation* (Tesch, 1991). Qualitative implies issues that are not experimentally investigated or measured in terms of indicators such as quantity, extent or frequency (Denzin & Lincoln, 2003). The basic traditions and the discipline of qualitative research are approached from several views (see e.g. Atkinson & Delamont & Hammersley, 1988; Jacob, 1987 & 1988; Silverman, 1988). One classical categorization is presented by Halfpenny (1979), referring to qualitative research as being soft, flexible, inductive, relativistic and subjective, while quantitative research is the opposite of those attributes. Another classification of the research types is offered by Bryman (1988) and according to him, there should be four significant themes in qualitative research: there is a close relationship between the research and the research object, the research strategy is unstructured, the nature of data is rich and deep and, furthermore, the research creates theory. Jick (1979) mentions that the qualitative and quantitative methods should be viewed as complementary resources rather than rival approaches. Several earlier studies (such as, Denzin, 1970; Diesing, 1971; McCall & Simmons, 1969; Reiss, 1968; Sieber, 1973; Vidich and Shapiro, 1955) also argue that these two methods can contribute to each other (see also Alasuutari, 1999; Bryman, 1988; Dey, 1995; Silverman, 1994). While there is a significant distinction between the quantitative and qualitative research approaches, it might be rational to choose one main research approach (Metsämuuronen, 2006). Qualitative research, however, can be used to gather background information for further research processes or vice versa. The following sections will give some reflections on objectives of this study presenting the methodological discussion and research process with the limitations.

2.1. Research gap of the study

The research field of PSM capabilities is still in its infancy and the literature is riddled with confusing definitions, inconsistencies and contradictions. Empirical studies are still scarce and there is only little evidence to consolidate the findings in a unifying frame. Today's PSM literature is mainly focused on personal profiles (e.g. Axelsson et al., 2005a; Faes et al., 2001; Gammelgaard & Larson, 2001; Giunipero & Pearcy 2000) with the personal characteristics and individual skills of the purchasing personnel. The results of these studies are usually different types of purchasers, buyer profiles or classifications of required skills, competencies and characteristics. However, these definitions and results are individual evaluations comparing purchaser profiles to the purchasing personnel's characteristics or those of the personnel in other functions.

Organizations gain resources, skills and technologies to find out the ultimate mix of capabilities to be a winner in the competitive market. This also requires a control of competitive forces (such as market and competitor analysis) with exploitation of complementary knowledge, for example, about supplier relationships. Resources, competencies and capabilities of PSM include many aspects that are still ignored in some organizations such as collaborative and cross-functional teams, frequent proactivity to the market changes and long-term efficiency in operations and strategic planning. These are all important factors that need to be taken into account in organizations operating in today's business environment. Perhaps the deepest gap is in organizational PSM capabilities due to the overlapping perspective. Over a decade ago, there were discussions about the organizational knowledge and capabilities and how these issues can be transferred and imitated (e.g. Zander & Kogut, 1995 and later many others such as Nonaka & Teece, 2001). Furthermore, numerous studies have already measured and evaluated resources and capabilities very extensively using data related to the topics such as organizational resources (e.g. Kraatz & Zajac, 2001), property rights (e.g. Miller & Shamsie, 1996), reputation (e.g. Kraatz & Zajac, 2001) and market shares (e.g. Levinthal & Myatt, 1994). There are also several studies on organizational and financial performance, but these studies are initially focused on investigating one factor and its influence on performance such as the technical skills of employees (e.g. Carr & Smeltzer, 2000), supplier relationships or strategic

purchasing issues (e.g. Carr & Pearson, 1999; Carr & Smeltzer, 1999). The study of Reinecke, Spiller and Ungerman (2007) illustrated the linkage between financial performance and PSM and the PSM capabilities' significant impact on performance measurement. They also pointed out that there is a strong correlation between the PSM effectiveness and financial performance. Their study also emphasizes the role of talent management. The study of Spiller and Reinecke (2007) further claimed that there are four key drivers to PSM performance: leadership (rf. the role of the purchasing organization to the organization's success and goal for PSM to support overall business goals), position (rf. the role of PSM in the top management team and top tables), influence (rf. the role of the strategic purchasing personnel in the cross-functional teams and leading positions in the teams) and capabilities (rf. the talented and experienced individuals of the purchasing organization and appropriate incentives to develop and retain the key persons). *Indeed, the whole talent factor of PSM matters in many ways of which the individual assets or operative processes are the most cited and investigated ones, whereas the linkage to the research of the economic side or organizational talents of PSM are rather rare. Therefore, this study combines all these three views: strategic, economic and operative ones to form a comprehensive picture of the PSM capabilities required to achieve higher performance for the entire organization.*

Surprisingly, there are no studies available concerning the entire field of PSM (Knight et al., 2005) or the PSM capabilities. So far, there are no significant studies of the organizational capabilities in the field of PSM. This oversight also calls for the role of PSM capabilities to be clarified. The literature review shows that the PSM capabilities need to be studied more comprehensively. This study attempts to reveal and fill this gap by providing the PSM capability matrix that identifies the key PSM capabilities approached from two angles: there are three primary PSM capabilities and nine sub-capabilities and, moreover, the individual and organizational PSM capabilities are identified and evaluated. The former refers to the PSM capability matrix of this study which is based on the strategic and operative PSM capabilities that complement the economic ones, while the latter relates to the evaluation of the PSM capabilities such as the buyer profiles of individual PSM capabilities and the PSM capability map of the organizational ones. All these capabilities are required to define the PSM capability gap. While the organization is aware of the capability gaps, it may renew its PSM processes, strategies, purchasing function (structure) and routines by using mutual

learning and innovation capabilities within the organization. Thus, there is potential for the dynamic capabilities of PSM.

2.2. Purpose and objectives of the study

Truth and wisdom have interested the scientific as well as popular literature since Plato's idea of loving the truth. The basic statements to scientists are "know the truth" and "avoid mistakes" (see the original idea of James, 1896) and, thus, scientists have to gamble to achieve new information concerning the truth, and this cannot be achieved without playing the game to the exclusion of the truth – gambling with the truth (see e.g. Levi, 1967). This gambling is still present today, when organizations are trying to find new sources of competitive advantage. To find new ideas and views, organizations have to deny the current environment to see something really new, something nobody has tried or developed before. This is a difficult challenge and could be impossible without sacrificing a great deal of resources and investments without any guarantee of wanted results. The real question is therefore: what are those limited capabilities today and especially what they really are in the context of PSM? Thus, the aim of this study is to clarify what the PSM capabilities are and how to evaluate those capabilities. Based on this, the objectives of this study can be clarified according to the following research questions (RQ):

RQ 1 What are the key purchasing and supply management capabilities?

The PSM capabilities are approached from two angles. Firstly, the concept of capability is linked to the PSM context through the resource-based and dynamic capabilities views. Secondly, the literature on PSM and strategic management are used to identify the key capabilities. This first research question relates to the **three PSM capabilities – strategic, operative and economic capabilities**. Furthermore, these three PSM capabilities can be classified into **nine different types of sub-capabilities**. The first four ones are related to the strategic capabilities of PSM such as i) the value network and customer management, ii) the business strategy, strategy process and strategic tools, iii) the purchasing strategy with the formulation and related tools and iv) supplier relationships and supply markets. The next three

sub-capabilities are related to the operative capabilities of PSM such as the purchasing policy, purchasing process and related tools as well as supplier selection with the appropriate tools. The economic capabilities of PSM refer to the two sub-capabilities: firstly, cost management and related tools including financial planning and reporting and, secondly, the economic role and performance measurement of PSM. These capabilities are derived from the literature on PSM, strategic management, marketing and economics as presented previously. Therefore, this study presents a developed version of the PSM capability matrix[17].

Having classified the PSM capabilities, the second task is to define the evaluation criteria for the capabilities. These issues are the focus of the second research question.

RQ 2 How can the key purchasing and supply management capabilities be evaluated?

The PSM capabilities can be evaluated into **four stages: i) rookie, ii) junior, iii) senior and iv) expert[18]**. There is also a need to identify the key evaluation criteria[19] to specify the PSM capabilities. The PSM capabilities can be summarized into a PSM capability map that can be used to evaluate the requirements and needs of PSM. Thus, organizations may find a gap between their current state and their potential goals and needs of the PSM capabilities. The results of the empirical cases are classified into three classes of professional buyers and four non-professional buyers. The ideal levels are defined and these results are compared to the ideal levels to identify the gap between the current and wanted levels, namely, the PSM capability gap. Filling this gap provides potential for mutual learning and, thus, it is strongly connected to the dynamic capability view (DCV). According to the definition of Nonaka and Teece (2001, p. 291), *"managing for knowledge means creating a thriving working and learning environment that fosters the continuous creation, aggregation, use and reuse of both personal and organizational knowledge in use the pursuit of new business value."* Therefore, the organization must adopt a new way of thinking to maximize the benefits of the capabilities

[17] Presented in Chapter 4.
[18] The original terms were introduced by Axelsson et al. (2005b).
[19] These key evaluation criteria are defined by the Author by partially adopting the original ones related to the original PSM capability matrix, but the ones that are used in this study are more broadly and deeply derived from the literature on PSM and related as mentioned above. While the matrix is a revised version, the key evaluation criteria should be updated as well. These criteria are extensively presented in Chapter 4.

and resources associated with PSM. In this study, the dynamic capabilities of PSM are related to the innovation capabilities, mutual learning and renewal of resources with regard to issues such as storage resource management, customer relationship management, value networks, process development, human resource management, innovation capabilities and R&D and partially operative capabilities (i.e. limited to the purchasing and supplier selection processes with the development, mutual learning and innovations within the process and organization).

The theoretical implications of this study can be summarized into four topics: i) the revised PSM capability matrix including the PSM sub-capabilities, ii) the detailed evaluation criteria, iii) buyer profiles and iv) PSM capability gaps. The managerial implications of this study can be summed up into i) the evaluation of the PSM capabilities through the matrix, ii) identification of the PSM capability gaps by providing individual and organizational maps of the gaps, iii) activities to fill the gaps, and finally iv) enhancing the PSM performance and recognizing the linkage to competitive advantage and dynamic capabilities. The next chapter focuses on the methodological discussion on these topics, how the questions are approached in this study and how the results are achieved.

2.3. Methodological discussion on qualitative research: the case study and the constructive approach

Case study refers to specific cases that can be varied in many ways (Stake, 2003). Thus, it is versatile empirical research exploring specific cases in a real life context with extensive data on a single case or a cluster of cases that are collected in various ways (Yin, 1984; Yin, 1994). Data is compiled using multiple methods such as interviews, documents and observations (see e.g. Denzin & Lincoln, 2000; Eisenhardt, 1989; Syrjälä, 1994). Stake (2003) pointed out that the case study emphasizes the question of learning from a single case and, moreover, it forms a deeper understanding of the case rather than argues for generalization.

Usually the case study method is approached as one type of research, even if it includes several sub-methods. The constructive research approach is one method to implement the case study. Neilimo and Näsi (1980) present four classical research methods, namely, conceptual,

decision-oriented, action-oriented and nomothetical methods, even though later on several other articles have approached this topic (see e.g. Lukka, 1986 & 1991; Näsi, 1983; Näsi & Saarikorpi, 1983). To extend this typology, the constructive method is empirical and normative and produces an innovative and theoretically argued solution to some practical and relevant problem. This solution is actually tested in practice and the result can be attested. For instance, Lukka (2001) argues that the constructive research approach produces innovative constructions, which intend to solve real-world problems and, therefore, to make a contribution to the theory of applied field studies.

This is a hybrid research that combines both the constructive and case study approaches which are needed to complement each other. While constructive research is focused on developing a construct (the PSM capability matrix of this study), the case study is used as an umbrella to describe the data collection method as well as the analysis of this study.

2.3.1. Using the constructive research method to create the construct – the PSM capability matrix

The heart of the constructive approach is the new construction, such as a model, plan or an organizational structure. The construction is invented and developed, not discovered. This new, developed construction (solution to a real-world problem) differs from anything else that already exists (Kasanen & Lukka & Siitonen, 1991). The theoretical base of the construction refers to prior theory in the field of PSM, the resource-based view (RBV) and the dynamic capabilities view (DCV). The practical relevance of the problem and its solution are approached by the actual needs of the business environment due to the lack of the PSM literature as well as public cases and solutions about PSM capabilities. The focus of this study is the construction – the developed matrix presented in this study. Thus, the theoretical contribution of this study lies on the filling of the research gap discussed previously. This constructive research approach is related to the objectives of this study, but mainly it refers to the first research question of *"what the key PSM capabilities are,"* while the second research question of *"how the key PSM capabilities can be evaluated"* is related to both the constructive research approach such as the evaluation criteria of the matrix and the case study

approach referring to the buyer profiles and the PSM capability gap derived from the case organizations.

The practical implementation of this matrix is tested in two case organizations on different organizational levels. The construct of this study offers a new idea what the current literature does not acknowledge – the entire "big picture" of PSM capabilities. This matrix provides the solution to the identification and evaluation of PSM capabilities on both the individual and organizational levels. The market test is implemented in the case studies, even though a wider test is the issue of further research. The synthesis of this study reflects the findings against prior literature to fill the research gap. The constructive research approach (bold print from Lukka, 2001) and its application in this study are summarized as follows:

1) **Focuses on real-world problems that are relevant to be solved in practice.**
   Organizations have difficulties to identify their PSM capabilities. They do not have the tools or methods, and this study fills this gap and offers a framework to the identification and evaluation of the key PSM capabilities.
2) **Produces a construction, which should solve the initial real-world problem.**
   This study presents the PSM capability matrix to facilitate the decision-making and the evaluation of PSM capabilities to reveal the gap between the current and ideal levels of PSM capabilities. However, external professionals are required to conduct the evaluation process as described in this study. The next step would be a self-evaluation tool that could be completed inside the organization and only the final results would be evaluated by an authorized source. This is one of the topics for further research as discussed broadly in Chapter 7.
3) **Includes an attempt to implement the developed construction as well as to test its practical applicability.**
   The data was collected from the many levels of purchasing in the case organizations, and it was the basis for the construction of this study. *This study does not attempt to prove the excellence of the matrix; rather, this study is focused on the practical application to evaluate if the matrix is useful in the real business world and how it can be used (and developed) in the field*.

4) **Implicates a very close involvement and collaboration between the researcher and the real-world practitioners, in which experiential learning is expected to exist.**
   In this study this involvement refers to the communication between the Author and the key persons in the case organizations during the research process. Key persons participated by reading the data analysis and synthesis of this study after its completion. They also accepted the data that is presented in this study. The role of the key persons in the case organizations was significant especially in the data collection process which was conducted in the original PSM research project presented previously.
5) **Is very carefully linked to prior theoretical knowledge.**
   The theoretical frame of this study is derived purely from the dynamic capability view (that is linked to the resource-based view) and the literature on PSM and strategic management.
6) **Pays attention especially to reflecting the empirical findings back to the theory.**
   This assumption was not covered in this study, and in the future studies this revised matrix could be re-developed once again (e.g. through an extensive field test) by using the empirical findings of this study, and thus, develop the theoretical assumptions as well.

In summary, the constructive research approach and the case study method are needed and applied in this study. Thus, these both methods are equally significant in this study, even though the constructive research process is presented firstly referring to the formulation and development of the PSM capability matrix, and then the case study is used in the empirical data collection and analysis. In other words, data collection and analysis as well as the empirical results proceed through the case study process while the constructive approach focuses on the creation of the PSM capability matrix. *It should be emphasized that the matrix is a framework to facilitate the identification and evaluation of PSM capabilities and, thus, to define the potential PSM capability gaps.* When the gaps are recognized, they can be filled, therefore, enhancing the PSM capabilities. Then, the process can be repeated to explore, if the gaps have truly been filled, and to find new gaps. *This is a continuous development cycle to achieve higher performance with PSM and, eventually, to increase the profits and the performance of the organization.*

2.3.2. Using the case study method in exploring the evaluation of PSM capabilities and designing the research process of the study

Case study research typically focuses on the current conditions using historical data primarily to understand the background of such a phenomenon or to verify the information gathered about the ongoing situation (McCutcheon & Meredith, 1993). Case study is a complex phenomenon and even the definition of what the *case* really is can be difficult: is the case itself a case study or are the results of the research process the case study? The answer is both – the questionnaire of the case as well as the results after the implementation of the questionnaire – even though the latter as a final report is widely called as the case study (Stake, 2003). Here, the case study approach refers to the empirical research process, namely, the collection of empirical data from the case organizations (from the original data of the PSM project), data analysis and synthesis.

There are three types of case studies (Stake, 2003): i) *intrinsic* case study focuses on the case itself to have a deeper understanding of the case; ii) *instrumental* case study mainly explores the case to form a picture of the issue while the actual case has a supportive role; and iii) *collective* case study emphasizes several cases in order to investigate a phenomenon, population or general circumstances. The two latter types require the researcher to choose the cases before a formal study can begin (Stake, 2003). Based on this, this study is not a pure example of these types, but there are characteristics from the instrumental case study, because the cases are investigated to identify the key PSM capabilities and, thus, for the comprehensive picture of such phenomenon. The object of research can be exploration, explanation, description or prediction (see e.g. Ellram, 1996; Hirsjärvi et al., 2002; Marshall & Rossman, 1995; Robson, 1995). According to its objective, this study is mainly exploration, the purpose of which is to find new views or a phenomenon to create a hypothesis or clarify a less known phenomenon and, thus, the research strategy is mainly that of a qualitative case study. A poor or lacking knowledge base of the research subject also supports the role of exploration referring to the oversight in identifying organizational PSM capabilities. According to Yin (1994), the explorative and explanative case studies form the research questions based on i) *how* and *why* contemporary events exist and happen, while ii)

what refers to the descriptive or predictive case studies[20]. This study has both exploratory and descriptive views. The former refers to the second research question of how the PSM capabilities can be evaluated and the latter refers to the first research question of what the key PSM capabilities are. Therefore, the aim of this study is to produce both explorative, new, unknown or unstructured, and descriptive information. Explorative information refers mainly to the developed PSM capability matrix, whereas, descriptive information refers to the evaluation of PSM capabilities illustrated through the buyer profiles, the PSM capability map and gap.

2.3.3. Selecting case companies

The case companies were from the food industry. There were three primary reasons to select the food industry as the pilot environment for this matrix. First of all there was lack of research in the context of PSM, secondly, the food industry offered many branches that were very interesting to the academics and further, organizations in this field were networked in many other fields in Finland facilitating high-technology fields (see e.g. study of Brännback & Wiklund, 2001). Therefore, it could be argued that this study would be of interest both at the research forums and among business managers. Of additional value was also the issue that the food industry is familiar to the Finnish people generally. Thirdly, there are big global and local issues ongoing in the field such as genetic manipulation, bio-energy and political issues (rf. EU legislation about farming subsidies) that will strongly impact this industry; but these topics will have bigger effects that may imply the increasing costs of raw materials prices and issues that are probably not yet even recognized. For instance, global and local natural disasters may have an impact on the stock prices of grain and corn. If such a disaster struck merely Finland, the impacts would not be as dramatic as if a similar situation occurred in the granaries of the world such as the USA, Canada, Australia or larger part of Europe; then there would be enormous peaks in the global prices. The case organizations are large and they have a significant status in the Finnish food industry with their wide networks within the sector and between the companies. Thus, they represent a wide part of this particular branch that has been under investigation. Therefore, the organizations had a very positive attitude to PSM

[20] See also Ellram (1996) who summarizes the different question types and the objective of the study.

research and they were very interested in participating the different parts of the research project.[21]

2.4. Research process of the study

The research process of this study should be presented in order to understand the findings. The research design should also be illustrated to provide a comprehensive picture of the research assignments and how the study is conducted. Followed in this study, the qualitative research process and its nature have an impact on the research planning and implementation. According to Alasuutari (1999), qualitative research is like reading the signs and actively producing new leads, and the conclusions are drawn from those clues. He also argues that qualitative analysis is based on two steps: First, simplifying the evidence referring to that data is considered from specific theoretical and methodological views, when focus is on the theoretical framework as well as on which data is relevant considering the research paradigms. And second, solving the problem refers to analyzing the findings based on the clues and evidence. The theoretical substance is significant contributing to the different paths of results. These two steps are always connected with each other and difficult or impossible to separate in practice (see also Metsämuuronen, 2006). In the qualitative analysis data is evaluated as an entity or a case (Alasuutari, 1999; Eskola & Suoranta, 1998; Sulkunen & Kekäläinen, 1992). Johnson and Harris (2002)[22] noted that qualitative data analysis requires careful coding to conceptualize the collected data. Defining and classifying the collected data, coding also helps to gain new views on the material (Charmaz, 2000). Coding (see Partington, 2002 to find more examples of coding) is, then, associated with the cutting and pasting of notes with other items that fit under a certain heading. This refers to the concepts that are likely to be extended codes (Charmaz, 2000). Miles (1979) also specifies a similar process in the qualitative data collection and analysis; the running notes should be converted into write-ups and, then, the process of qualitative data contains the data classification, analysis and conceptualization. This study proceeds with the basic idea of the case study research process referring particularly to the data collection and analysis of the study presented in Figure 3.

[21] A broader presentation of this branch and the case companies is provided in Chapter 4 of the empirical results.
[22] See for instance Bryman and Burgess (1994) who use a similar approach to their qualitative data analysis.

Traditionally there has been a friendly debate about recorded tapes as the only source of documentation (see e.g. Hirsjärvi & Hurme, 1991) and complementary tools such as field notes written on paper (Grönfors, 1982). Four major methods used in qualitative research are observation, text and documents, interviews and finally recording and transcribing (Silverman, 2001). Many case studies combine data collection methods such as interviews, questionnaires, archives and observations to find evidence which may be qualitative, quantitative or both[23] (Eisenhardt, 1989). This study uses data collected in semi-structured interviews in the PSM research project (the empirical results based on the revised interview data) and the pre-questionnaire (defining the buyer profiles of the interviewees). This study applies the recordings[24] and transcriptions as the primary source of data documentation in the actual interview situation.

[23] See Ellram (1996) who summarizes the characteristics of qualitative data collection techniques, such as direct and indirect observation and interviews.

[24] See for instance Grönfors (1982) to view a list of the advantages (such as literal data and possibility to repeat again and again) and problems (such as technical problems, taking time to transcribe the tape and effects on the interviewee) with using a recorder in the interview situation.

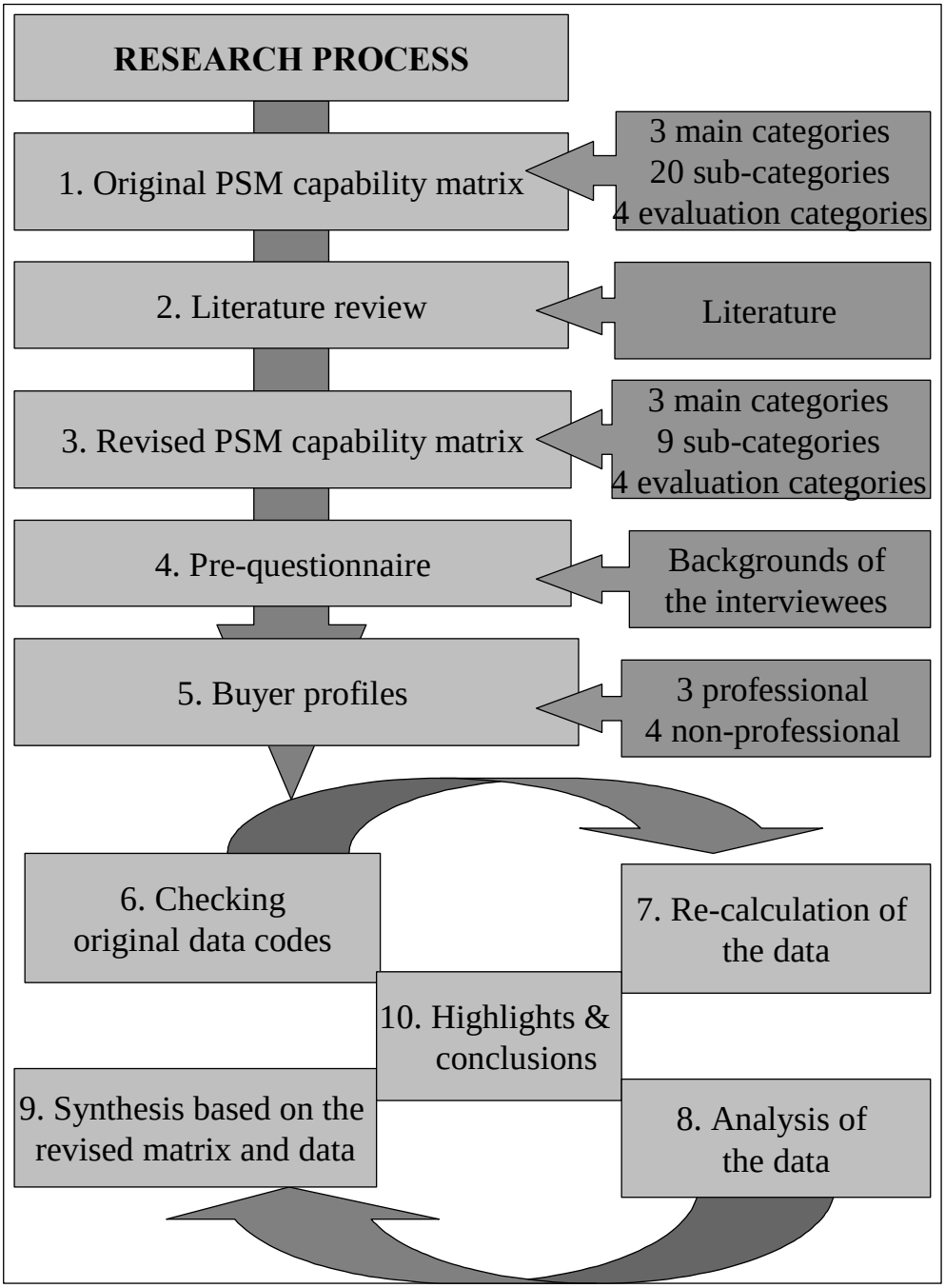

Figure 3. The research process of this study

Figure 3 shows that the beginning of this research process is based on the original PSM capability matrix created in the PSM research project (stage 1). The next step is the literature review to define the theoretical foundation for the matrix development and to identify the research gap (stage 2). The revised version of the PSM capability matrix is then developed[25] (stage 3). Data may come from primary sources such as interviews or secondary sources such as documents or records (McCutcheon & Meredith, 1993). The purpose of the pre-questionnaire was to explore basic information about the interviewees such as their individual characteristics and backgrounds. This study exploits the data collected from the pre-questionnaire and re-defines the buyer profiles on the basis of the interviewees' tasks and roles in the organization (stages 4 and 5). Thus, this study utilizes similar definitions as the IDEAL buyer profiles (three professional and four non-professional ones), but defines the new REALIZED buyer profiles. Then, the original data coding was confirmed (stage 6). Coding of the qualitative data is strongly related to the classification of data on specific codes. The investigator produces observations by analyzing the written document and, thus, the data can be set to an appropriate category. Here, this refers to the coding of interviewees as illustrated in Appendix 4 based on the different buyer profiles presented in the empirical part[26]. These profiles were used in categorizing IDEAL level capabilities into each profile and, thus, the PSM capability gap was formed as the result of comparison between the results (realized capability level) and the ideal one. This study uses the interviews as the primary source of data, and organization documents, pre-questionnaire and other available documents relating to the case organizations are the secondary source. The next stages were the utilization and re-calculation of the interview data (stage 7) and the data analysis based on the revised matrix (stage 8). Qualitative data analysis combines analysis and synthesis in which the collected data will be divided into conceptual items, and then these parts will be re-organized to form the final conclusions (Grönfors, 1982). Finally, the synthesis was conducted on the basis of the empirical findings and theoretical implications (stage 9) and the highlights of the study were summarized and conclusions drawn (stage 10).

As a summary, the contribution of this study is related to the topics of i) the revised PSM capability matrix including the PSM sub-capabilities, ii) the detailed evaluation criteria, iii)

[25] The development process of the revised matrix is presented in Chapter 4 with a more profound discussion of the developed matrix itself.
[26] See Chapter 4.2. about the classification of buyers into different buyer profiles.

buyer profiles and iv) PSM capability gaps. The first two topics, the revised PSM capability matrix with the sub-capabilities as well as the evaluation criteria, are based on the original matrix which has been modified according to the literature findings. The buyer profiles refer to the tasks and position of the buyer in the organization as to what kinds of tasks a person is performing and what the buyer's position is in the organization structure (including the decision-making, responsibilities and liabilities in the organization). The buyers are classified into different categories on the basis of the tasks or position they are performing related to PSM. Further, the different categories have their own requirement levels to these issues as the IDEAL level is the highest required level, whereas the REALIZED level is the current situation. The IDEAL level is stated as the original PSM project team on the basis of the literature findings (not impacted by the cases, but using the literature as the source of data). The REALIZED levels are the results of the empirical findings of the cases (using interviews as the primary source of data, but complemented with the data from the pre-questionnaire referring to the tasks or position of the interviewee in the case organization). The fourth contribution, the PSM capability gap, is the result of these two: comparing the IDEAL level to the REALIZED level and thus, finding out the performance gap of the PSM capabilities. This last step is then using both theoretical and empirical data to illustrate the current situation of PSM capabilities in the organization.

2.5. Evaluating research validity, reliability and generalization of the study

Qualitative data and its analysis are very fruitful, but troublesome to implement. Therefore some criteria to determine the quality of qualitative data is naturally required, such as validity and reliability.

2.5.1. Validity

An overview of the concept of validity to measure "the right things" reveals several rules and guidelines for the qualitative analysis (see e.g. Metsämuuronen, 2001; Miles, 1976; Sieber, 1973). Validity of the research signifies the entity, where the results correspond to the objects of the study (Varto, 1992). It has been argued that no single or collection of methods can be the ultimate source of authentic truth, whereas the role of the interpretation process has also received attention (Lincoln & Guba, 2003). Olkkonen (1993) notes that the validity also refers to the theoretical concepts as well as the definitions used in the study.

As a combination of multiple methods, empirical materials and observations in a single study (Denzin & Lincoln, 1998), triangulation[27] is also used to increase the validity of this research. Janesick (1998) has also categorized triangulation into five different categories of which first four ones are based on Denzin's work (1978), and the last category is initially presented by Janesick. These categories are (Janesick, 1998; Janesick, 2003): i) **data triangulation** in the use of multiple sources of data, ii) **investigator triangulation** (multi-investigator) in the use of multiple researchers and investigators, iii) **theory triangulation** (multiple theory) in the use of multiple (competing) theories in data evaluation, iv) **methodological triangulation** in the use of multiple methods to study a single problem and v) **interdisciplinary triangulation**[28] in the use of multiple disciplines such as co-written journals, letters, essays and other written works. Recently, interdisciplinary triangulation has been attached to the concept of crystallization presented by Richardson (1994) that provides a deeper understanding by combining different angles, changes and lights to view a comprehensive picture of the topic. Reflections and three-dimensional visions could be seen when watching the sun through a crystal. This sparkling is a significant part of a deeper analysis of the study because different investigators may have complementary knowledge and views of the subject. They may see this research topic from a different angle than others and, thus, this may offer a fertile ground and synergy to the study. This crystallization was also acknowledged by Janesick (2003). Figure 4 presents this classification applied in the study.

[27] Several other terms have also been used to refer to this method, e.g. "multiple operationalism" (Webb et al., 1966), "mixed strategies" (Douglas, 1976) and "multiple strategies" (Burgess, 1982 and 1984), but Campbell and Fiske (1959) may be the most often cited in the literature.

[28] Janesick (1994) defined the term *interdisciplinary triangulation* in the beginning of the 1990s and she reconsidered it at the new millennium.

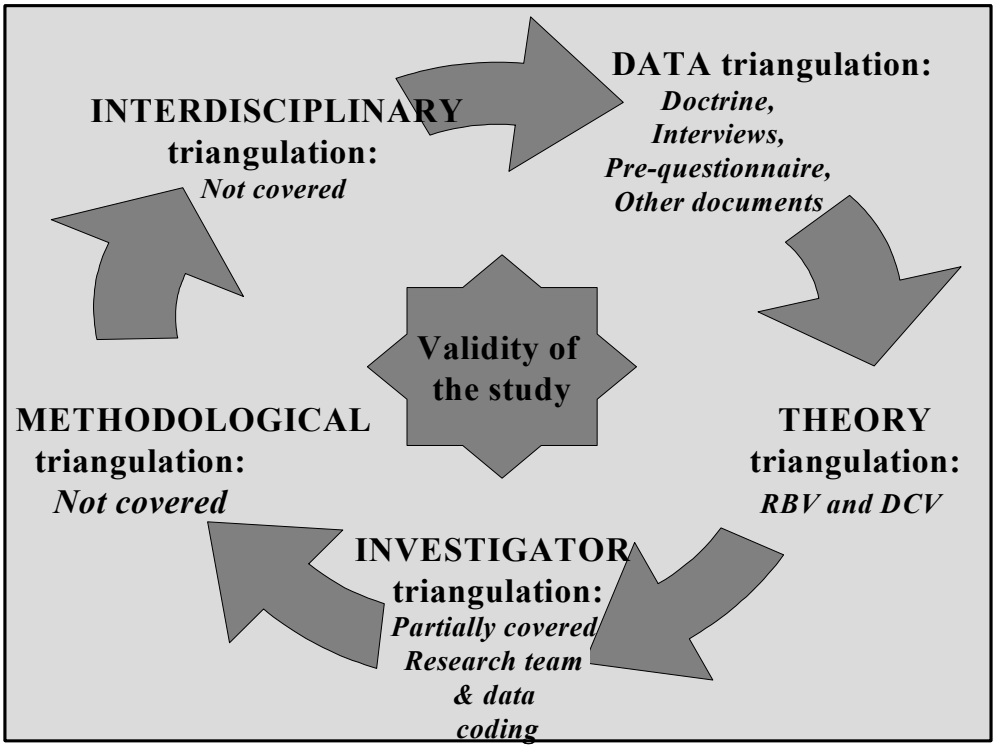

Figure 4. Triangulation supports the validity of the study

In this study as presented in Figure 4, data triangulation relies on the interviews and the pre-questionnaire conducted with the case organizations as well as the doctrine, other scientific and public data with internal documents from the case organizations. The different types of data are used to approach the research subject or phenomenon from different angels to find support from several data sources; for instance, the buyer profiles are evaluated against the data collected from the pre-questionnaire and supported with the literature and the interviews. Even though this is a study conducted by one author, the data has been collected from the PSM research project and the original definitions of the IDEAL levels of buyer profiles. Theory triangulation exists because two theoretical approaches were used, namely the resource-based and the dynamic capability views, to identify the capabilities in general. This general identification of capabilities is supplemented by the literature on PSM and strategic management to specify the key PSM capabilities. Investigator triangulation, however, refers

to the coding of the interviewees (see Appendix 4 about the list of interviewee codes) which was firstly performed individually by the research team members (the Author, Lintukangas and Vesterinen) and, thus, the codes were summarized and discussed together with the team to form the final codes. Methodological triangulation was not covered even though there are two different methods, the constructive and case study: These methods are used in different parts of the study to achieve different goals, when the pure idea of methodological triangulation is to use several methods to solve one single problem or goal, and interdisciplinary triangulation was not covered in this study either.

2.5.2. Reliability

Reliability refers to the replication and accuracy of measurement results (Metsämuuronen, 2001). It is mainly connected to the statistical research method to define what the probability is (reliability) that the concluded result is valid and also that the same result will be achieved if the study will be repeated (Olkkonen, 1993). In qualitative research, validity may be sacrificed for reliability (Johnson & Harris, 2002). Above all, reliability may be seen as it tells about the stage of the research process and, thus, the high or low reliability in a numerical assessment is not the most significant issue but its fluctuation in the research process and to notice the change to find out the source and to evaluate the reasons specifically (Leiman & Toivonen, 1991). Reliability refers to the operations of a study such as the data collection procedures that can be repeated with the same results (Yin, 1984). According to Jick (1979), replication is extremely difficult and problematic in qualitative methods, and, especially, if the research is not clearly focused theoretically or conceptually, no method will produce satisfactory results. This may be the problem in many case studies, and even replication cannot ensure that the results are independent of the researcher because the used data is analyzed through the investigator's views and cognizance. Indeed, reliability in this study is mainly based on the replication of the construct, the PSM capability matrix, and furthermore, the empirical results may be replicated in similar case studies.

2.5.3. General assumptions of the study

Generalization can be approached from different directions. According to Eskola and Suoranta (1998), qualitative research does not aim for statistical generalizations, but instead, it pursues to describe the occasions, to understand a specific action or to give an explanation or theoretical interpretation of the examined phenomenon. Sulkunen (1990) argues that those generalizations cannot be done from the evidence directly, but from the conclusions and the interpretations based on the evidence and, thus, the criterion to the generalization is rational data collection. The research process and its different stages must be written down to prove the scientific validity and, therefore, the liability of the research process and the valid conclusions are significant in the assessment of the qualitative analysis (see e.g. Ehrnrooth, 1990; Salmi & Järvenpää, 2000; Syrjälä et al., 1996; Varto, 1992). Mäkelä (1990) argues for such a clear description of the data analysis that the argumentation of the researcher can be followed to accept or disagree those interpretations. The replication of the analysis refers to the principles of classification and interpretation, which are stated so clearly that another researcher can apply the principles to conclude the same results (McKinnon, 1988). Eskola and Suoranta (1998) mention that in qualitative research, the limitation of the data is based on the theoretical scope. They also emphasize that a comprehensive presentation of the case study contains features of generalization such as how widely the case study is described or conceptualized. Denzin and Lincoln (2000) use terms such as credibility, transferability, dependability and confirmability to replace the usual criteria of validity, reliability and objectivity. Kvale (1989) has also outlined similar conclusions and mentions that the validity is less a matter of specific techniques and definitions, than of lines of questioning and search of relevant contexts for inquiries into the truth. In this study such issues refers to the coding and conceptualization (empirical data and evidence) presented above as well as theoretical data collection from the current literature. Especially the construct can be generalized to different types of organizations and empirical results can be reflected against other contexts.

3. THEORIES BEYOND THE PSM CAPABILITIES – THEORETICAL DISCUSSIONS

There has been a long controversy in the economics literature about why organizations exist and how they differ from each other in the market. The heart of business and strategy management is the creation, integration, management and deployment of a valuable and a unique resource combination (Lippman & Rumelt, 2003). Already the earliest studies (see e.g. Coase, 1937; Richardson, 1972; Williamson, 1975) have noticed that no organization can create all the resources needed to prosper and grow. Thus, complementary resources are required to exploit new business opportunities. The resource-based view (RBV) reaches back to the works of Penrose (1959)[29] and Selznick (1957)[30]. Penrose (1959) maintains that there may be a considerable value associated with a specialized resource base[31]. Thus, organizational development is an evolutionary and a cumulative process of "resource learning" (Mahoney, 1995), in which increased knowledge of the organization's resources both helps create options for further expansion and increases absorptive capacity (Cohen & Levinthal, 1990). The organization's knowledge determines what the organization can do and how. But what really is a unique organization or may distinguish organizations from others? Knowledge-based resources are related to the organization's skills such as technical and creative expertise to develop competitive products and market them successfully (Miller & Shamsie, 1996). Furthermore, collaborative and integrative skills are needed, referring to the team working and co-learning (e.g. Hall, 1993). Amit and Schoemaker (1993) argue for the organization's technical know-how, design, financial resources, engineering capability and organization specific resources and capabilities that explain the organization's performance. In recent literature, this latter point has become known as the dynamic capabilities view. Teece and Pisano (1998) pointed out that dynamic capabilities are a set of capabilities that will create new products and processes and respond to changing market situations. The traditional view of the dynamic capabilities definition is based on the assumption that there are routines to learn more routines (Teece & Pisano, 1998) as the potential for new learning or even innovation opportunities, while recent studies have

[29] See for further information about Edith Penrose's legacy to the RBV, for instance, in Lockett (2005) and her contribution to economics and strategy (e.g. Thompson & Wright, 2005; Pitelis, 2005).
[30] See also e.g. Mahoney and Pandian (1992).
[31] Rubin (1973) rationally reconstructed Penrose's work in terms of finding the best solution to the dynamic optimization problem of balancing the development of new resources (using existing resources) and the use of existing resources directly in production.

emphasized the specific organizational and strategic processes to manipulate the organization's resource base (Eisenhardt & Martin, 2000; Foss & Robertson, 2000). This chapter presents the fundamental assumptions of the resource-based view and the dynamic capabilities view as well as how these views are applied in this study. *The resource-based view is related to the first research question of identifying the PSM capabilities, whereas the dynamic capability view refers to the second research question of evaluating the capabilities.*

3.1. Resource-based view

Since the discussions of the early 1980s, the concept of resources has been evolved; from the definition of resources (Wernerfelt, 1984), through the resource classification (see e.g. Foss, 1996; Mahoney, 1995; Miller & Shamsie, 1996; Shulze, 1994) and ending to the strategic viewpoints of resources (Barney, 1991) pointing out the nature of the static and dynamic resources and capabilities. The RBV has emerged to the forefront in the field of strategic management with the works of Teece (1980), Rumelt (1987), Wernerfelt (1984), Barney (1986), Conner (1991) and Amit and Schoemaker (1993). Traditionally, the resource-based view suggests that the organization's competitive advantage can be derived from its access to unique resources that are valuable, rare and hard to imitate[32] (Barney, 1991), and particularly to tacit knowledge resources (see e.g. Teece & Pisano, 1994). Since the first studies (see e.g. Schulze, 1994; Mahoney, 1995; Foss, 1996) the characteristics of the RBV have been a sore point with the academics, and recently a fertile debate on the RBV has also been seen. Arguments for and against the key elements of the RBV have emerged concluding that the RBV is far from being homogeneous. For instance, Hoopes, Madsen & Walker (2003) argue that resource heterogeneity does not explain the differences on performance levels. While most of the studies are applied in the empirical context, a number of articles have begun to question the theoretical underpinnings of the RBV, as well as its usefulness for strategic management research (e.g. Barney, 2001; Powell, 2001; Priem & Butler, 2001a). Similarly, there is a need for large sample studies to find the organizations that are systematically high performers from the less successful ones and, thus, the organizations with the potential for competitive advantage can

[32] This is usually called as the VRIN typology of resources (Valuable, Rare, Inimitable and Non-substitutable) according to Barney (1991, pp. 105-106).

be clearly distinguished from the ones without such potential (Rouse & Daellenbach, 2002). Priem and Butler (2001a) argue that it is not sufficiently clear how resources contribute to the organization-level value creation and therefore operative issues are difficult to form. Even recent studies, such as the work of Sheehan and Foss (2007), have also pointed out that it has become less transparent how resources contribute to value creation which is still outside the context of the RBV. No wonder that Barney (2001) disagrees with most of these arguments and presents his own, while he also recognizes the study of Priem and Butler (2001a)[33] which has opened more discussion and debate about the creation, development and future of RBV models.

The key ideas of the RBV are that successful organizations have heterogeneous collections of resources that allow them to implement different strategies, which provide different returns. Resources should be difficult to create, acquire, substitute or imitate. Barney (1991) pointed out that not only the valuable, rare and inimitable resources to facilitate superior performance, but also the appropriate organization can take advantage of the resources[34]. These strategies and returns are sustainable, if they are prohibitively costly to imitate, and this is one aspect of the purview of RBV (Barney 1991; Peteraf, 1993). Unusual returns (particularly competitive advantage) cannot be obtained by imitation (Miller & Shamsie, 1996; Teece & Pisano, 1998); rather, they should be obtained by unique innovations that may lead to superior returns until the market changes will devalue the advantage. Generally, the RBV is focused on the creation, maintenance and renewal of competitive advantage in terms of the resource side of organizations. The resource-based analysis of sustained competitive advantage is based on the four basic empirical generalizations (Foss & Robertson, 2000): i) there are systematic differences between the organizations in how they control their resources that are necessary

[33] See also Priem & Butler (2001b) who present a mathematical representation to the statement of tautology issue and furthermore, they argue that resource value is determined outside the RBV. In other words Priem & Butler (ibid.) pointed out that the RBV contains sustainability but not the approach of competitive advantage (i.e. value creation).

[34] Based on these arguments, the fundamentals of the resource-based analysis to gain sustained competitive advantage are four basic criteria (Peteraf, 1993): 1) *heterogeneity*, there cannot be any differences in the rents firms earn, in fact, there cannot be any rents at all; 2) *ex ante limits to competition*, resources have to be acquired at a price below their discounted net present value in order to yield rents, otherwise future rents will be fully absorbed in the price paid for the resource (e.g. Demsetz, 1973; Barney, 1986; Rumelt, 1987); 3) *ex post limits to competition,* resources should be difficult or impossible for competitors to imitate or substitute rent-yielding resources; and 4) *imperfect mobility,* resources should be relatively specific to the firm, otherwise the superior bargaining position that is obtained from not being tied to a firm can be utilized by the resource to appropriate the rent that the resource helps create.

for implementing strategies; ii) these differences are relatively stable, iii) the differences in the organization's resources cause performance differences; and finally iv) the organization seeks to increase its economic performance.

The economics orientated version (or equilibrium or Mark I) is emphasized by Demsetz (1974), Barney (1991)[35] and Peteraf (1993) who rely on the economic theory to define the circumstances that must be obtained in order for resources to yield rents in equilibrium, while the process-orientated version (evolutionary or Mark II) is pointed out for instance by Penrose (1959), Prahalad and Hamel (1990), Teece and Pisano (1994) and recently many others. The former may also be related to the "resource-picking" approach and the latter to the "capability building" approach (Makadok, 2001, p. 388). The evolutionary or process-oriented approach of the RBV emphasizes the role of routines and intangible resources with technological evolution and competition rather than diversification of all the resources (cf. equilibrium oriented approach) as the primary source of competitive advantage (Foss & Knudsen & Montgomery, 1996). This study agrees with these statements of process orientation without any disparagement of economics orientation viewpoints. The dynamic resource-based view is presented by Helfat and Peteraf (2003), and they emphasize the capability lifecycle to explain the fundamental sources of the organization's heterogeneity and, thus, makes the RBV dynamic by understanding the evolution of capabilities over time (cf. path-dependency of DCV). In the same context, they also pointed out that products and resources are two sides of the same coin which was the basic idea of Wernerfelt (1984) and, thus, as products have their development paths and patterns (product lifecycles[36]), the capability lifecycles illustrate recognizable stages such as growth, maturity and decline (Helfat & Peteraf, 2003). The resource-based view reveals that organizations have the resources that i) only maintain resource-based knowledge, ii) adapt and modify their resource base and iii) create new resources and capabilities (Ståhle et al., 2002). Furthermore, the capabilities perspective specifies three broad classes of capabilities (Foss & Robertson, 2000): i) capabilities in relation to the conduct of existing activities; ii) capabilities in relation to the growth of those given activities through investments in productive capability and market position; and iii)

[35] See also Priem & Butler (2001a) who summarize the definitions of the RBV according to Barney's (1991) conceptual work.

[36] See for instance Grant (2002) who presents the path of product life cycles or Lysons & Farrington et al. (2006) about the product life cycle and its analysis in the field of PSM.

capabilities in relation to the development of all the organization's activities, including the introduction of new products and processes and entry into new market areas and into relationships with other organizations though alliances, joint ventures and acquisitions. The latter refers to the dynamic capabilities view.

3.2. Dynamic capabilities view

In a world where markets, technologies, players and legislation change rapidly, continuous creation, transfer and utilization of innovative knowledge is significant. The importance of the organization's ability to process and manage such knowledge to enhance value to the customer has increased. This leads to the question of the distinctive development of capabilities and, thus, what is needed in the value creation and gaining profits in the long run? In other words, *what is the dynamic capability view (DCV)*? Dynamic capabilities can be defined as the organization's entrepreneurial and strategic capabilities that reflect their capacity to exploit intangible assets, managerial processes and organizational structures (Teece, 2000). At its purest, DCV has pointed out that evolution of dynamic capabilities is based on unique paths in the evolutionary discovery process (Penrose, 1959), but recently the focus has been on the unique paths shaped by learning mechanisms (Eisenhardt & Martin, 2000) referring to resource accumulation, organizational learning, team management and innovations (e.g. Penrose, 1959; Teece & Pisano, 1994). Indeed, organizations accumulate knowledge, expertise and skills through organizational learning that occurs as individual interactions and development of common codes to communicate and coordinate procedures (Deeds & DeCarolis, & Coombs, 1999). In summary, the capabilities are organizational processes and routines based on knowledge and, furthermore, dynamic capabilities refer to their configuration and involve a modification process as an output of new resources and routines (Cepeda & Vera, 2007). This study concurs with the study of forming a circle that sustainable competitive advantage is based on the external environment, appropriability and supply and demand structure in the line of business (cf. Ståhle et al., 2002). Dynamic capabilities are moreover focused on the organizational issues and intellectual capital. Therefore, they should be approached more analytically even if the value maximization of such resources may not always be the best tools for framing strategic issues due to the dependency of

one resource source on the other. In general, there is a need to bring the PSM capabilities more directly into the agenda of business management.

3.2.1. Elements of dynamic capabilities

The dynamic capability view emphasizes how organizations develop unique capabilities over time by integrating their resources and accumulating their skills and competencies towards the desired direction (Deeds et al., 1999). There are three essential dimensions of dynamic capabilities that are vital for sustainable success (Luo, 2000): the capability possession of distinctive resources, the capability deployment referring to resource allocation and the capability upgrading related to dynamic learning. Learning has been pointed out to be the key to staying competitive (Teece, 2000). In the context of dynamic capabilities, the strategic view is related to the managerial and organizational processes and available paths[37] to perform the tasks in an organization-specific way that refers to the routines within the organization or patterns of current practice and learning (Teece & Pisano, 1998). The strategic value of the internal organizational and strategic processes are based on their ability to create and manage resources into value-creating strategies (Eisenhardt & Martin, 2000). Successful organizations are structured to benefit unique resources, knowledge and assets to respond to customer needs. Sustainable competitive advantage is no longer status quo far into the future; rather, it is temporary. Thus, the organization must continually upgrade its core competencies to generate economic value (Mahoney, 1995) and to achieve sustainable competitive advantage. Dynamic capabilities should generate new resources and find fresh competitive positions using a path-breaking strategic logic of change and, thus, there would be a series of temporary competitive advantages that lie in the resource configurations rather than the capabilities themselves (Eisenhardt & Martin, 2000). Dynamic capabilities are the combination of four capabilities: resource integration, resource reconfiguration, learning capabilities as well as the ability to respond to the rapidly changing environment (Wu & Wang, 2007). A similar idea is also followed in this study and the formulation of dynamic capabilities is illustrated in Figure 5.

[37] By paths Teece & Pisano (1998) refer to the strategic choices available to the organization and the attractiveness of these opportunities.

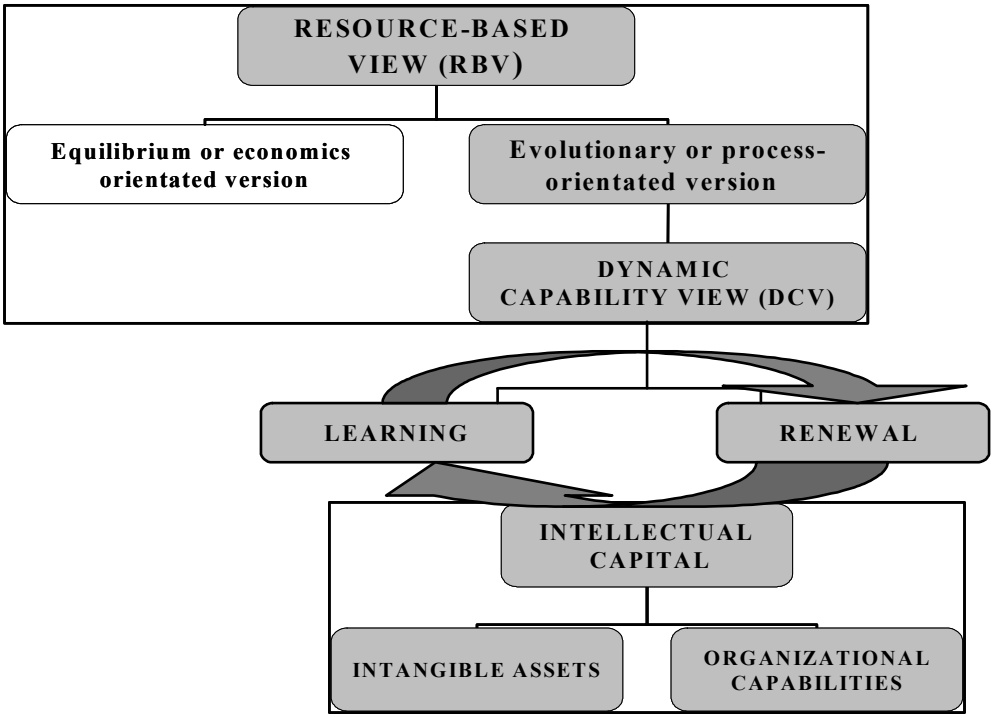

Figure 5. Elements and formulation of dynamic capabilities based on the RBV

There are two different approaches to the RBV of which process orientation is followed in this study because dynamic capabilities are based on this approach as presented previously. According to Figure 5 learning and renewal are the fundamental elements of dynamic capabilities based on the RBV literature presented earlier. Recently, **learning** has been approached as a two-fold topic. Individual learning refers to the capacity to learn within organizations as employees and, furthermore, there is organizational learning as organizations themselves (e.g. Teece et al., 1997; Zollo & Winter, 2002). Learning involves individual and organizational skills and, thus, it requires a common way to communicate and coordinate procedures (Teece & Pisano, 1998) to solve problems and perform given tasks. Mowery and Teece (1993) noticed that individuals must be given opportunities to communicate such knowledge to others within the organization. **Renewal** refers to the willingness to adopt best practices, ability to scan the markets and competitors and capacity to renew and transform

required actions[38] (Teece & Pisano, 1998). Organizational renewal refers to the organization's ability for adaptations such as innovativeness, strategic ability and potential for change (Ståhle & Grönroos, 2000; Teece & Pisano, 1998). Organizational capacity refers to the renewal of resources, routines and competencies and, thus, through innovations and new organizational processes, this could pave the way towards pure value creation with dynamic capabilities to achieve sustainable competitive advantage.

Figure 5 also emphasizes the significance of intellectual capital (IC) that Sullivan (2000) defines as human capital (i.e. individual employees' skills, knowledge and capabilities such as experience, know-how, skills and creativity) with codified[39] knowledge (rf. intellectual assets and knowledge that is codified and defined in forms such as plans, procedures, memos and blueprints that can be transferred further). However, not only the intellectual capacity is significant, but also the capacity to interact and develop common understanding and routines in a turbulent environment is the key element of knowledge (Wilkens & Menzel & Pawlowsky, 2004). Ståhle & Grönroos (1999) highlight an organization's capability to transform its intangible assets and capabilities into economic value. This study mainly complies with the view of Ståhle & Laento (2000) and Ståhle & Grönroos (2000) pointing out that **intellectual capital** consists of two issues: i) **intangible assets** such as brand, technical systems and intellectual property rights (IPRs)[40] and ii) **organizational capabilities**[41] such as individual competencies and capabilities as well as the organization's performance. Furthermore, intellectual capital can be classified into three sub-categories: mechanic IC refers to the intangible assets; organic IC is related to evolving competencies (towards the capabilities) such as individual competencies and organizational performance; and finally dynamic IC refers to the self-renewal ability as the power of change and strategic ability (Ståhle & Grönroos, 2000). Especially such organizational capabilities are the interest of this study as well as their evaluation in the PSM context.

[38] Decentralization and local autonomy may assist such processes (Teece & Pisano, 1998), but these topics are not covered in this study framework due to that these issues are not the main topic, and thus, they are just illustrated as characteristics of dynamic capabilities formulation.

[39] See also Teece (1998) who distinguishes between codified and tacit knowledge while the former refers to the blueprints, formulas or computer codes and thus this pure technical property can be economically transferred, the latter refers to the tacit or uncodified knowledge that is difficult, costly and slow to transfer. Such knowledge is often difficult to exchange, because it is embedded in the firm's personnel and infrastructure (Sherwood & Schlosser, 1993).

[40] In other words, intellectual property rights refer to the legally protected intellectual property such as trademarks, patents, trade secrets and copyrights (Sullivan, 1998).

[41] Added by the Author; the original author only referred to the term *competence*.

3.2.2. Path-dependency and development of dynamic capabilities

Organization culture, values and climate have been discussed for many decades. The learning organization[42] has become a significant research topic. It is defined as the combination of structures and policies that encourage individual learning with individual and organizational benefits (Huczynski & Buchanan, 2007), and more broadly, the learning organization enables individual learning to create valuable outcomes, for instance innovations, efficiency or competitive advantage (Huysman, 1999). While dynamic capabilities are aimed at the generation and adaptation of operational routines[43], they are developed through the co-evolution of three mechanisms (Zollo & Winter, 2002): i) **tacit accumulation of past knowledge** when tacitness arises from experimental learning organization; ii) **knowledge accumulation** refers to implicit knowledge that is articulated through collective discussions, meetings and performance evaluation processes; and iii) **knowledge codification processes** are related to the individual codification of their understandings of the performance and implications of the internal routines in written format such as manuals, blueprints and software. Codification facilitates the diffusion of existing knowledge (e.g. Nonaka & Teece, 2001; Winter, 1987; Zander & Kogut, 1995). Codification is very significant to the knowledge transfer but it also has a major role as the supporting mechanism to the entire knowledge evolution process (Zollo & Winter, 2002). The organization's ability to adopt a new technology is a significant source of dynamic capability (e.g. Ståhle & Grönroos, 2000; Ståhle & Laento, 2000). Typically a large amount of new, commercially exploitable knowledge, data and material is produced in supplier and customer relationships. This material and data is also exchanged inside and between organizations.

3.3. Role of capabilities and resources in this study context

It has been argued that the RBV[44] is ultimately a matter of the entrepreneurial visions and intuitions (Conner, 1991) that refer to the managerial (rf. individual entrepreneurial

[42] The seminal work of learning organization was presented by Argyris and Schön (1978).
[43] Furthermore, organizational routines are stored in the organization's collective memory.
[44] See for instance Eisenhardt & Martin (2000) and more broadly López (2005) who summarizes the comparison between RBV and DCV.

capability) or organizational capabilities (rf. organizational capability) also to guide the organization towards success in the future. Furthermore, organizational capabilities can engender sustainable competitive advantage if they are not easily tradable in the market, development takes long time, they are path dependent, and entail socially complex relationships with other organizational resources (e.g. Barney, 1991; Teece et al., 1997). Recent studies have pointed out that the resource substitution (as one of the VRIN attributes) refers not only to the sustainability of competitive advantage, but also to the attainment of competitive advantage and resource scarcity through functionality rather than the actual resource type (Peteraf & Bergen, 2003). Functionality refers to the learning, innovation, competence building, entrepreneurship and visions (see origins of Prahalad & Hamel, 1990; Teece & Pisano, 1994). This point of view integrates these two approaches – the resource-based and the dynamic capability view – under the same roof. Such dynamic capabilities enable the organization to exploit opportunities and minimize the threats from the turbulent environment. This value creation viewpoint has been emphasized also in the context of the RBV by arguing that the pure resource-based view does not explain value creation. This study argues that the resource-based view is like a big umbrella under which the dynamic capabilities view falls. While dynamic capabilities cannot be traded or acquired freely from the market (see e.g. Barney, 1991; Teece et al. 1997; Teece & Pisano, 1998), they must be formed by integration or configuration of the resource base as an answer to the continuous challenges offered by the markets. Thus, dynamic capabilities could be generated and transformed into the innovations that are hard for other organizations to imitate (see e.g. Nelson, 1991), and moreover new learning may generate new ideas from existing knowledge (Kyläheiko et al., 2002). The basic idea of the RBV is that the organization is a mix of resources and capabilities to identify the organization's business strategy. What about the linkage between these two approaches – the RBV and DCV – and the objectives of this study? Figure 6 presents the relationship between the dynamic capabilities (DCV) and resource-based views (RBV) to acknowledge the significance of the theories used in the formulation of PSM capabilities as well as the business strategy of the organization.

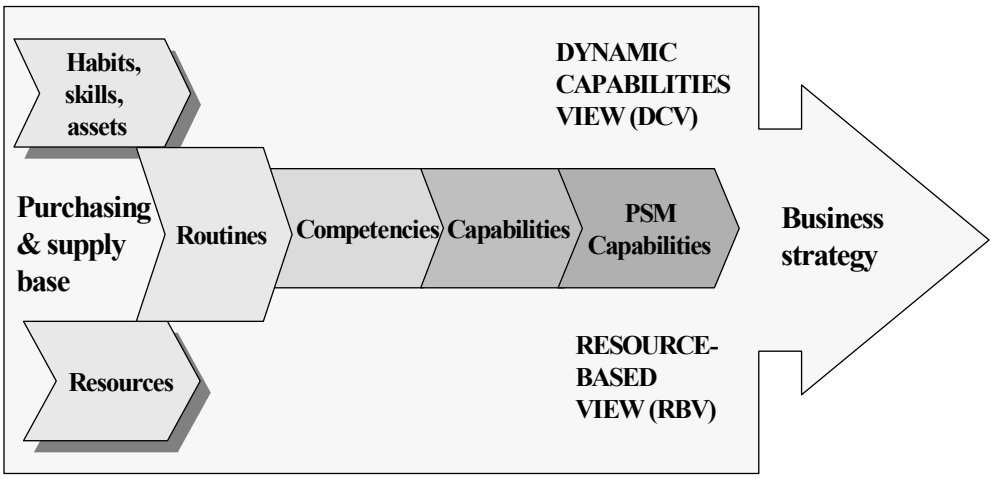

Figure 6. Formulation of PSM capabilities based on the RBV and DCV (cf. Kyläheiko et al., 2002; Ståhle et al., 2002)

As shown in Figure 6, organizations have their unique resources, skills and habits to form their routines. Organizations' resources are financial, physical, legal, human, organizational, informational and relational (Hunt, 2000; Kyläheiko et al., 2002), whereas routines are patterns of interactions that represent successful solutions to particular problems (Teece & Pisano, 1998). Routines are the foundation for competencies and capabilities. The formulation process of the PSM capabilities is needed to identify and evaluate the PSM capabilities, which is the purpose of this study. Organizations should identify their specific valuable resources, assets and competencies to manage their critical capabilities. Particularly, organizations should identify their key PSM capabilities.

3.4. Organizational capabilities of PSM

This study has presented the basic foundations of the RBV as choosing resources to maximize the expected economic profit and utilize the potential value achieved in resource integration, modification and development. Furthermore, this argument is related to the organization's knowledge of its circumstance, while Makadok and Barney (2001) present the new approach to

facilitate and solve the organization's information acquisition problems rather than the strategy formulation problem (rf. Figure 6). Thus, this avenue will make information acquisition decisions that maximize the expected economic profits and values to acquire the organization's knowledge of the circumstances as extending the traditional RBV one step backwards to exploring what kinds of resources the organization should acquire in order to obtain the capabilities needed in developing sustainable competitive advantage. The organizational resources (rf. RBV) and innovations and learning (rf. DCV) are now discussed in the context of PSM.

Resources are the basis of the PSM capabilities (illustrated in Figure 6) and therefore, they should also be identified. Figure 7 presents the organizational resources of PSM.

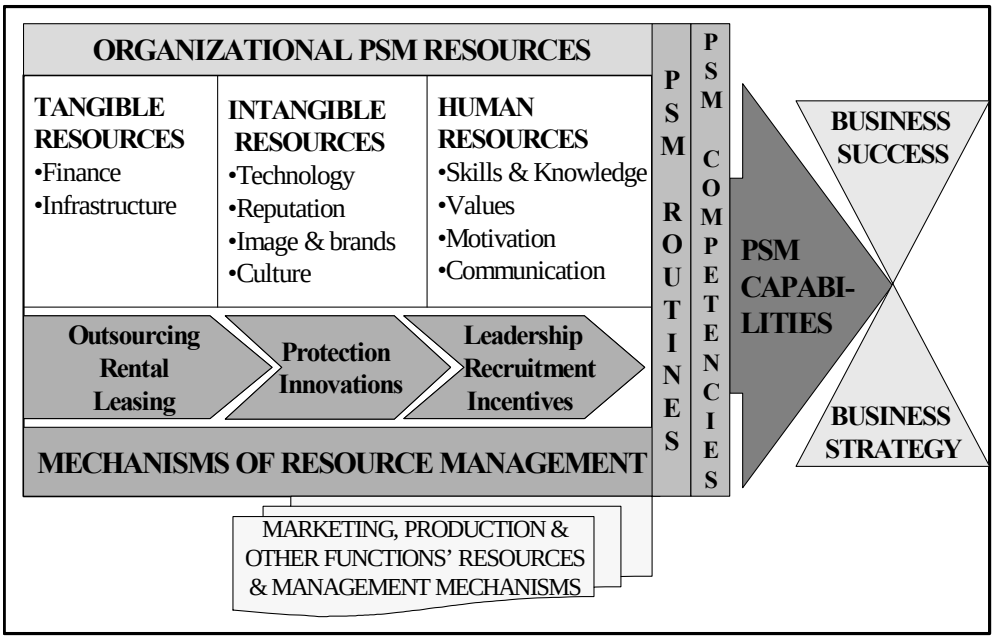

Figure 7. Organizational resources of PSM (a general classification of resources is adapted from Grant, 2002, p. 139)

Barney (1991) presented the traditional classification of the organization's resources in which resources are grouped into physical, human and capital categories, while Grant (1991) also

integrates the financial, technological and reputation resources into this classification. As illustrated in Figure 7, tangible resources are related to the organization's financial resources and infrastructure such as buildings and facilities, machines, tools and equipment, raw materials and services[45]. Due to the nature of these resources, they are the easiest to identify and evaluate mainly based on financials statements and sheets (Grant, 2002). These resources are usually purchased for long duration. Organizations have decreased their long-term investments in infrastructural resources and, thus, outsourcing, rental and leasing are potential opportunities. Even though tangible resources are the organizations' cornerstones, the role of intangible resources, especially the significance of the services, has strengthened enormously due to the costs increasing and the lack of required skills and capabilities within organizations. Intangible resources can be classified into technological resources such as intellectual property rights, copyrights and trade secrets, and innovation resources because the organization's reputation is related to brands, trademarks, and reliability (see e.g. Grant, 2002; Ståhle & Laento, 2000; Teece, 2000). Defined as the set of shared values and norms that within the organization impact the interaction between individuals (Jones, 2001), organization culture could be seen as part of intangible resources, even if it is also part of general leadership and process management. Human resource management (HRM) refers to the leadership and managerial skills to recruit capable personnel with appropriate skills and knowledge as well as to create an open and innovative atmosphere, where personnel is motivated and committed to their tasks and organizational goals. Generally, HRM is defined as the organization's facilities of recruitment, training and motivation, commitment and management, development and reward systems of personnel (see e.g. Huczynkski & Buchanan, 2007; Kauhanen, 2006); in other words HRM supports organizational strategy to form an integrated system of personnel policies (Huczynkski & Buchanan, 2007). Thus, open communication among the team members and individual values are part of organizational culture.

The most important aspect of understanding the organization's ability to catch and create knowledge is its dynamism to continuously create new knowledge out of existing organization specific capabilities rather than the stock of knowledge (see e.g. Barney, 1991; Lei & Hitt & Bettis, 1996; Nelson, 1991; Teece & Pisano & Shuen, 1997). Nonaka and Teece

[45] See for instance, Grant (2002) about a classification of the organization's resources, the relevant characteristics as well as key indicators for performance measurement.

(2001) have also pointed out that knowledge is dynamic (compared to information) as it is created in social interaction among individuals and organizations. Based on these requirements, knowledge and information are the opposite sides of the same coin. This leads to the first question of how to identify the key PSM capabilities. The relevant literature has pointed out the issue of individual PSM capabilities as discussed previously. Human resources, technologies, production equipment, organization structures and processes refer to the organizational capability to manage and fulfil the assignments (Axelsson et al., 2005b). The organization consists of human, physical and financial resources and a knowledge base which is divided into static resources that already exist and are routinely exploited and dynamic capabilities that are new or not fully identified or exploited and, thus, the business success depends on the organization's ability to exploit these static resources and to explore dynamic capabilities (Kyläheiko et al., 2002). As discussed previously, in this study the individual PSM capability can be defined as the individual knowledge, skills, ability, attitude and willingness to perform the required tasks while the organizational PSM capability is the unique integration of human resources, technologies, equipment, organizational structure, routines and processes that are commonly acknowledged within the organization.

Today, widespread and multiple skills, competencies and capabilities from several different business areas are required to enhance PSM capabilities. These issues should be investigated on many organizational levels among the professional and non-professional buyers[46] to identify the individual gaps of the PSM capabilities. Once the gap is identified, the corrective actions can be drawn on the planning table. These can be, for example, courses taken by individual employees or general organizational (at least purchasing function level) education that is targeted to the problematic topics. In other words, the participants have similar gaps in their profiles of PSM capabilities and, thus, the topic is tailored around this deficiency. Nevertheless, the filling of this gap may also expose the business to overwhelming competition both individually and organizationally. Thus, the key PSM capabilities are defined as the organization's ability and willingness to deploy individual PSM resources by using organizational capabilities and processes to achieve the organization's goals and fulfil the duties of PSM. This could lead to the greater good of the entire organization.

[46] Rf. also the terms *non-buyers* or *non-procurement professionals* (Hunt, 2007), but this study uses the term *non-professional buyers*.

4. THE CAPABILITY MATRIX – HOW TO IDENTIFY THE KEY PSM CAPABILITIES?

Recent studies have explored the linkages between the organization's resources and performance measurement through the resource-based view and the dynamic capability view. For instance Wu and Wang (2007) present a framework for organization resources (measurement items such as specialized know-how, capital, operational management capability and cooperative alliance experience), willingness to support the organization's cooperation (rf. production capability and partner willingness), the dynamic capabilities (e.g. the resource integration and the reconfiguration capability, learning capability and ability to respond to the rapidly chancing environment) and the organization's competitiveness (e.g. innovative speed, quality and efficiency as well as R&D capability). These evaluation criteria are partially cited in this study as well. How then are the resource-based view and dynamic capability view related to the PSM capability matrix presented in this study? The individual skills, assets and resources form the daily routines that are the basis of the competencies and, even further, the capabilities (illustration in Figure 6). The RBV is related to the classification of PSM capabilities (rf. research question 1) and resources. Furthermore, the PSM capabilities are related to the purchasing strategy, and through the purchasing strategy they will impact the entire business strategy of the firm; thus, the strategic approach is required in the matrix. The resource-based view is linked to the resources as discussed in the previous chapters of organizational PSM resources (rf. Figure 7). On the other hand, the dynamic capability view is related to the individual and mutual learning and how to renew the intellectual capital including the intangible assets and organizational capabilities (rf. Figures 5 and 7). The DCV is linked to the evaluation of the PSM capabilities (rf. research question 2). Indeed, as shown in the study of Spiller and Reinecke (2007), the people in the organizations are the most significant talent and, thus, the PSM capabilities impact the financial and economic performance as well. Moreover, the operative skills and resources of PSM are significant in the daily routines and processes and, therefore, in the long run they enable mutual learning towards organizational capabilities. Consequently, the RBV and DCV are linked to the PSM capability matrix as the cornerstones of this study.

Evaluation of the PSM capabilities should consist of the following aspects: 1) identification of the PSM capabilities (i.e. the strategic, economic and operational PSM capabilities) existing in a given time; 2) defining the evaluation categories (four categories from rookie to expert); 3) defining the ideal levels linked to those categories; and finally, 4) the inputs needed to achieve the goals such as the corporate strategies and policies, tools and methods, information systems and communication, control as well as human resources. These inputs give the organization an opportunity to interact more strategically in internal and external relationships and, thus, also to facilitate the identification of the PSM capabilities that will meet the wanted goals and profits. When seriously trying to develop their PSM, the organization should evaluate their key PSM capabilities that reflect true value to end customers and other external groups. There are a number of ways to become excellent purchasing professionals both on the individual and organizational level. First, there should be individual motivation and enthusiasm to perform the assigned tasks in the best possible way to pursue higher outcomes. Secondly, there should be appropriate knowledge and individual skills, competencies and capabilities to perform the tasks. However, individual willingness and capability to perform tasks is not quite enough, if the focus of business success is on the greater good, namely, the organizational capabilities which are, in fact, more favorable due to the higher organizational performance and business profits. However, purchasing professionals spend a lot of time gathering and reporting data that provide limited insight and knowledge that can be measured. This data should always be utilized in the development of PSM, but also in short-term planning and daily routines to enhance the development of PSM capabilities.

Human capital assets are not only rare (cf. RBV as VRIN attributes), but also require efforts such as commitment and time and, thus, in order to fully utilize expertise in strategic cost management, PSM needs to be viewed as a strategic corporate function (Zsidisin & Ellram & Odgen, 2003). Like intangible resources, human capital is difficult to measure exactly because individual views and options may vary heavily and, moreover, they are strongly connected to subjective experiences such as *good* or *bad days*. Even if individual evaluation is significant, the organizational perpective is crucial to identify the PSM capabilities and, thus, to recognize the possible sources of higher value and profits. This is the justification to identify the desired PSM capabilities to avoid the unwanted ones which, indeed, requires a lot of analysis and evaluation until the organization can make the optimal decisions. The PSM capabilities are

related to know-how about the supplier markets, the analytical skills of the purchasing personnel and the use of PSM performance measurements (e.g. Carr & Smeltzer, 1997). The organization's performance depends on the combination of their capabilities with their strategic objectives or intent (Foss & Robertson, 2000). This chapter is focused on the construct of this study, the PSM capability matrix, including the illustration of the development process from the original matrix to the version introduced in this study. Firstly, the original PSM capability matrix is displayed together with the original evaluation categories (rookie, junior, senior and expert). Secondly, the development process of the PSM capability matrix is discussed. Thirdly, the complete PSM capability matrix of this study is presented thoroughly including the revised evaluation categories.

4.1. The original versus revised PSM capability matrix – the development process

The original PSM capability matrix classified the PSM capabilities into three categories: strategic, economic and operative. The original matrix that was created in the PSM research project at LUT is presented in Table 1.

Table 1. The original PSM capability matrix created in the PSM research project of LUT

QN	PSM CAPABILITIES	IGNORE 1	LITTLE 2	REACTIVE 3	PROACTIVE 4	V	I	G
	STRATEGIC							
0,14	business strategy knowledge	no knowledge	identifying the concept	knowing few parts impacting own work	understanding the content and its impact on your own work			
15	value network thinking	no knowledge	identifying the concept	knowing value network thinking & own role in the network	strategic management of customer relationships (strategic integration)			
16	strategy process knowledge/ participation	no knowledge	identifying the concept/ no own participation	knowing few elements of process/ participation on some level	understanding the entire process/ active participation			
17	formulation of purchasing strategy/ participation	no knowledge	identifying the concept/ no own participation	knowing few elements of process/ participation on some level	understanding the entire process/ active participation			
18	identification of strategic tools/usage	no knowledge	identifying tools by names/ not in active use	knowing the most important ones/ using some	understanding the significance of strategic tools/systematic usage/development			
19	identification of purchasing strategy elements	no knowledge	identifying the concept and few elements	knowing the most important elements	understanding the significance of purchasing strategy & it is based on corporate strategy			
21,22	supplier relationship management	no knowledge	identifying the different types of suppliers	knowing the basics of supplier relationship management	strategic management of supplier relationships			
20	supply market follow-ups	no knowledge	identifying few methods to follow up markets	knowing the backgrounds & usage of follow-up methods	adaptation of the methods and active usage			
	customer relationship & management	no knowledge	identifying different types of customers	knowing the principles of customer management (e.g. segmentation)	strategic management of customer relationships (strategic integration between purchasing & marketing strategies)			
	ECONOMIC							
9,10	knowledge of PSM impacts on business profitability	no knowledge	identifying the impact of PSM	knowing the profit impact of PSM	understanding the components that impact the effectiveness & profitability of PSM			
11	identification of cost management methods/ usage	no knowledge	identifying cost management methods/ not in active use	knowing the most important ones/ using some	understanding the strategic significance/ systematic usage and development			
11	knowledge of purchasing cost elements	no knowledge	identifying the price only	knowing the total cost of purchasing	understanding the life cycle costs			
10	economic planning & reporting/ participation	no knowledge	identifying few parts of financial planning/ no participation	knowing many parts/ participation on some level	understanding the significance of strategic financial planning & integration to other functions/active participation in setting goals & management			
10, 12	purchasing performance & measurement	no knowledge	identifying few ratios without understanding their formulation	knowing /usage of several different ratios	understanding the formulation of ratios & impact to the management			
	OPERATIVE							
2	implementation of supplier selection process	no knowledge	identifying few stages of supplier selection process	knowing the entire supplier selection process	understanding the significance of supplier selection process to the effectiveness of PSM			
3	methods of supplier selection & evaluation	no knowledge	identifying few separate methods	knowing several different types of methods	adapation of the methods and active usage			
4	implementation of ordering and delivery processes	no knowledge	identifying few stages of ordering and delivery processes	knowing the entire ordering & delivery processes	understanding the significance of ordering & delivery processes to the effectiveness of the PSM			
5	methods of ordering and delivery processes	no knowledge	identifying few separate methods	knowing several different types of methods	adapation of the methods and active usage			
6	the service ability & quality assessment of PSM	no knowledge	identifying few separate methods	knowing several different types of methods	adapation of the methods and active usage			
7, 8	IT systems development & usage	no knowledge	identifying few areas of development	knowing the development process of IT systems	understanding the significance of IT-systems development in the development of PSM			

Abbreviations as:
QN=Guestion number
V= Value
I= Ideal value
G=Gap between Ideal value and Value

As can be seen in Table 1, along the three primary categories of the PSM capabilities there were 20 sub-capabilities in the original PSM capability matrix. The four categories – rookie, junior, senior and expert – were recognized to facilitate the evaluation of the PSM capabilities that were also similar to the original classification. Introduced in this study, the new version of the PSM capability matrix is significantly evolved from the original one due to the Author's analysis and synthesis which is based on further examination of the literature discussed previously. Based on this, the final version of the PSM capability matrix (presented in this study) was developed. Figure 8 concludes the actual development process of the PSM capability matrix and the results implemented in this study based on the constructive and case study research methods.

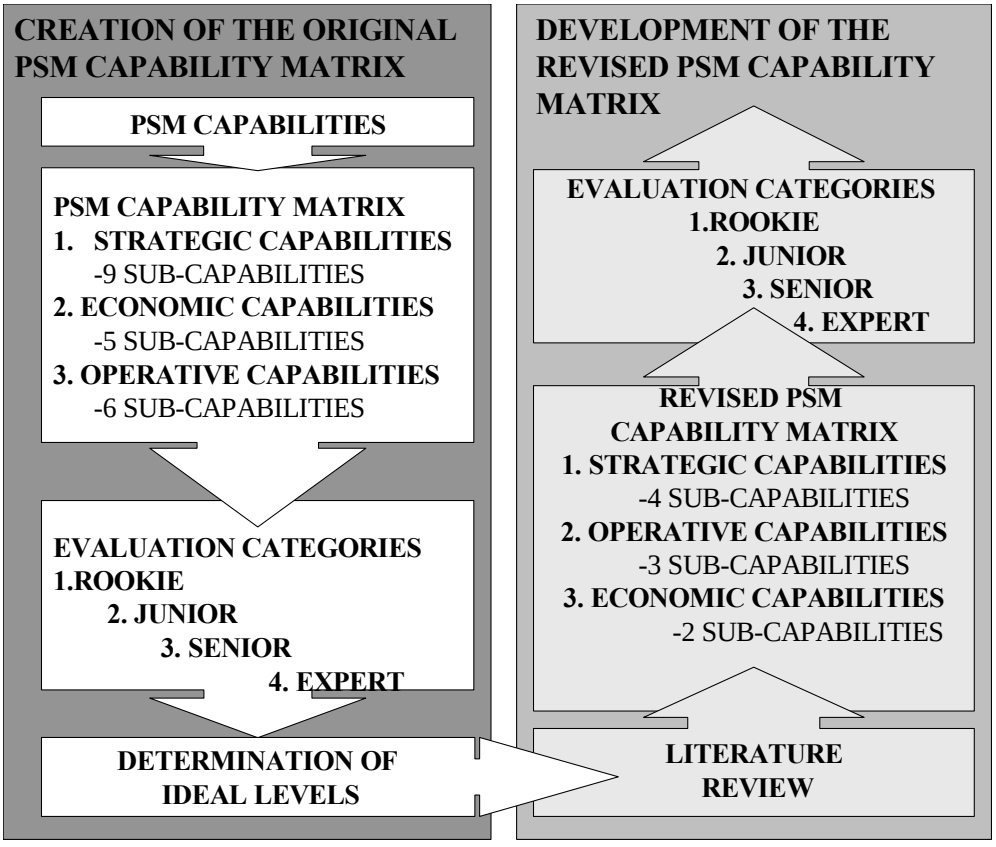

Figure 8. Development process of the PSM capability matrix of this study

As illustrated in Figure 8, the original PSM capability matrix was created in the PSM research project as was presented previously (Chapter 1). The development process of the matrix in this study proceeded from the literature review to the capabilities based on the resource-based and dynamic capabilities views complemented with the literature on PSM as well as the strategic management and organizational theory. Furthermore, the PSM capabilities are classified once again following the original idea of three categories: strategic, economic and operative. This time, the categories are derived from the above literature, in which they were extensively discussed and supported. Based on this, a different order was selected for the categories.

This revised version summarizes the same issues as the original one, but in a more sophisticated form. **While the original capability matrix was classified into 20 different evaluation criteria with their four evaluation levels (summarized 80 items), this version is grouped into nine evaluation criteria with four evaluation levels (summarized only 36 items).** Furthermore, **there are some distinctions such as the issues of the purchasing policy or purchasing strategy tools that were not included in the original version. It should be pointed out that this revised version presents the comprehensive supply process rather than just the process of ordering and deliveries as discussed in the original matrix. Thus, the Author of this study has also changed the presentation order because in some cases it is more logical and it found support in the literature findings.**

4.2. The actual construct – the revised PSM capability matrix

The PSM capability matrix of this study uses a different presentation order than the original one (cf. Tables 1 and 2). **Indeed, the topics of the strategic and operative PSM capabilities are presented firstly because there are several linkages and connections between the capabilities. Moreover, the economic PSM capabilities are partially based on these two categories – the strategic and the operative – and thus, it is justified to discuss the economic significance of PSM last, but not least. Indeed, this order is selected because this study emphasizes the crucial role of PSM in the business profits and economic success.** Table 2 summarizes the key PSM capabilities including the related sub-capabilities as well as the key evaluation criteria for the capabilities.

Table 2. The PSM capability matrix

PSM CAPABILITIES	ROOKIE	JUNIOR	SENIOR	EXPERT	V	I	G	QN
	1	2	3	4				
STRATEGIC PSM CAPABILITIES								
1. Value networks & customer relationship management (CRM)	no knowledge	recognizing the concept & different types of the customers	knowing the concept & own role in such network & principles of the customer segmentation	understanding the role & purpose of entire value network & the strategic CRM; application to own context				13,15
2. Business strategy; strategy process & tools	no knowledge	recognizing the concept & tools by names (not in active use)	knowing the concept & parts that impact own work & the significant tools; using some tools that are relevant to object	understanding the content of business strategy & strategy process; systematic usage & development of tools in own context				0,13,14 16,18
3. Purchasing strategy; formulation process & tools	no knowledge	recognizing the concept & few elements & tools by names (not in active use)	knowing the most elements of purchasing strategy & formulation; the significant tools; using some tools that are relevant to object	understanding the entire process & elements; the signi-ficance of purhasing strategy; systematic usage & development of tools in own context				17,19 21,22
4. Supplier relationship management (SRM) & supply market	no knowledge	recognizing the different supplier types & few tools to follow market	knowing the basics of SRM; using follow up tools that are relevant to the object	understanding the entire SRM; adapation & development of the significant follow up tools that are in active use				20,21 22
OPERATIVE PSM CAPABILITIES								
5. Purchasing policy	no knowledge	recognizing the concept & few elements of formulation; purchasing procedures	knowing the elements of entire purchasing policy; including development of the purchasing procedures	understanding the significance of purhasing policy & procedures with their systematic evaluation & development				1,7,8,13
6. Purchasing process & tools	no knowledge	recognizing few stages of purchasing process: few separate tools that are not in active use	knowing the entire purchasing process; several different tools in in active use (not applied)	understanding the significance purchasing process to the effectiveness of PSM; tools applied in own context				2,3,4
7. Supplier selection process & tools	no knowledge	recognizing few stages of supplier selection process; few separate tools; not in active use	knowing the entire supplier selection process; several different tools in in active use (not applied)	understanding the significance supplier selection process to the effectiveness of PSM; tools applied in own context				5,6
ECONOMIC PSM CAPABILITIES								
8. Cost management & tools of PSM; financial planning & reporting	no knowledge	recognizing the price; few tools & parts of the financial planning; tools not in active use	knowing the total costs of the purchasing; many parts of the financial planning; active usage (not applied)	understanding the life cycle costs; the significance of the strategic financial planning & integration to other functions; tools applied in own context				9, 10 11,12
9. Economic role of PSM & performance measurement	no knowledge	recognizing concept & few elements; ratios by names (not active use)	knowing most elements of measurement; several ratios in active use (not applied)	understanding the significance of PSM measurement; the formula-tion & impacts of ratios; applied & developed in own context				9, 10 11,12

Abbreviations as:
QN=Question number
V= Value
I= Ideal value
G=Gap between Ideal value and Value

Based on the constructive research approach, the construct of this study is the PSM capability matrix to identify and evaluate the PSM capabilities which are classified into three categories, strategic, operative and economic, illustrated in Table 2.

- **First,** the **strategic capabilities** are related to the four different sub-capabilities:

    1. **Value network & customer management**
    2. **Business strategy, strategy process & tools**
    3. **Purchasing strategy: Formulation, elements & tools**
    4. **Supplier relationships & supply market**

- **Secondly**, the **operative capabilities** are approached with regard to:

    5. **Purchasing policy**
    6. **Purchasing process & tools**
    7. **Supplier selection process & tools**

- **Thirdly,** the **economic capabilities** are investigated through:

    8. **Cost management & cost management tools;**
       Financial planning & reporting of PSM
    9. **Economic role & performance measurement of PSM**

Having developed the matrix and identified the PSM capabilities, the next phase is determining the evaluation categories for the PSM capabilities, namely, rookie, junior, senior and expert, illustrated in Figure 9.

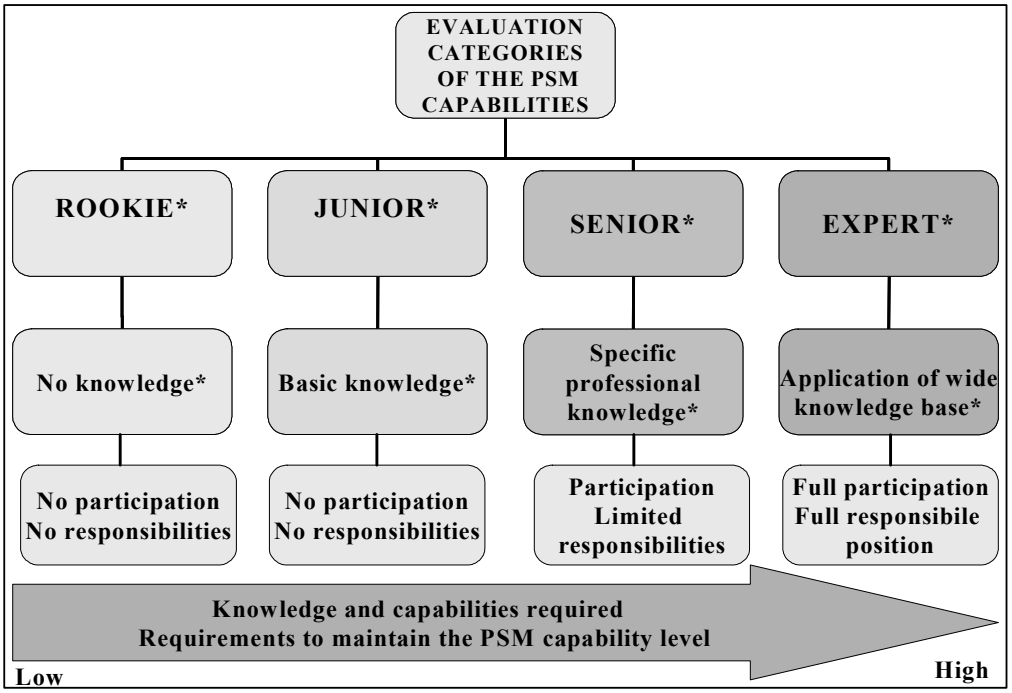

Figure 9. The evaluation categories of the PSM capabilities (*modified from Axelsson et al., 2005b)

Figure 9 summarizes the different requirements in classifying the PSM capabilities into the four categories. The fist category is ”ROOKIE” with *no* experience, skills, competencies or knowledge on the matter. In the second category “JUNIOR” the concept is *recognized* or there is some experience. Thus, there are basic skills, knowledge and competencies in PSM. The third category is “SENIOR” in which the specific knowledge of PSM is *identified and partially used*. Finally, “EXPERT” refers to the complete *understanding* of the concept and, thus, there is a wide range of specific knowledge (also outside the PSM field) and experience. Furthermore, there are high requirements about the skills and competencies in PSM. In Figure 9, the arrow illustrates the requirements to maintain the achieved level of PSM capabilities. The arrow moreover presents the level of PSM knowledge and capabilities required in the different categories. It should be emphasized that in the EXPERT category, the PSM knowledge is integrated and adapted to other fields of knowledge to create new PSM knowledge or capabilities. It should be pointed out that the PSM capabilities are based on the

integration of PSM skills and competencies related to the ability and willingness to perform the tasks. Furthermore, the organization may have their own tools to evaluate performance, which are not specifically covered in this study; but if the tool is appropriate and provides similar and/or supportive information to the data and results as the tools discussed in this study, it has been included as part of the relevant capability category. However, such organization-specific tools cannot alone be a reason for belonging in a specific capability level; other tools and methods should also exist.

The next chapters will introduce the strategic, operative and economic PSM capabilities with the four evaluation categories (from rookie to expert). Each category is presented separately, and relevant, specific limitations and deeper characteristics are presented with each capability category. However, it should be emphasized that **the rookie category is not discussed more closely, because it can be defined as "*no knowledge or experience at all of the topic.*" This definition is similar in each capability category and, thus, there is no need for separate presentation. Furthermore, it should be acknowledged that this study only presents the basic idea of the potential tools available and why they are selected and appropriate to this study.** A deeper formulation or potential applications of the tools are, however, not covered in the study. Thus, there is need for only a brief presentation of the "selective collection" of tools, not to demonstrate the actual tools more specifically.

4.3. Strategic PSM capabilities

The organization may pursue business strategies[47] that can increase their expected value to customers, partners and stakeholders. Organizations could improve their performance by integrating the business strategy into resource management decisions. While the business strategy provides goals for actions, resource management offers the tactics and a set of resources to support the strategy (Finney & Campbell & Powell, 2005). Traditionally, PSM has not played a significant role in strategic business management. The purchasing strategy should, however, be part of the organization's business strategy and, thus, they should share

[47] The terms *business strategy* and *corporate strategy* are used interchangeably in this study.

the same values, mission and goals as the other functions[48]. Furthermore, PSM has a significant role in the organization's financial performance and economic status. Cousins (2005) argues that the strategic nature of PSM is to find the appropriate purchasing strategy for the competitive advantage to be measured factors, such as cost focus (e.g. cost and supply base reduction and increasing purchasing profile), differentiation (e.g. supply tiers and outsourcing strategies), strategic collaboration (e.g. customer requirements, joint new product development and sharing basic technologies), operational collaboration (e.g. share operations planning information, joint capacity and order management systems) and relationship development outcome (e.g. risk and rewards sharing, integration of business processes and transparency of partner's business). Supply integration is also divided into four elements (Paulraj et al., 2006): *relational integration* relates to the long-term relationships and a limited number of suppliers (cf. SRM), *process integration* as logistics (cf. discussed in-depth in this study as the strategic level business process integration rather than just operative processes), *information integration* relates to two-way communication and inter-organizational systems (rf. intra- and inter-organizational development), while *cross-organizational teams* refer to the general goals and product development of supplier involvement (cf. resource and team management). These viewpoints can also be found in the strategic PSM capabilities illustrated in Figure 10.

[48] The role of purchasing strategy, formulation and evaluation will be presented comprehensively in Chapter 4.3.3.

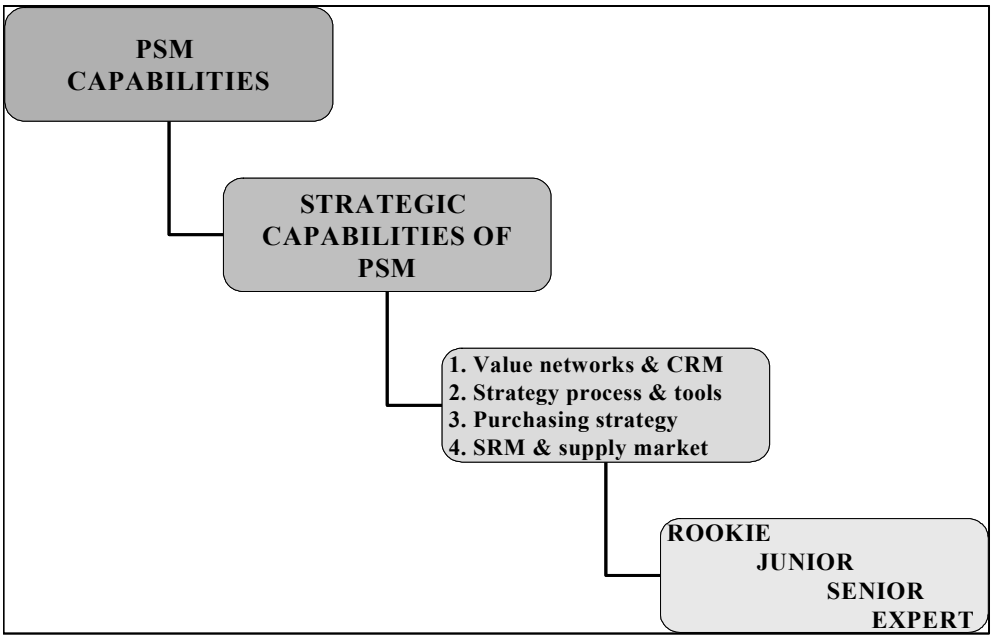

Figure 10. Strategic capabilities of PSM

Figure 10 summarizes the strategic PSM capabilities that are classified under the topics of value network thinking and customer relationships management (CRM), strategy process and tools (i.e. the strategy process and tools to facilitate the strategy process and its decision-making), purchasing strategy (rf. the elements and formulation of the purchasing strategy) and supplier relationships management (SRM) with supply market issues. These four sub-capabilities can be evaluated into the four categories, namely, rookie, junior, senior and expert.

Because this study is using a different presentation order than the original capability matrix, the topics of value networks and customer relationship management (CRM) are presented firstly, even though it could be assumed that the strategic management of PSM or purchasing strategy would be the primary interest considering the purpose and context of this study. This presentation order is, however, selected because this study emphasizes the crucial role of customer relationship and their management in the context of PSM.

4.3.1. Value networks and customer relationship management

The basic goal of business is creating and maintaining value to the customers, owners and other stakeholders rather than just decreasing costs and increasing effectiveness. Value can be formulated as the summary of quality, technology, service and cycle time divided by price (Monczka et al., 2005). Value creation depends on the ability to offer something valuable such as high performance and quality, lower prices and costs or profits and benefits to the customer. Value can be assessed by the criteria such as customer satisfaction, customer value-added, total cost analysis and shareholder value (Lambert & Burduroglu, 2000). While value thinking is not a new view in the field of marketing, the concept is an evolving area in PSM. Already the earliest marketing literature repeated the slogan "*customer is the king*", but it should be the highest priority in PSM as well (Koskinen et al., 1995). It should be noticed, that the purchasing strategy should imply the customers' crucial status and how to create more value to them.

The evaluation categories and the key evaluation criteria for the elements of supply strategy, its formulation and tools are i) **no knowledge** (ROOKIE), ii) **recognizes the concepts *value adding network* and *customer relationships* together with the different types of customers** (JUNIOR), iii) **knows and identifies the value chain thinking and the role the organization plays in the chain and basic principles of customer segmentation** (SENIOR), iv) **understands the entire value network with the different roles and players as well as the end-customers and the value they achieve from the network and how to manage them based on customer relationship management** (EXPERT).

Value consists of three quality dimensions such as *functional quality* as to how the customer will achieve the service required (rf. the purchasing channel), *technical quality* as to what is the final output (rf. purchased item is usable and reliable), and the third dimension summarizes these two as *experience quality* (rf. how these goals have been achieved and what the ultimate results are concerning the purchasing service ability and level with customer satisfaction) with the costs and image issues (modified from Grönroos, 1990; Koskinen et al., 1995). Value-adding benefits are for instance issues of quality, costs, time, technology and continuity of supply (Dobler & Burt, 1996). Recently, inter-organizational values are related

to the mutual achievements such as value-driven benefits gained from buyer-supplier relationships and value networks[49]. Value is always part of every decision made by the individual and, thus, it is complex and varies depending on the individual, time, place and context. Therefore, value is a crucial issue in business success and has to be explored in many ways. Today, the value driven PSM is focused on value creation, value chains and networks.

Since the work of Porter (1985), the value chains have been an interesting topic for academics and business managers. Value creation is defined as a "set of activities that create new knowledge through learning or knowledge acquisitions" (Sullivan, 1998, p. 10). Value chain could be defined as a value creation process that is conducted by the acquisition of products and services, purchasing, inventory of raw-materials, semi-products and final goods, design and engineering, manufacturing, assembly, testing and quality control, sales and marketing, distribution and customer support (Grant, 2002)[50]. The value chain includes the entire value adding process from raw materials to finished delivered items with the service after delivery (Lysons & Farrington et al., 2006). In a value chain the value is created from the configuration of inputs into the products and services to compete in the market, while the network is focused on linking customers to the value creation process and, thus, to achieve higher customer satisfaction (rf. JUNIOR level). Value chain management is one of the latest "newcomers" that expand the terms and views of value creation. The definition of value chain management implies that suppliers are part of efforts to enhance value to the customers and, thus, suppliers have close ties with the customers' processes to reduce the products' overall costs and improve new designs or characteristics to increase attractiveness to the end user (van Weele, 2005). Furthermore, value is stated by the end customer and derived from the original source through the suppliers and accumulating towards the manufacturers, distributors and other potential parties and finally achieving the end customer requirements as acknowledged in the beginning (e.g. Dobler & Burt, 1996; Harland, 1996). This refers to knowledge and identification of value chain thinking and the role the organization plays in a particular chain (rf. SENIOR level). Organizations will no longer compete only with each other; rather, the organization is a member of a network and the networks may compete

[49] See also the following chapters about supplier relationship management (SRM) with the benefits and goals.

[50] See e.g. Porter (1985) who originally presented the idea of value chain; in the field of purchasing it has been redrawn by van Weele (2005) as primary activities inbound logistics, operations, outbound logistics, marketing and sales, services and support activities HRM, technology development, firm infrastructure and procurement.

against others and, thus, the purpose of the value network is to create value for the customer (Kothandaraman & Wilson, 2001). Knight et al. (2005) present competence requirements for managing supply in inter-organizational networks with six competence indicators: network understanding, developing the network position, relationship management, learning, knowledge and knowledge management, strategy formulation and strategy implementation. Organizations that achieved success and competitive advantage used strategic planning as a learning tool together with conversation and teams not to generate strategic plans (Kaplan & Beinhocker, 2003) and, thus, they also propose that the ultimate criterion to strategic planning is whether all the participants will be better prepared for the real-time job of strategic decision-making. These topics are included at the EXPERT-level capability that relates to understanding the entire value network with the different roles and players.

Customer strategy is one of the major elements of the CRM strategy. Customer strategy identifies the organization's customers, their needs and the different customer groups that are segmented in an appropriate way (Payne, 2006) to add value to the end-customer and thus, to secure customer satisfaction. On the other hand, the segmentation involves classifying the total markets into sub-markets or market segments based on customer characteristics and, therefore, once the organization understands the characteristics of these different segments, they can adopt a much more targeted approach to their customers (Payne, 2006). These points are also acknowledged in value driven networks and in assessing how to manage them based on CRM. All the above aspects refer to EXPERT-level capabilities related to this CRM approach.

Value is a changing object and customers can only be expected to pay for incremental value received (Lambert & Burduroglu, 2000). The customer value may also be based on the network of externalities, not only external relationships, and thus increasing value is derived from more customers using the product; the more complementary products there will be developed and, thus, the more complementary products, the more valuable the product is to the customers (Afuah, 2000). This aspect highly relates to the strategic management of PSM (cf. supplier relationships) as presented in the following sections.

4.3.2. Business strategy, strategy process and tools

Traditionally, strategic management has been developed through the strategic management vision and business strategy is based on the organizational environment and stakeholders' appetite for profits[51]. Several factors contribute to the organizational effectiveness such as individual, group, structural, process and management dimensions that usually involve long-term strategic management (Huczynski & Buchanan, 2007). Generally, the significance of strategic management has been recognized for several decades as well as that of strategic decision-making (e.g. Grant, 2002; Mintzberg & Lampel, 1999). Thus, the significant strategic capabilities are identified in this study due to the strong linkage to the supply strategy[52].

The evaluation categories and the key evaluation criteria for the elements of business strategy, its formulation and tools are i) **no knowledge** (ROOKIE), ii) **recognizes concepts *business strategy* and *strategy process* and basic tools by names without their active usage** (JUNIOR), iii) **knows and identifies the few parts of business strategy that impact one's own work and the primary elements of strategy process formulation with the most significant tools of which some are also used, but not systematically or continuously** (SENIOR), iv) **understands the entire content of the business strategy and its impact on the work and the formulation of the strategy process, the goals and visions with the utilization and adaptation of the selected tools that are systematically used and developed in their own context** (EXPERT).

What do the concepts *business strategy* and *business strategy process* entail? The business strategy is constructed from the functional and operational strategies linking to the business strategy. Furthermore, the pure corporate strategy is concerned with determining the businesses that maximize profitability, with decisions of growth strategies[53] and defining the corporate values and how to pursue and manage such values (Lysons & Farrington et al., 2006). Business strategy is related to the business goals and ways to pursue them referring to the mission, goals,

[51] According to the shareholder value theory, a business creates value while the net present value of its future cash flows, discounted at the appropriate cost of capital and the ability to create wealth for shareholders is crucial to the survival of organizations (Lambert & Burduroglu, 2000).
[52] The terms *supply strategy* and *purchasing strategy* are used interchangeably in this study.
[53] E.g. integration, intensive and diversification strategies (Lysons & Farrington et al., 2006).

competitor analysis and other supportive tools to form a comprehensive picture of the entire strategy process. Thus, the business strategy is a top management issue that identifies the future directions as well as managing the interaction process between the different processes and functions and, thus, it provides sustained success over a long period (Payne, 2006). In this study, the strategy process has been defined as the process to determine long-term strategic goals, while the business strategy describes the means to achieve strategic goals and, thus, identifies the operative and managerial policies to be pursued. This basic knowledge of the business strategy and its formulation refer to the JUNIOR category. However, even if the concept is recognized, there is no or limited knowledge of the content of the concepts (cf. SENIOR category).

The strategy process and strategy formulation[54] have been defined in many ways, and the literature offers several different angels starting from the seminal ideas of Mintzberg (see e.g. Mintzberg & Lampel, 1999 about a summary of the topic) to more specific applications. The creation of competitive advantage is often claimed as the primary goal of strategy formulation (Makadok & Barney, 2001). The strategic planning process includes the determination of the corporate mission, vision and other strategic goals to be pursued as well as budgeting and performance measurement (Grant, 2002). The origin of the strategy process is formulating and setting the goals, mission[55] and visions referring to the organization's basic beliefs, values and aspirations (Payne, 2006) for short and long term (based on at least the micro[56] and macro[57] level analyses). Based on the goals. the budgets and short-term plans are then formulated, and finally the functional policies and procedures will be embedded into the organization with the corrective action guidelines to the responsible parties. It has often been claimed that the strategy process actually starts with those functional budgets and plans for the future that are summaries and ends of the concluded corporate strategy including the external analysis of economic and market forecasts and competitive analysis (Grant, 2002). Having published the corporate strategy, the goals should be adopted in different functions to be implemented in daily operations, routines and processes. Finally, when there is time for a new strategic planning process, this cycle begins

[54] See Mintzberg & Lampel (1999) about the ten schools of strategy formulation.
[55] Refers to the purpose of the organization's existence and, for instance, the Balanced Scorecard (BSC) is used as a tool for translating the mission into more tangible measurable goals, actions and performance measures (Assiri et al., 2006).
[56] Micro level assessment is related to e.g. suppliers, customers and competitors (in PSM context see e.g. Lysons & Farrington et al., 2006).
[57] A macro level analysis refers to the *macro approach* such as technological, political and legislation, economic, social, ethical, international and natural environments (in PSM context see e.g. Lysons & Farrington et al., 2006)

again to renew the corporate strategy. However, this time the planning process will recognize the previous mistakes and problems and if possible, the forthcoming strategy will be introduced to avoid former difficulties in the next implementation phase. As a summary, strategic planning is a continuous (proactive) development process. Thus, in the SENIOR category there would be professional knowledge of the business strategy especially the parts that may impact the employee's own work as well as the primary elements of strategy process formulation.

Already in the beginning of the 1980s the process of strategic management was presented in four phases (Gluck & Kaufman & Walleck, 1982): financial, forecast-based and externally oriented planning and strategic management. The first stage is focused on annual budgets and functional issues, and the value is to meet the budget. The next phase is related to the multi-year budgets, gap analysis and static allocation of resources to predict the future. Strategic thinking is increasing in the third phase through the evaluation of strategic alternatives, competitive assessments and dynamic[58] allocation of resources. Finally, true strategic management will create the future (not just predict it) by using well-defined strategic frameworks, strategically focused organization and widespread strategic thinking as well as a supportive value system and climate. The EXPERT category relates to understanding the entire strategy process and the significance of the business strategy (including the entire content). Furthermore, one specific issue that highly relates to PSM, is the question of outsourcing which has a significant role in strategic business management and should be part of the purchasing strategy as well. Outsourcing motives usually emphasize operative criteria, such as cost reduction, lack of capacity, increase responsiveness and quality (Platts & Probert & Cáñes, 2002), but there is a high requirement for strategic criteria as well, such as investment allocation, facilitated innovations and new product development. Therefore, outsourcing is a twofold topic: as a business management issue related to outsourcing decision-making and as a PSM issue related to the implementation of such decisions through an outsourcing process. The former is related to the EXPERT category of the business strategy capabilities in PSM, while the latter refers to the purchasing strategy, of which one element is outsourcing (discussed in the next chapter).

[58] The concept *dynamic resource* is not a radically new phenomenon while it has been used in the academic literature since the 1980s.

There are different kinds of tools that facilitate the strategy process and strategic management such as the SWOT[59] analysis or different types of scenarios. Indeed, one tool could be the scenario analysis[60], illustrating the potential alternatives as the worst case scenario, ideal option or the most probable choice (see e.g. Grant, 2002). Additionally, different types of SWOT analyses and other general tools can provide a comprehensive picture of PSM topics. While financial measures are clearly significant (as presented in the following chapters), new methods have emerged in the past few years to take into account a broader range of measures of which one is the Balanced Scorecard (BSC) that integrates financial and non-financial measures into management (see original idea of Kaplan & Norton, 1996). A typical scorecard may include at least four dimensions of financial, customer and internal processes with learning and growth, and each of these dimensions should define their goals and measures against today's trends as the evaluation of intangible, qualitative and non-financial sides of the organization on different organization levels, such as the entire organization, strategic business unit, individual operational units and separate individuals[61] (Assiri et al., 2006). The tools can be summarized: firstly, some tools are recognized by names without the knowledge of their content or usage (JUNIOR category), then, some tools that are relevant to the object can be used (SENIOR category), and finally, the tools are systematically applied and developed in one's own context (EXPERT category). It should be emphasized that the above-mentioned tools are approached from strategic management and business strategy views, while they can also be applied in the purchasing strategy as discussed in the following chapters.

4.3.3. Purchasing strategy – the elements, formulation and tools

Since the 1980s, the key assumption of the purchasing strategy has been that it should be developed and linked to the corporate strategy (see e.g. Browning & Zabriskie & Huellmantel, 1983; Caddick & Dale, 1987; Farmer, 1972; Spekman, 1981). The organization should manage

[59] The SWOT matrix about the strengths and weakness described as internal scrutiny and threats and opportunities as scanning the internal environment; in other words, what are the opportunities to exploit and what are the threats to be avoided or minimized (Lysons & Farrington et al., 2006).

[60] See e.g. Lysons & Farrington et al. (2006). Scenario planning consists of forming a conceptual forecast of the future based on given assumptions, resulting in different future scenarios. Assumption could be based on the investigation of trends relating to economic, political and social factors. Furthermore, the analysis offers advice on which scenario is most likely to occur and, thus, support the appropriate strategies to achieve it.

[61] See Assiri et al. (2006) for a comprehensive list of main evaluation criteria with their ranking as well as the main factors of BSC (ibid.)

their strategic management decisions (corporate strategy), supply markets (competitor and supplier strategies), financing resources (financial strategy) and operative operations (purchasing policies based on the organization's purchasing strategy). Therefore, the overall PSM strategy should include the philosophy of strategic, financial[62] and operative goals and responsibilities.

The evaluation categories with the key evaluation criteria for the elements of the purchasing strategy, its formulation and tools are i) **no knowledge/experience** (ROOKIE), ii) **recognizes the concept *purchasing strategy* and how the strategy will be formulated and further, recognizes the basic elements and basic tools by their names without active usage** (JUNIOR), iii) **knows and identifies the primary elements of the purchasing strategy and purchasing strategy formulation and, moreover, knows the most significant tools of which some are also implemented, but not systematically or continuously** (SENIOR), iv) **understands the formulation of the purchasing strategy process and the significance of the purchasing strategy that is based on the corporate strategy** (rf. PSM is involved in the top management decisions and strategy formulation) **and manages the comprehensive picture of purchasing strategy elements, such as buyer-supplier relationships, outsourcing, purchasing organization, supply channel issues and the question of domestic or overseas with the operative context of purchasing policy along with the utilization and adaptation of the selected tools that are systematically used and developed in their own context** (EXPERT).

This study defines the purchasing strategy as the organization's operative guidelines (purchasing policy), procedures (purchasing procedures), principles and routines to manage the daily activities to achieve strategic goals that are derived from the corporate strategy. The purchasing strategy draws a picture of entire supply elements, such as buyer-supplier relationships, outsourcing, the purchasing organization, supply channel issues and the question of domestic or overseas utilization and how to implement the issues on the operative level in accordance with the purchasing policy. Critical success factors related to the purchasing strategy are, for instance, the reduced supply base, total cycle time reduction, supplier relationships, total quality and total cost management (Lysons & Farrington et al., 2006). The concept of purchasing strategy is

[62] See e.g. Chen, Paulraj & Lado (2004) about the linkage between strategic purchasing, supply management (rf. limited number of suppliers, long-term orientation and communication), customer responsiveness and financial performance.

related to the JUNIOR category that recognizes the concept *purchasing strategy* and the basic elements of purchasing strategy formulation. Cousins (2002) proposes that the purchasing strategy is impacted by the organization structure, different relationships, cost-benefit analysis, skills and competencies as well as performance measurement. Furthermore, Cousins and Speakman (2003) argue that strategic development and alignment of the purchasing strategy are based on four levels: 1) purchasing skills and competencies, 2) performance measurement, 3) purchasing strategy and finally 4) corporate strategy. It can be assumed that some of these issues are also recognized in the JUNIOR category.

The purchasing strategy[63] contains at least the risk and cost-benefit analysis, make-or-buy decision, inventory and timing strategies, customer and supplier/partner portfolios, market knowledge and their integration into the business strategy. Cousins and Spekman (2003) also pointed out that strategic performance measurement (rf. organizational performance) should be focused on the strategic measures rather than the operative/tactical ones, such as quality, lead time and rejects. Quality is related to many different views in the PSM context such as strategic issues (rf. customer satisfaction and value adding) and the operative view (e.g. performance measurement). Thus, total quality management (TQM) is related to the corporate strategy as to how total quality is defined in the corporate strategy, how to pursue TQM-based goals and how the results should be evaluated, managed and developed. These elements, on the other hand, are related to SENIOR-level capabilities that encompass the primary elements of purchasing strategy formulation and its most important elements and, moreover, knowledge of the most significant tools of which some are also implemented, but not used systematically or continuously.

The role of the purchasing strategy should be based on the corporate strategy and, thus, the purchasing strategy should always be part of top management decisions. Gadde and Håkansson (1994) noticed that the purchasing strategy has become part of top management decisions and the analyses are focused on finding efficient supplier structures, forming alliances, developing mutual training programs and activating suppliers in technical development. Purchasing integration refers to the integration and alignment of strategic purchasing practices and goals into customer (cf. CRM), supplier (cf. SRM) and information (cf. IT) integration to design processes and purchasing practices (Narasimhan & Das, 2001). Value driven customer management was

[63] See for instance Cousins & Spekman (2003) about the key authors influencing the development of the supply strategy.

discussed previously. Supplier relationships and supplier relationship management (SRM) have a crucial focus in the purchasing strategy. Thus, classification of the PSM capabilities is a very essential part of controlling and allocating resources. Furthermore, in the purchasing strategy there should be strategic and long-term visions of IT in the PSM context as goals, visions and the comprehensive map of the connections to other functions with their function-specific strategies, but especially the purchasing strategy should state, what the tools of the purchasing specific IT solutions are. In other words, if necessary, organization specific IT tools and solutions should be developed to achieve the stated goals on every organizational level. The above issue are included in the EXPERT-level capabilities, such as understanding the formulation of the entire purchasing strategy process and the role of the purchasing strategy in business strategy goals and how to pursue them. The systematic measurement and application together with continuous development are necessary referring to the mission, goals, competitor analysis and cost management tools. Moreover, this EXPERT category is related to the implementation of the outsourcing decision. As was already pointed out, the role of outsourcing in the business strategy and strategic management is various. Implementing the outsourcing decision requires an overall approach to technology and manufacturing processes (rf. technology, equipment and technical support, skills, control of the process, capacity and quality measures), costs (such as production and acquisition costs), SCM (rf. supplier selection, collaboration with suppliers, delivery and inventory control) and a support system such as quality and information systems, training and agenda for continuous improvement (Platts et al., 2002). *Based on this, outsourcing should be part of the corporate strategy conducted by the corporate top management (participated by the purchasing function), while the purchasing strategy is related to the decision-making and implementation of outsourcing after the actual decision – whether to perform outsourcing or not – is made.*

There are different kinds of tools that facilitate the purchasing strategy and its formulation, such as the purchase portfolio, different kinds of (total) cost analyses[64], supply source evaluations, supplier metrics and demand and supply forecasting issues. The tools presented in the business strategy context are appropriate to purchasing strategy formulation as well. Thus, similar categories can also be used in this context. The tools can be summarized: firstly, some tools are recognized by names without the knowledge of their content or usage (JUNIOR category), then,

[64] The cost related and financial measures are presented in the following chapters about economic PSM capabilities.

some tools that are relevant to the object can be used (SENIOR category), and finally, the tools are systematically applied and developed to one's own context (EXPERT category).

4.3.4. Supplier relationship management (SRM) and supply market follow-ups

The literature on buyer-supplier relationships is overwhelming and perhaps one of the most cited in the field of PSM[65]. Since Leenders' (1966) work, the supplier relationships have interested numerous authors from many different angles. Supplier arrangements have been named in several ways depending on the field applied – usually marketing refers to the customer-supplier relationships, while PSM is more related to the buyer-supplier relationships and supply networks. There are also several definitions for different types of relationships as well as various selection criteria and requirements for the classification of supplier relationships[66]. Supplier relationship management (SRM) may also have a significant impact on the organization's financial performance and, moreover, a positive relationship between purchasing skills, strategic purchasing, the organization's performance and supplier responsiveness has been put forward (see e.g. Carr and Smeltzer, 2000). Supplier relationships have an important role in strategic purchasing and, thus, they also facilitate the organization's effectiveness, profits and value creation to customers. This study emphasizes the role of SRM in the formulation of the PSM capabilities because the literature has pointed out that SRM should be considered as an important factor in the purchasing strategy.

The evaluation categories with the key evaluation criteria for SRM and *the supply markets* are classified in this study as follows: i) **no knowledge/experience** (ROOKIE), ii) **recognizes the different types of supplier relationships by names**, but not their characteristics, and **the concept *supply market assessment* and some methods to supply market follow-ups** (JUNIOR), iii) **knows the principles of SRM and motives** to form and develop supplier

[65] For instance, Cousins (2002) summarizes the literature on relationships presenting the most common theories of the firm (e.g. TCE, RBV and their criticisms) as well as related to purchasing and supply. These issues are approached from marketing, strategic supply and supply chain management perspectives.

[66] For instance, Patterson & Forker & Hanna (1999) propose a transcendental relationship model, in which buyer-supplier relationships are grouped into three classes (p. 89); transcendental (strategic networks, clans with long-term cooperation, loyalty, high levels of commitment and interdependence as well as maximizing the relationship outcomes), transitional (strategic alliances, bureaucracies with mutual benefits, contractual and vertical integration) and transactional (arm's length, market exchange with distrust, negotiations of exchanges and maximizing own outcomes) relations.

relationships, **classifies supplier relationships as well as knows the most significant follow-up tools of which some are also used, but not systematically or continuously** (SENIOR), iv) **understands the entire concept of the strategic management of supplier relationships and utilization and adaptation of the selected tools with their systematic usage & development in one's own context** (EXPERT).

Already in the late 1980s there was a tendency from competition (usually called as arm's length relationship) towards single sourcing and loose alliances (e.g. Lamming, 1993). There are several classifications and names for the different types of supplier relationships, but this study presents a typology that includes the four levels that are most cited in the PSM literature: i) competition strategy (arm's length), ii) limited collaboration (preferred suppliers), iii) full collaboration (strategic alliances) and iv) networks[67] (supply networks). In the JUNIOR category the basic knowledge of supplier relationships is related to the types and names of these relationships, while the supply market assessment and follow-up refers to the methods of how to follow up and evaluate supply markets.

The SENIOR category is focused on the characteristics of different supplier relationships that can be classified into four categories: i) The advantages of *arm's length exchange* are connected to improved supply continuity and supplier appraisal effectiveness, such as price, delivery and quality. Multiple sources of supply provide alternative sources and increase the amount of information about market developments, whether commercial or technical. Above all, the use of multiple sources enhances the ability to take advantage of new technologies with new suppliers (Ramsay & Wilson, 1990). ii) The *preferred supplier* is the best choice, while there is a need for a restricted or limited number of suppliers (Cox, 1996). Thus, there are few suppliers selected by the buyer and the supplier base is narrower than in competitive relationships (Ellram & Edis, 1996; Hughes et al., 1998). iii) Further co-investments and joint activities are characteristic of *strategic alliances*. Originally, research on alliances and partnerships has begun from the outcomes of alliances[68] and their impacts on the

[67] See also the study of Pfohl & Buse (2000) about a typology of production networks such as the strategic network, virtual enterprise, regional and operative networks.

[68] See Ellram (1991 and 1992) to view partnering success factors, or Ellram (1995) to find partnering pitfalls and problems as well as success factors, or Virolainen (1998) to find motives and circumstances of partnerships, or Meade et al. (1997) to view justifications of strategic alliances and partnering such as to decrease R&D costs, gain new product market share, decrease development time and inventory and maintain long-term profitability.

organizations have been under investigation (e.g. Dussauge et al., 2000; Hagedoorn, 1993; Kogut, 1989, Lamming, 1993; Mohr & Spekman, 1994). These alliances are characterized with long-term commitment, trust, mutual goals, investments, information sharing, a win-win situation, cooperative and continuous improvement as well as sharing of risks and rewards (see e.g. Bhatnagar & Viswnathan, 2000; Bruce et al., 1995; Buono, 1997; Burnes & Whittle, 1995; Ellram, 1995; Ellram & Hendrick, 1995; Gentry, 1996; Hall, 1999; Lamming, 1993; Mentzer et al., 2001; Mohr & Spekman, 1994; Virolainen, 1998; Whipple & Frankel, 2000). Frankel, Whipple & Frayer (1996) summarized the key alliance success factors: trust, senior management support, flexibility, partner compatibility, sharing of critical information, clear and shared goals and meeting performance objectives, equivalent physical and human resource commitment, compatible IT systems, written agreement or contract and leadership. iv) *Supply network* is defined as the sets of supply chains, describing the flow of goods and services from the original sources to the end customers (e.g. Harland, 1996). The network literature is related to the activities of partner selection, resource integration, information processing, knowledge capture, social coordination, risk and benefit sharing, decision-making, conflict resolution and motivating (Harland et al., 2004). Major motivations to form supplier relationships include transaction costs[69], strategic behavior leading organizations to enhance their competitive position or market power or just mutual learning (Kale et al., 2000; Kogut, 1988). There are several issues such as dynamics and the development of trust in the relationships (e.g. Blomqvist, 2002; Doney & Cannon, 1997; Smeltzer, 1997; Zaheer et al., 1998), compatible organizational culture, prior experience of relationship formulation and management (Reuer & Zollo & Singh, 2002). On the other hand, the negative influences are poor communication, lack of top management support and trust and quality commitment that will assist the failure of the relationship (see e.g. Ellram, 1995). Several studies (e.g. Dyer & Kale & Singh, 2001; Kogut, 1989) have presented a review of alliance success rates and assumed that half of the alliances will end up failing for many different reasons. From these viewpoints, the SENIOR category refers to the specific professional knowledge on SRM and motives to form supplier relationships (cf. the actual decision of formulating strategic

[69]McCutcheon & Stuart (2000) have pointed out three major advantages of alliances: transactions costs (see also Teece, 1986), access to new/appropriate technologies and close relationship, which are the most significant advantages of numerous benefits. Towill & Naim (1993) further list that advantages for purchasers are related to improved quality, delivery on time, design cost reduction, lower inventories and reduced total costs. The advantages for suppliers are, for instance, long-term agreement, improved management capability, technology capability and financial stability.

alliances with the management and development of such alliances are related to the EXPERT category) as well as knowledge on the classification of supplier relationships.

The EXPERT category relates to the partner selection process and the measurement of the relationships because a strategic alliance is always a strategic management decision (participated by the top management). Indeed, the hot topic in the field of SRM has been the question of alliance dynamics and specific skills and capabilities (see e.g. Hamel, 1991; Nelson, 1991; Nelson & Winter, 1982; Reuer et al., 2002; Singh & Mitchell, 1996; Teece & Pisano, 1994) proceeding towards the alliance structure i.e. what distinguishes an alliance from other relational forms (see e.g. Ellram, 1992; Kogut, 1988; La Londe & Cooper, 1987; Spekman, 1988; Stuart, 1997; Teece, 1986; Williamson, 1985 & 1991) or alliance formation[70] and implementation (Ellram, 1991 & 1995; Ellram & Edis, 1996). The partner selection process has been presented by several authors such as Ellram and Edis (1996): i) the first step is the establishment of strategic needs, team forming and top management confirmation, ii) the next stage identifies the potential partners and their selection criteria[71], and iii) according to these criteria the potential partners are evaluated and selected, iv) to establish a relationship and finally v) the relationship is re-evaluated to compare the partner's performance with the expected performance levels (see e.g. Monczka & Trecha, 1988; Timmerman, 1986). It should be emphasized that the strategic PSM capabilities of supplier relationships also cover the more operative actions, such as the supplier selection process, which are discussed with the operative PSM capabilities. Whipple and Frankel (1998) suggested that alliance formation is based on three stages: strategic, process and operational levels. The strategic stage is focused on evaluating alliance success such as establishing initial and refined expectations, determining strategic expectations and assessing strategic effectiveness. The process level identifies stages of alliance formation and long-term maintenance such as need awareness, searching potential partners and then selecting the appropriate one and implementing the

[70] According to Ford et al. (1998, p. 29), relationships evolve in four stages: in the *pre-relationship stage* there is high inertia, and thus, organizations are seeking for new partners. The potential partners evaluate relational benefits, investments and learning. In this stage the significant requirement is achieving the atmosphere of trust. In the *exploratory stage* partners invest time in learning and distance reduction, even if there is no routines or commitment. On the contrary, intensive mutual learning and building trust through investment and informal adaptation are characteristics of the *developing stage*. The *stable stage* contains routines and the potential problems of institutionalization.

[71] Ellram (1995) presents a list of the most important criteria that impact the forming and maintenance of a successful alliance; mutual goals, information sharing and communication in the early stages of supplier involvement, top management support and partner will add value.

alliance formation. Operational consideration provides a view of how alliance success is achieved on the daily basis – by establishing search and selection criteria, determining operating standards and evaluating operational effectiveness. (Ibid.) Finally, all these three stages should be assessed to ensure continuous improvement.

Partner performance evaluation includes both the qualitative and quantitative measurement criteria as well as motivation with rewards and penalties if needed, different kinds of assistance like training, quality audits and mutual helpdesk or workshops and meetings. Dyer and Singh (1998) pointed out that a competitive relationship is focused on price, contract and minimal investment, while strategic alliances contain more substantial supplier assistance, investments, trust, and innovation capabilities. The performance measurement activities are related to partner characteristics and financial, economic, performance, technology, organizational, cultural and strategic factors. Choy and Lee (2002) propose the evaluation criteria for partner selection: technical capability (incl. delivery, product price, manufacturing capability and customer service), quality assessment (incl. management commitment, product development, process improvement and quality planning in supply) and the organization profile (incl. culture, sales, marketing objectives and financial status). Indeed, these requirements range from operational criteria to more strategic aspects like the strategic integration of partners and potential future business opportunities (see Appendix 5 that summarizes the criteria for evaluating supplier relationships to facilitate the supplier selection process and the performance measurement of the relationships). Burnes and New (1997) also pointed out that, while the strategic management of partner arrangements has increased (including the development of capabilities, cost control and mutual goals), the operative level is having difficulties and this, indeed, requires day-to-day interaction to develop trust, cooperation and openness. From these viewpoints, the EXPERT category refers to managing the entire SRM field, while the specific professional knowledge on SRM is integrated into the strategic management of the PSM capabilities.

The EXPERT category relates to the utilization and adaptation of the selected tools with their systematic usage & development in their own context. SRM tools are needed to develop such relationships. The basic tool in SRM is the purchase portfolio presented by Kraljic (1983) which asks how great a risk is acceptable and answers the question that the supplier mix,

extent of contractual coverage, regional spread of supply sources as well as the availability of scarce materials contribute to the organization's supply risk base. The purchasing matrix or the portfolio is based on Kraljic's (1983) four category model about the supply risk, significance of purchasing and role of profit. The four categories are leverage, strategic, bottleneck and non-critical products[72] (see also Lysons & Farrington, 2006). This is a strategic tool to evaluate purchasing products with the risks related to them as well as their profitability and significance. Thus, it will give a full view of the supply markets, such as suppliers, supply markets and availability issues. Based on these criteria this tool is selected into the purchasing capability matrix as the strategic tool while it gives answers to many questions and covers many fields of the subjects of this study. The SWOT analysis can also be applied to the PSM context (Lysons & Farrington et al., 2006); the strengths relate to the purchasing power, profitability and goodwill as well as regular demand; weaknesses are highly sensitive imported materials; threats refer to the competition for the material from competitors (cf. pooled purchasing), when there are only few suppliers available and prices increasing; whereas opportunities relate to the alternative materials and potential (new) suppliers, vertical integration with suppliers, outsourcing, partnerships and virtual networks. Furthermore, another method applied could be the scenario analysis as referred to earlier to identify the potential paths and opportunities of the forthcoming PSM issues. It could provide insights into the ideal path of the future, the most likely choice as well as the most unwanted or worst-case option. Based on these path options, a purchasing professional could plan and implement purchasing strategies to avoid risks and unwanted consequences (rf. presented in the SWOT analysis as threats and weakness) and to maximize and utilize potential benefits and advantages (rf. SWOT as to strengths and opportunities). A balanced scorecard can also be utilized in the SRM context to form the supplier and partner scorecards to evaluate their overall performance through financial and non-financial performance evaluation criteria. These supplier or partner scorecards can include issues such as strategic value about product and business process innovation and access to new markets, brand issues and reduction of risks, financial value referring to the price, total costs and investment increasing, operational performance related to quality, deliveries, service and support, flexibility and lead time and relationship quality including trust, communication, common goals, shared risks and rewards, mutual commitment and level of strategic alignment. The tools can be summarized: some

[72] For a more specific presentation of such a portfolio see Kraljic (1983) or Lysons & Farrington (2006)

tools to facilitate SRM and follow-up of supply market actions are recognized by names without the knowledge of their content or usage such as supplier assessment, price changes and total cost development, availability of critical materials and services, changes in general economic numbers and competitors (JUNIOR category); then, some tools that are relevant to the object can be used including both operative and strategic tools (SENIOR category); and finally, the above strategic tools such as SWOT, purchase portfolio and scenario analysis are systematically applied and developed to one's own context (EXPERT category). It should be noticed, that SRM should be focused on end customer value and actions that increase customer value for the organization.

4.4. Operative capabilities

Operative capabilities include routine, simple or day-to-day decisions which refer to the routine ordering and follow-up of basic operational supplies; in other words, operational activities are the management of supplier transactions, purchasing appropriate items, generating and speeding up material flows, providing feedback on supplier performance and using e-systems to obtain standard or indirect items through catalogues (Monczka et al., 2005). This study emphasizes the role of the entire supply process and supplier selection process with the assessment of service and quality issues as well as IT development. Indeed, this study is focused on the process viewpoint of the operative capabilities rather than the separate capabilities or sub-processes embedded in the supply or supplier selection processes. Operative capabilities are classified into three topics: i) the purchasing policy including the issues of assessing the purchasing service ability, quality and IT systems; ii) the purchasing process and tools; as well as iii) the supplier selection process and tools (see Figure 11).

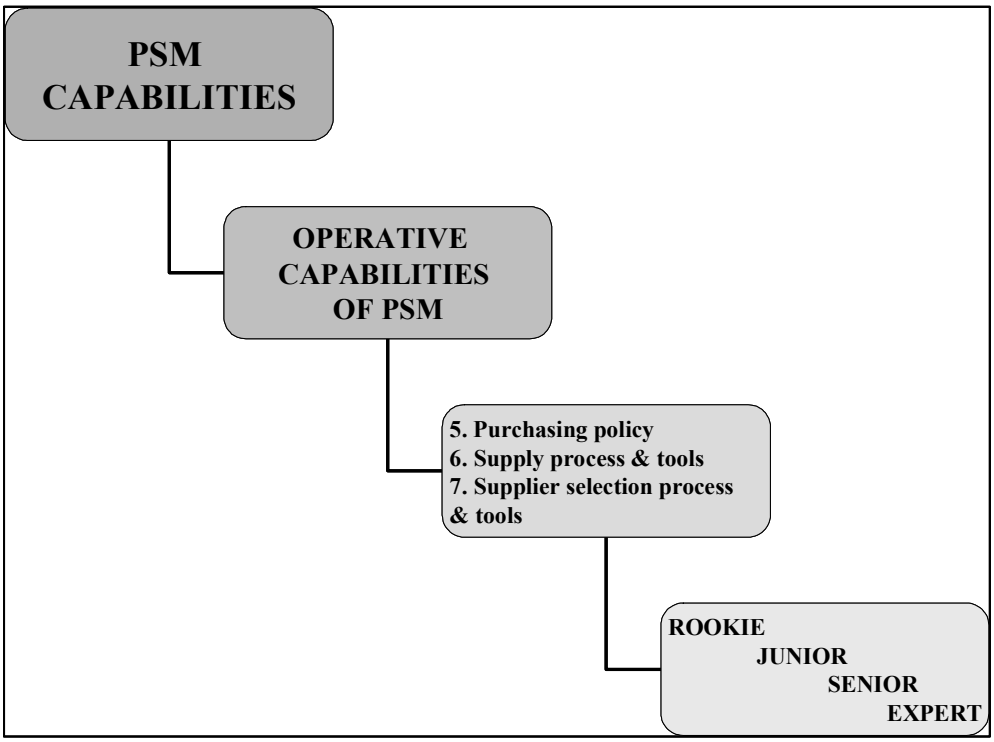

Figure 11. Operative capabilities of PSM

Figure 11 presents the operative capabilities in the context of PSM, and these capabilities are discussed in three categories. The first category is related to purchasing policy issues, such as what the purchasing policy is and why the organization should have a policy and some points about the evaluation of purchasing service ability, quality and development of IT. The next category refers to the purchasing process and tools to facilitate it. Finally, the third category is focused on the supplier selection process and supportive tools. Based on this, the classification of operative capabilities and the key evaluation criteria are presented.

4.4.1. Purchasing policy

Product and service quality, speed of responding to market changes, production efficiency and flexibility are used to assess the competitiveness of organization (Wu & Wang, 2007). However,

the decision-makers may not have a clear view of which role PSM has in their organization and how they support the organization's core competency. The purchasing strategy provides the long-term guidelines, visions and goals to pursue the corporate strategy statements concerning PSM. Consequently, the purchasing policy is formulated to state the operative means such as purchasing procedures and operative processes to achieve the strategic goals and visions.

The evaluation categories with the key evaluation criteria for the elements of purchasing policy are i) **no knowledge/experience** (ROOKIE), ii) **recognizes the concepts *purchasing policy* and *purchasing procedure* and the basic elements in the policy without their deeper content, but knows the content of purchasing procedures** (JUNIOR), iii) **knows and identifies the entire purchasing policy (including the elements, the formulation process and purchasing procedures) and how it is implemented in their own context** (SENIOR), iv) **understands the role of the purchasing policy as an operative part of the purchasing strategy and the means to achieve the strategic goals such as procedures and processes that are derived from the business strategy and, further, develops the purchasing policy if needed** (EXPERT).

The purchasing policy provides operative guidelines and directions to support the purchasing decisions and strategic management of PSM. The policies are, however, usually too broad and non-specific to be implemented in the daily operative routines and, therefore, some specific guidelines are needed for the purchasing procedures which include the operating instructions defining functional duties and tasks as well as a procedure manual that is focused on clear grassroots actions, namely, on how to perform things in daily work. The concept of purchasing policy is recognized in the JUNIOR category, but its deeper content is not acknowledged. However, the JUNIOR category is familiar with the purchasing procedures derived from the purchasing policy because the procedures are highly related to their own duties and performing tasks. Indeed, there is basic knowledge to perform own tasks based on the purchasing procedures that are derived from the purchasing policy. It should be pointed out, however, that even if the JUNIOR category recognizes the purchasing procedures, there is only little knowledge about the actual content of the purchasing policy and usually no knowledge of the purchasing strategy.

The purchasing policy defines purchasing issues (Monczka et al., 2005): i) the role of purchasing with the “functional” purchasing policy, ii) conducting of purchasing personnel, iii) social and minority business objectives, iv) supplier relationships and v) operational issues. The operative role of purchasing provides guidance to the daily implementation of the purchasing strategy in the purchasing function. This role includes the objectives of the purchasing function, purchasing authority, responsibilities and hierarchy that relates to the power and responsibility issues of the purchasing structure as to the centralization or decentralization and, thus, these issues can be concluded as the functional purchasing policy that outlines the responsibilities within the purchasing function as well as the relationships with other functions (Monczka et al., 2005) referring to the communication policy in internal and external contacts (van Weele, 2005). Thus, the purchasing personnel are guided by ethics in ethical purchasing behavior and reciprocity policies and also in supplier favors by the purchasing personnel and, further, the contacts and visits with the suppliers are guided along specific instructions or employees changing between the buyer and supplier. The third topic is related to the social aspect as to supporting and developing local sources of supply or awarding the supplier role to a qualified minority of suppliers which may shape good corporate citizenship and pursuing social objectives (Monczka et al., 2005). The fourth thesis defines the buyer-supplier relationships by describing the basic principles of supplier relationships, qualifications and selection of suppliers, purchasing contracts, problems and difficulties between the buyer and suppliers and other issues related to the relationships (Monczka et al., 2005) referring to the supplier policy as determining the sourcing policy and the improvement of supplier performance as well as product and supplier quality policy which refer to the supplier’s quality performance improvement and early supplier involvement in the development (van Weele, 2005). The SRM part of this study already discussed the strategic views, but this operative side prefers the supplier selection process as well as the purchasing process (rf. the following chapters on these two topics). The final point is operational issues referring to the purchased materials and services (Monczka et al., 2005) as well as materials cost policy to control and decrease material costs and prices (van Weele, 2005). These policies are related to different parts of PSM as well as different levels of the purchasing function. These elements are related to the SENIOR category, in which there is professional knowledge of the entire purchasing policy including the elements presented above. Furthermore, the purchasing formulation process that is based on the purchasing strategy is

acknowledged, at least partially. Moreover, the purchasing policy and purchasing procedures can be implemented in one's own work to follow the stated purchasing strategy goals.

Other significant issues are the quality and total quality management related to the purchasing ability and willingness to serve internal and external level customers. Thus, these issues are usually discussed on the strategic corporate level and in the strategic management of PSM. However, quality is also an operative issue and, thus, there should be principles to evaluate the operative level. Based on this, quality should be included in the purchasing policy. While total quality management (TQM) refers to this strategic level approach, the quality manual should be linked to the purchasing policy and procedures. TQM is part of the purchasing strategy referring to its strategic and long-term visions being included in PSM as goals, visions and relationships. Thus, the focus of the purchasing policy is to state the guidelines on how to implement and adapt the TQM views in the daily operations (see e.g. Hendricks & Singhal, 2001). Furthermore, these elements refer to the EXPERT category, in which there is understanding of the role of the purchasing policy as operative part of the purchasing strategy and the means to perform the policy requirements such as purchasing procedures. Indeed, professional knowledge is applied in one's own work context, and while the purchasing strategy provides the operative and managerial guidelines to the purchasing strategy elements[73], these elements are also fully understood on both the operative and strategic levels.

Among the high focus of quality, a more or less crucial topic is the IT solutions and their development especially related to the purchasing function. Intense competition, globalization, shorter life cycles and advanced IT functions will continue their development trends and, thus, the development of IT applications helps to ensure excellence and competitiveness (Sher & Lee, 2004). Therefore, IT is also part of this PSM capability matrix. It should be emphasized that there are three crucial points beyond this IT discussion. First of all, IT issues are discussed on the corporate level as defined in the business strategy as to what they are in the corporate context and how they should be evaluated, managed and developed. They should also be presented in the purchasing strategy as strategic and long-term visions of IT in PSM as goals, visions and the comprehensive map of such connections to other functions with their function specific strategies. Especially the purchasing strategy should state, what the tools of

[73] E.g. buyer-supplier relationships, outsourcing, purchasing organization, supply channel issues and the question of domestic or overseas as discussed in the purchasing strategy.

purchasing specific IT solutions are. In other words, if necessary, the organization specific IT tools and solutions should be developed to achieve the stated goals on every organizational level. Finally, the purchasing policy states the guidelines on how to implement and adapt the solutions in the operative management. This presentation truly emphasizes the role of IT as a top management decision in the corporate strategy implemented through different functional strategies and embedded in the organization's routines in function specific policies. Even if IT is utilized through the purchasing function, it also strongly relates to the strategic management decision (rf. EXPERT category about purchasing and business strategies), and moreover, the operative side (rf. purchasing policy) should be discussed in the EXPERT category which is presented above. It should be emphasized that the development process of the purchasing policy is also included in this category.

4.4.2. Purchasing process and tools

The organization should reflect on the level of wanted results and assess the evaluation criteria. Therefore, the criteria need to be well-defined to ensure valid results, and based on these results, if required to achieve new goals, the organization can change the direction of their actions. These topics refer to resource management. The organization should focus on building an appropriate resource base that supports their business strategy. The resource management process can be classified into four stages (Morgan, 2000): acquisition (extracting value from the resources and minimizing their cost), combining (assembling the diverse resources into attractive products), positioning (consumer opinions of the product) and maintenance/protection (resource updating). Resource management can also be used in the PSM context: efficient acquisition refers to the minimum/lower total costs (for instance ABC analysis, target costing and TCO methods) and value adding (e.g. supplier relationships and value nets); combining refers to the integration of supply chains (e.g. supply chain management and supplier networks); positioning is related to the customers (customer is in a key role also in the field of PSM and the purchasing process should be planned based on customer requirements and values); and finally resource updating relates to the development capabilities of PSM.

The evaluation levels with the key evaluation criteria for the elements of the suppler selection process and its implementation and evaluation tools and methods are: i) **no knowledge/experience** (ROOKIE), ii) **recognizes the concept *purchasing process* and some parts of the purchasing process and, further, recognizes some occasional tools** (JUNIOR), iii) **knows and identifies the entire purchasing process and several tools without (systematic) usage** (SENIOR), iv) **understands the impact of the purchasing process on PSM effectiveness and how the purchasing process affects the purchasing strategy (and especially vice versa) and the dimensions of other departments and processes; the used tools and how to adapt them systematically and continuously to own corporate context and environment** (EXPERT).

The purchasing process is defined as the process to perform the purchase of a selected item starting from the actual needs and specifications of the item and leading to the payment or performance measurement of the performed action. However, there are several different presentations of the purchasing process and, thus, it includes various names and stages depending on the view being discussed. The JUNIOR category relates to basic knowledge about the purchasing process and, thus, the concept and some stages of the purchasing process are recognized. These stages of the purchasing process are illustrated in Figure 12.

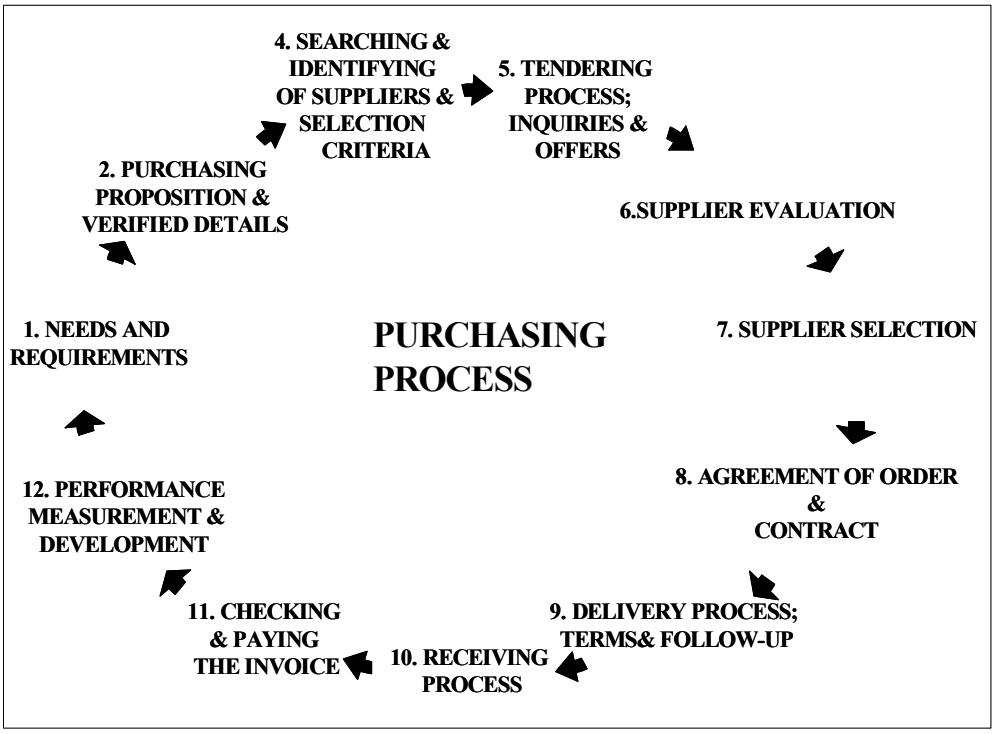

Figure 12. The purchasing process (slightly adapted from Monczka et al., 2005; van Weele, 2005)

As illustrated in Figure 12, the purchasing process includes 12 different stages. In this study the purchasing process is defined as the process starting with identifying the specifications of the purchased items based on customer (rf. internal and external ones) demand and requirements, continuing with supplier selection and logistics processes and leading to the payment of the bill with corrective actions and development of forthcoming purchases (not incl. strategic development issues). Consequently, the purchasing process is, according to van Weele (2005), divided into six steps: determining the specifications of the purchase order referring to the functional, technical, logistics and maintenance specifications and other inspection or quality assessment procedures and descriptions (rf. stage 3), selecting the supplier based on preliminary qualification of suppliers (rf. stage 4), preparing the request for quotation and analyzing the bids received as well as evaluating the actual supplier (rf. stage 6) and selecting them (rf. stage 7), closing a contract with prices and terms of delivery, payment

and penalty clauses together with other contractual issues, ordering related to order handling and delivery arrangements with accurate information and expediting the agreed delivery times and terms, follow-up and evaluation referring to the after-sales phase with the maintenance of documentation, reports and recording the user's experiences to support the vendor rating system (rf. stages 8–12). A similar illustration of the purchasing process is presented by Monczka et al. (2005) as concluding the purchasing process as follows: i) identification of the needs for the purchased item (rf. stages 1–3), ii) evaluating potential suppliers (rf. stage 4), iii) bidding, negotiation and supplier selection (rf. stages 5–7), iv) purchase approval (rf. stage 8), v) release and receipt of purchase requirements including invoice and payments (rf. stage 9–11) and finally vi) supplier performance measurement (rf. stage 12). At this level the tools refer to individual metrics and criteria, not the process measurement ones. It should be pointed out that the purchasing process is also highly linked to the other processes, such as material and capacity planning processes including forecasting, material sourcing and capacity management, the production process including inventory control and management and the actual production and production scheduling, the distribution process as delivery schedules, transportation and other delivery issues with customer service (Monczka et al., 2005). These relational processes are briefly touched in this study, even if they are not the primary focus of the study. While in the JUNIOR category the term *purchasing process* as well as some (separate) steps should be acknowledged, the SENIOR category is related to professional knowledge about the entire purchasing process as illustrated above. In the EXPERT category it is absolutely crucial to understand the impact of the purchasing process on the general effectiveness of PSM (not just efficiency) and how it impacts the purchasing strategy and especially vice versa.

There are different kinds of tools that facilitate the purchasing process and its evaluation. However, these tools are usually related to different topics rather than process evaluation. Thus, these individual tools are discussed in other categories, such as tools related to supplier selection are presented in the following chapters, while performance measurement is discussed in the context of economic PSM capabilities (cited also in different contexts along the study). Generally, time refers to process measurement. Benefits of the process development are the reduction of costs, improved product quality, innovations and product development as well as higher performance of supplier relationships. Time is an essential

element and, thus, the potential advantages reduce the overall lead time, the possibility of integrated innovations, information exchange, advanced tools and life cycles and standardization (De Toni & Nassimbeni, 2000). Integration of operational practices also includes production planning and scheduling (rf. integration of partners' production planning into the control systems and synchronization of contracting orders and scheduling activities) and deliveries synchroniszd with production requirements and packing (De Toni & Nassimbeni, 2000). Cost, efficiency, quality, lead time, service, flexibility, speed, customer satisfaction, value or reliability are used in the measurement of process performance (Kallio et al., 2000). The tools can be summarized as follows: firstly, some tools (e.g. metrics of logistics, payment, or ordering) are recognized by names without knowledge of their content or usage (JUNIOR category), then, some of the tools that are relevant to the object can be used (SENIOR category), and finally, the tools are systematically applied and developed to one's own context (EXPERT category). Indeed, the SENIOR category relates to the several tools used in data collection procedures and reporting systems, but the information is not utilized in planning, re-corrective measurement actions, management or in any other systematic way. Furthermore, the periodical data offered by the obligatory annual reports and indicators are not used in daily operations or strategic level actions. The EXPERT category refers to the tools that would show more comprehensive results than just individual metrics such as the purchase portfolio and value analysis that are continuously and systematically applied and developed in one's own context. Target costing can also be utilized in purchasing negotiations by providing suppliers with a target price[74]. However, it should be pointed out that the reliability of the entire supply network is increasingly important rather than the measurement of some separate indicators. At this point it should be noticed that many of the dimensions discussed above are also related to the supplier selection process and, thus, they are just referred to in this section rather than discussed thoroughly.

4.4.3. Supplier selection process and tools

There is a growing tendency to move away from traditional arm's length relationships towards more facilitative and integrative relationships. This change may mean difficulties in

[74] For a comprehensive presentation see the chapter about the economic capabilities of PSM.

the shifting from one type of relationship to another. Organizations deal with their supplier relationships and related capabilities in different ways, and the tolerance of different supplier types may also vary. Strategic alliances may play a major role in achieving competitive advantage and potential business success over competitors. The true leverage of supplier relationships is based on an understanding of what resources and capabilities, beyond cost advantage, can be leveraged to support the partners' strategic fit[75] (Speakman et al., 2000). The strategic significance of supplier relationships is presented in the forthcoming chapters and this part of the study is focused on the more operative or everyday side of the relationships with regard to the supplier selection process and tools to assess the suppliers performance related to the actual selection situation.

The evaluation categories with the key evaluation criteria for the elements of the suppler selection process and its implementation and evaluation tools and methods are: i) **no knowledge/experience** (ROOKIE), ii) **recognizes the concept *supplier selection process* and some parts of the supplier selection process and how it proceeds, and furthermore, recognizes some occasional tools** (JUNIOR), iii) **knows and identifies the entire supplier selection process and several tools and methods without their (systematic) usage** (SENIOR), iv) **understands the impact of the supplier selection process on purchasing effectiveness and how the selection process impacts the supply process (and vice versa) and the dimensions of other departments and processes with the used tools and how to adapt them systematically and continuously to one's own corporate context** (EXPERT).

The supplier evaluation and selection process has been claimed as one of the most important duties of PSM (see e.g. Monczka et al., 2005). At the JUNIOR level the concept *supplier selection process* would be recognized with some parts of it (e.g. supplier selection criteria or different sources) and how it proceeds. The supplier selection process is divided into six phases: identification of potential suppliers, determination of selection criteria, pre-evaluation on the basis of received offers and such criteria[76], negotiations and biddings and actual

[75] Zsidisin & Ellram & Odgen (2003) describe strategic supplier cost management activities using total cost of ownership analysis, supplier cost structure analysis and target costing approaches. Strategic cost management could also refer to partner arrangements and, thus, the total costs should be part of partner risk management. (See also Zsidisin & Ellram, 2001).

[76] Appendix 5 presents the summary of measurement criteria for the supplier relationships which can also be used as the supplier selection criteria depending on the type of supplier relationship (a competitive relationship

evaluation, supplier selection and supplier performance measurement and re-evaluation (slightly modified from Lysons & Farrington et al., 2006; Monczka et al., 2005; van Weele, 2005). However, this operative side is focused on these mentioned actions, while the strategic view of SRM is continuing this process of developing supplier relationships based on relevant measurement and re-evaluation implications. **S**upplier selection criteria are price and total costs comparisons with the terms of payment, discounts, delivery and handling, technical evaluation such as general suitability for purpose, ease of installation, estimated life, warranties, environmental issues, spare parts availability and service (e.g. Lysons & Farrington et al., 2006), quality as to the reputation on quality issues, quality assessments, standards and metrics, reliability, other supportive issues such as factory and stock locations, transportation opportunities and alternative choices (van Weele, 2005), motivation and skills of personnel on the supplier's side, references and previous experiences (one's own and others' such as partners'), organization specific analysis and credit rating with risk analysis. The SENIOR category is related to the professional knowledge of the entire supplier selection process including the knowledge of selection criteria.

Supplier development includes supplier selection (rf. supplier rating and ranking) and monitoring, assistance and training such as technical and economic support and mutual training, supplier incentives (rf. contractual incentives that should compensate the supplier for achievement such as the cost savings or quality increasing) and organizational integration related to open communication and integration of the partner's purchasing organizations as well as other related departments (De Toni & Nassimbeni, 2000). Building a close relationship with collaborative suppliers may demonstrate good performance levels in terms of reliability, price competitiveness, service support and technological capability that will facilitate long-term business success. Sadgrove (1996) argues that supplier assessment and audits will help the organization to assess the suitability of a new supplier and to evaluate the supplier's delivery reliability, management ability and flexibility as well as quality issues such as supplier audit checklist about processing equipment, equipment checks, process documentation, process systems and records, packaging handling, personnel training and products or services. The elements discussed above are related to the EXPERT category

---

is weighted by operative criteria such as financial and performance factors, while a strategic alliance is characterized by more strategic criteria such as organizational and cultural factors).

referring to understanding the impact the supplier selection process has on purchasing effectiveness and how the supplier selection process affects the supply process (vice versa).

Supplier selection should be focused on the amount of total costs including the losses of poor supplier performance, safety stocks, quality, inspections and possible production interruptions (cf. TCO) rather than just the purchase prices (van Weele, 2005). Such separate criteria are related to the JUNIOR category. Furthermore, the cost-benefit analysis is appropriate for operative decisions such as supplier selection decisions and assessments of different supplier selection criteria against the price and costs[77]. One sufficient tool is the *cost analysis* that breaks down the costs into specific categories of which the total cost can be formulated, such as general expenses and costs from labor, R&D, purchased materials and service, administration, deliveries and delivery channel fees, transportation, stock keeping and controlling, taxes and other legal fees as well as potential financial costs that together form the final price (Monczka et al., 2005). Cost analysis illustrates the different types of costs, their extent and formulation and, thus, it could be used in the comparison of inquiries based on the total costs of a purchased item rather than just the purchase price[78](van Weele, 2005). Supplier cost structure analysis is one application of this cost analysis. Supplier cost analysis includes performing breakdowns of supplier cost structures, encouraging suppliers to share cost information and developing systematic data storage systems used in previous assessments (Zsidisin et al., 2003). Moreover, both of these tools can be used in the negotiations about price changes (usually increasing) when splitting up costs and comparing if there are sufficient, true grounds for the increased price. If the supplier is aware of such actions, there would be only limited opportunistic behavior or none at all. Therefore, it gives a more comprehensive approach to supplier evaluation, supports the supplier selection and facilitates supplier improvements and development. The *learning curve* is related to task performing, since a task is performed better and faster over and over again until there are no further improvements and higher performance levels achieved though the repetition. For instance, cost reductions arise from such learning requiring less time, improved speed and proficiency (Lysons & Farrington et al., 2006; van Weele, 2005). Organizational learning can

[77] Discussed thoroughly in the next chapters of economic PSM capabilities.

[78] See also Porter (1985) about a very extensive classification of ten major cost drivers such as economies of scale, learning and spillovers, capacity utilization, interrelationships and linkages between activities, degree of vertical integration, timing of market entry, cost policy or differentiation, geographic location and institutional factors.

be identified as the execution of similar tasks repeated by a group of individuals [rf. collective learning rather than individual learning] and thus, the learned issues can be evaluated by using the learning curve method (Zollo & Winter, 2002), even if learning curve applications can be used more generally in price determination, to promote delivery times and support outsourcing decisions (Lysons & Farrington et al., 2006) as well as in the development of purchasing strategies (van Weele, 2005). The learning curve could also support the evaluation of the performance development of suppliers, as well as within the organization it could be used as evaluating the development of individual and organization performance. These tools above refer to the SENIOR category and can be partially applied in the context of the EXPERT category (e.g. supplier development).

The tools can be summarized as follows: there are some tools to facilitate the supplier selection process that are recognized by names without the knowledge of their content or usage, such as separate supplier selection criteria (JUNIOR category); tools that are most significant to one's own work are used, such as supplier cost structure analysis, supplier selection index and supplier rating (SENIOR category), and finally, tools are systematically applied and developed to one's own context, such as the learning curve (EXPERT category). There should be an understanding of the applied tools with the grounds for their selection and formulation**.** On the other hand, if required there is knowledge and understanding to develop them systematically and continuously in one's own corporate context. At this level the role of other requirements that could impact the supplier selection process and its performance should also be understood.

4.5. Economic capabilities

Traditionally, financial issues have been more emphasized by the accounting and administrative departments and financial services rather than the purchasing function. The linkage between the purchasing function and accounting and finance is in cost accounting information, payments, outsourcing decisions, capital equipment acquisitions and financial tools such as total cost analysis and accounting data integration via IT systems (Monczka et al., 2005). Indeed, this line of thinking has occurred (and the Author argues that still occurs in

some occasions) in PSM discussions as the term *financial* is associated with the price of purchased items (i.e. how to finance the costs) or investments (i.e. how to finance the investments). This study defines the concept of economic capabilities in a more strategic way referring to the role of PSM in corporate effectiveness, (strategic) cost management as well as different kinds of financial planning and reporting systems that offer data for strategic planning and long-term evaluation rather than just mere financial capabilities. Therefore, in this study the economic capabilities of PSM are divided into two categories (see Figure 13): i) cost management and cost management tools with financial planning and reporting and ii) the economic role and impact on corporate profits. Operative and strategic goals and capabilities are embedded in both of these categories.

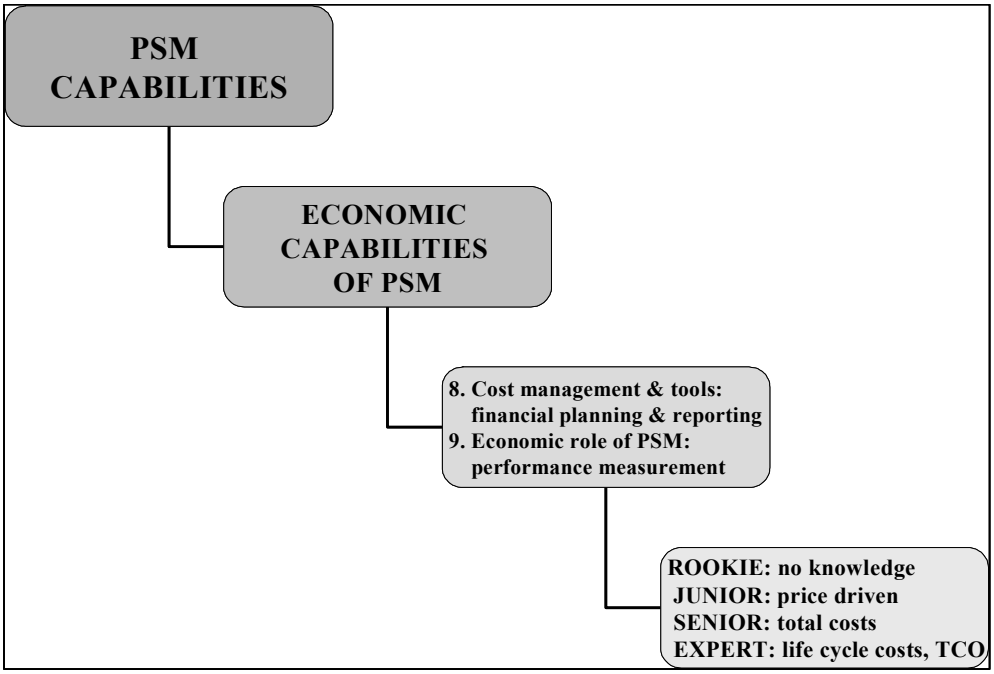

Figure 13. Economic capabilities of PSM

Figure 13 illustrates the economic capabilities in the context of PSM and divides them into two: Firstly, the cost management and tools related to this topic are presented. Furthermore, the role of the financial planning and reporting are discussed along their impacts on PSM and

vice versa. Secondly, the economic role of PSM is put forward and how PSM impacts the corporate strategy, in particular the corporate profitability. After this classification of economic capabilities, the individual key evaluation criteria for the two classes are presented from ROOKIE to EXPERT levels. Figure 13 presents the most significant criteria related to cost management and financial planning and reporting (rf. category 8 of sub-capabilities) through the price driven, total costs and life cycle costs referring mainly to the total cost of ownership model (TCO). Other evaluation criteria are also presented.

4.5.1. Cost management and evaluation tools - the role of financial planning & reporting in the PSM context

Usually it can be said that the term *cost* may be seen as an operative issue, and this is especially true in PSM as referring to the cost of the purchased item. Numerous previous studies have investigated target costing, TCO and supplier cost structure analysis[79] that are related to the strategic cost management viewpoints due to their ability to support organizational activities such as outsourcing decisions, alliance formation with suppliers and PSM integration into other organizational functions (e.g. Burt & Dobler & Starling, 2003; Ellram & Siferd, 1998). In a world where everything is changing, there is a high requirement to be ahead of others or at least foresee upcoming changes. Generally, gathering and sharing information between parties through target costing, TCO, and different kinds of supplier analyses facilitates the creation of unique and valuable knowledge resources that are difficult to duplicate by competitors or other organizations (Zsidisin et al., 2003). Therefore, cost management defined in this study also includes the operative measurement of (total) costs as well as the strategic view about how to manage the costs in the most effective way and what the means are to decrease or balance these costs comparing the value achieved from the purchased items. Furthermore, this study uses cost management tools that are managerial such as TCO, total cost, ABC and value analysis rather than measurement ones (rf. next chapter presents the criteria for PSM measurement). In other words, this study emphasizes both of these sides: costs referring to the operative side as well as management relating to the strategic side of cost management, but not the performance measurement indicators.

[79] Cf. value analysis in the next chapters.

The evaluation categories with the key evaluation criteria for the elements of cost management and cost management tools and methods are: i) **no knowledge and/or experience** (ROOKIE), ii) **recognizes some elements of financial planning (price driven) and basic cost management tools by names without usage and implementation** (JUNIOR), iii) **knows and identifies the most significant elements of financial planning and management (total cost approach) and the most significant tools and use some of them** (SENIOR), iv) **understands the cost management issues such as profitability, life cycle costs (rf. TCO) and cost management goals, budgeting and reporting and the strategic content of financial planning and integration into other functions as well as the strategic content of the tools with their systematic and active usage and implementation along with adaptation and development to one's own organization and its environment** (EXPERT).

Purchasing costs have an important effect on profits while they are typically averaging approximately 50–70 per cent of turnover[80] (van Weele, 2005, p. 16). Already Farmer (1972, p. 11) pointed out that the cost of materials and services is more than 50 per cent. It should be noticed that in rare cases there is only the price to pay instead other additional or (in)direct costs[81] such as delivery support and service, spare parts and costs. One essential factor is also the time perspective. First of all, price comparison and evaluation takes time, but even more time is spent, if this stage is poorly or hastily completed, because the costs increase enormously in the later stages of the supply process as well as in the entire value network. Therefore, the price is just the tip of the iceberg (e.g. Koskinen et al., 1995). The JUNIOR category relates to price and partial cost (not total costs rf. the SENIOR category) recognition and some elements of cost management and financial issues. Indeed, costs are treated as individually based on the price of the purchased item. In other words, there is no knowledge related to costs integration to form the total costs of the purchased item. Furthermore, the

[80] For instance in the beginning of the millennium, the purchased component constituted over 55 per cent of the sales dollar in many manufacturing industries (Easton et al., 2002, p. 123).

[81] Direct costs are materials, expenses and direct pays that can be allocated to a specific cost unit or purchasing department (Lysons & Farrington et al., 2006) and therefore, savings would be achieved through purchasing department efforts. Indirect costs are all the material costs (cf. poor quality and customer satisfaction), labor and expense costs that cannot be identified as direct costs (Lysons & Farrington et al., 2006) and thus, savings would be achieved by the users, but measurement would be difficult.

basic knowledge of some managerial tools is required. The tools are recognized by names rather than their content and, thus, there is no knowledge of their content or usage.

These issues are related to total cost management required in the SENIOR category. Thus, there is professional knowledge related to the financial planning and reporting in the PSM context. Furthermore, the most significant elements of financial planning and reporting are identified with the usage of some tools that relate to one's own work. These tools are presented below, but it should be emphasized that they are not systematically used or adapted by any means (cf. the EXPERT category). Many tools can also be characteristic of the SENIOR and EXPERT categories, but it depends on the level the tools are applied in this context.

Total cost analysis examines the purchase price including transportation, inventory, ordering, receiving, quality, returned goods and other costs (Lambert & Burduroglu, 2000). Price and related cost are also considered in the analysis and, moreover, profits can be improved by reducing total costs (Lambert & Burduroglu, 2000). *Value analysis* is a systematic method to evaluate all the costs that are not necessary to enhance product value, performance or increase customer purchasing willingness, in other words to measure the elements that truly create value against the costs they cause (Lysons & Farrington et al., 2006). Value analysis provides a foundation for price negotiation, especially decreasing the purchasing price (Lysons et al., 2006) and can be used in many ways in the supply process to negotiate with suppliers (especially quality and cost issues) as well as in the supplier selection process to evaluate potential suppliers based on the value and costs they perform. *Activity-based costing* or the ABC analysis is focused on the activities that really affect costs such as purchasing volumes and acquisition prices (van Weele, 2005). Thus, it can also be used in the PSM context to evaluate suppliers, products and lead times referring to the effectiveness achieved from the classification (rf. cost decreasing to identify which are the most significant products, their volumes and profits to focus one's efforts on). Thus, the ACB analysis is a very useful tool, especially in inventory planning and management (Koskinen et al., 1995) referring to the SENIOR category, but can be partially used in the JUNIOR category, but then the data is not systematically used in short or long-term planning. Furthermore, it is a supportive tool for

outsourcing decisions, total quality management and total costs assessments (Lysons & Farrington et al., 2006) which mainly relates to the EXPERT category.

Cost-benefit analysis compares the costs of used resources with other indirect costs such as pollution or environmental damage to the value of the financial and non-financial benefits achieved (Lysons & Farrington et al., 2006). Cost-benefit analysis often involves trade-offs leading to the decision, how to balance the costs, quality and selling prices with the organization goals related to the sales quantities and profitability (Lysons & Farrington et al., 2006). Cost-benefit analysis is appropriate for operative decisions, such as supplier selection decisions (cf. assessments of different supplier selection criteria against the price and costs) as well as a strategic method referring to the long-term optimization of the total cost and benefits/value of the purchased item (ct. the TCO model). Thus, it can also be used as a supportive tool to evaluate strategic costs and, therefore, can be used in decision-making situations such as outsourcing and long-term collaborative supplier relationships. *Target costing* focuses on developing and producing items that can be traded at a reasonable profit considering the features of customer desires and related costs (Zsidisin et al., 2003). Thus, it is a proactive tool and emphasizes forward views; not only the costs of design and development are revised but also the life cycle of a product or service (Lysons & Farrington et al., 2006; Zsidisin et al., 2003). Target costing is associated with the search for competitiveness by manufactures and service providers and, thus, can be utilized especially in purchasing negotiations by providing suppliers with a target price that the purchaser is ready to pay and how to achieve the target price level (Lysons & Farrington et al., 2006). Based on this, target costing is a tool to facilitate the cost management views, but also to support supplier selection and negotiations (rf. operative capabilities). The tools discussed above are usually related to the total costs of purchasing and, thus, they are related to the SENIOR category.

One application tool is focused on the total costs of the entire product life cycle that is related to the EXPERT category only. *Total Cost of Ownership* (TCO) refers to all the costs related to the acquisition, use and maintenance of the item, not just the purchase price (Ellram & Siferd, 1993). The TCO model was originally presented by Ellram (1993) who broke the costs

down into three broad categories: pre-transaction, transaction and post-transaction costs[82]. The first category is the costs of demand identification and setting the specifications on the requirements, exploring the different types of supply sources, acceptance of the sources and adding a supplier to the system and development of supplier collaboration. These costs will occur even if this does not proceed to the purchasing decision and, further, this level could take time and lots of effort without any guarantee of the results; in other words, the organization could be wasting time and effort in assessments and data collection, if the purchase process does not proceed for one reason or another[83]. The actual transaction costs are direct costs of the purchased item, such as price, ordering, delivery and transport, customs, invoices and payment, inspections, complaints and if required sending back the defective items, follow-up and reporting. Pre-transaction costs occur if the production will be interrupted, if there are defects in the end-products or failures in service support and if there are product liability issues and environmental problems such as pollution. This TCO model is recommended especially in the acquisitions of capital equipment while the buying decision should be balanced against the life-of-type costs, rather than the price only (van Weele, 2005). TCO is a significant tool for supporting strategic cost management requiring information sharing and openness between parties (Zsidisin et al., 2003). Based on the cost management approach with the strategic viewpoints discussed earlier, TCO facilitates many dimensions, such as supplier negotiations, by providing valuable information, the supplier selection process and their performance measurement (rf. mostly to the operative view of SRM), and thus, it rewards the suppliers their good performance to develop their actions even further and could, therefore, also facilitate the formation of strategic alliances, the process of new products and innovations and resource allocation by decreasing the number of suppliers. One comprehensive cost management approach could be the *spend analysis*[84] which is a process rather than a traditional cost driving tool and identifies the cost reduction points, in other words, how much the organization is spending and with whom to facilitate management decisions, continuous improvement and development actions as well as planning and budgeting as to determine where the money will be spent (e.g. cost drivers as prices of the

[82] See also Monczka et al. (2005, p. 365) about building a TCO model through six steps.

[83] Cf. sunk costs that are permanently sacrificed costs (see definition e.g. Ståhle et al., 2002) based on the transaction cost theory (e.g. Williamson, 1985).

[84] Further, successful spend analysis is characterized by four processes (Makhija, 2006, p. 16): those that integrate the data (collect information), organize the data (cleaning data to eliminate duplicative information), classify the data (through the coding system) and finally analyze the data (spend is broken down into spend by vendor, department, geographic location and any other requirements).

purchased item, freight costs, inventory and other related costs) and what the organization can do to leverage spending to gain the most competitive pricing and terms with suppliers (Makhija, 2006; Reese, 2005). Therefore, spend analysis applies to the cost and activity analysis (Reese, 2005) as presented above with the total cost analysis, TCO and the ABC analysis. However, spend analysis is also related to strategic purchasing and sourcing decisions and, further, it can facilitate controlling ongoing costs and demand. It refers to supplier choices and is a tool to support the management team in being proactive to maximize the valuable resources (Makhija, 2006); the latter point highly refers to the RBV of VRIN attributes, especially to the rare and valuable resources. These points refer to the understanding of the strategic content of the tools and how to use them systematically in strategic planning as well as daily basic assessments. Their active usage indicates that the tools are part of re-corrective actions if the results show some unwanted trends and, thus, need for development, not just reacting to the results, but being proactive, if possible, to avoid mistakes in the future. All these above topics refer to EXPERT-level capabilities with today's tools for tomorrow's advances and potential savings.

It can be highlighted that the price driven tools are related to the JUNIOR category, the total costs refer to the SENIOR category and the life cycle costs are the focus of the EXPERT category including the TCO model and spend analysis.

4.5.2. Economic role and performance measurement of PSM

Despite the greater exposure of strategic purchasing management among the business leaders, there is still a lack of strategic focus and, thus, many organizations may still think and act beyond performance metrics based on price driven arguments (Cousins & Spekman, 2003). Purchasing performance is considered a significant dimension of corporate performance, while there is need for valid measurement criteria and adequate methods for comprehensive measurement of overall performance (Easton & Murphy & Pearson, 2002). In the PSM context, effective cost management and corporate financial success are vital to the organization's entire business success (Zsidisin et al., 2003). This is a very important point to be also recognized by the top management not only as purchasing professionals. Thus, the

role of PSM should be a strategic focus as a profit maker rather than an operative function with the focus on costs. This is the leading reasoning of this study. **PSM performance should be measured to expose the entire costs of PSM and while the costs are measured, they can be managed through i) the operative, daily basic cost drivers (guidelines provided by the purchasing policy), ii) the strategic, managerial cost drivers (guided by the purchasing strategy) and finally, iii) the dynamic cost drivers that are based on the business strategy. Thus, the economic significance of PSM can be measured through these cost drivers and it can provide the potential for profits, without selling more or implementing any cuts, by decreasing the purchasing costs.**

The evaluation categories with the key evaluation criteria for the elements of economics and impact on corporate profitability together with performance measurement and financial goals in financial planning and reporting in the field of PSM are: i) **no knowledge and/or experience** (ROOKIE), ii) **recognizes the impact of purchasing in the economic context (rf. mainly to the purchasing costs), but cannot recognize where and on what level the influence is; recognizes only the price of the purchased item and some of the measurement indicators without knowledge of their formulation** (JUNIOR), iii) **knows and identifies the profit impact of purchasing, total costs of the purchasing, as well as uses several performance indicators of PSM** (SENIOR), iv) **understands the components that impact purchasing effectiveness, profitability and capital investments, and how one's own efforts and actions impact such issues; analyzes total costs through the product life cycle as the TCO analysis; formulates and develops performance indicators and understands how the indicators affect the management through the indicator system, which includes performance measurement data collected from different parts of PSM by measurement index and, thus, is a significant part of strategic and operative planning** (EXPERT).

At the JUNIOR level the impact of PSM in the economic context should be recognized about the role of purchasing costs, in other words, the amount of purchasing costs and their accumulation. This level cannot, however, recognize how the costs can be cut, controlled and managed while there is no big picture of the costs and their influence on corporate profitability. Furthermore, at this level some elements of financial planning should be

recognized, such as cost related goals based on the purchasing strategy and implemented through the purchasing policy and some measurement indicators without the knowledge of their formulation.

There is a connection between financial performance and effective implementation of TQM that is related to three primary dimensions – the costs of quality, total customer satisfaction and organizational learning and further, organizational characteristics[85] – that may moderate the benefits of TQM implementation (Hendricks & Singhal, 2001). Thus, TQM is a quality and cost management[86] tool as well as a strategic method to evaluate customer issues based on long run satisfaction. Accountability is related to the purchasing function's responsibility to achieving specified goals (Carter & Narasimhan, 1996) and attaining performance standards and expectations (Zsidisin et al., 2003). PSM has a significant influence on corporate competitiveness and profitability as investigated and pointed out earlier with strategic capabilities, but in this context the influence is focused on economic viewpoints. For example, a reduction of purchasing costs by 5 per cent enables operating profits to be increased by 40 per cent (Tayles & Drury, 2001, p. 605). Supply chain costs are derived from the business process, procurement, production, inventory carrying and storage handling and distribution costs (Lysons & Farrington et al., 2006). At the SENIOR level the profit impact of purchasing should be identified, in other words, how purchasing costs affect corporate profitability and effectiveness with regard to profitability ratios[87] such as business profit, net profit margin, return of assets (e.g. ROI return of own investments, ROA return on assets or ROCE return of capital employed) and lead times without the knowledge of their formulation or adaptation. The actual measurement process and elements of the ratios and their implications on the PSM and corporate effectiveness or profitability are not covered in this study.

At the EXPERT level there should be understanding of all the components that impact purchasing effectiveness, profitability and capital investments and how one's own efforts and actions influence them. In the past, the purchasing function could not be compared to other departments because comprehensive performance data was difficult to obtain, and even if it

[85] Such as organization size, the degree of capital intensity, the degree of organization diversification, the maturity of TQM implementation and the timing of TQM implementation (Hendricks & Singhal, 2001).
[86] See next chapters on operative capabilities and the relationship between TQM issues and the capabilities.
[87] See for instance Lysons & Farrington. (2006) about the different types of profitability analysis, their formulation and equations applied in PSM.

was available, there were no methods to measure the data and, moreover, many purchasing measures ignore the efficiency or productivity aspect of performance such as supplier quality in the purchasing budget (Easton et al., 2002). Today, PSM is part of strategic management including strategic cost management, financial planning and purchasing budgets that are integrated into other functions' budgets and strategies, and together they are based on the corporate business strategy. Furthermore, along such a strategic approach there should be the operative side, such as cost drivers and financial reporting, that demonstrates how these goals are met and how they are followed. Therefore, at the EXPERT level the topics of strategic content of financial planning of PSM should be considered, such as profitability achieved through PSM effectiveness, life cycle costs (cf. the TCO model) and strategic cost management goals with the PSM budgeting and reporting (rf. strategic views). The operative side also includes the cost drivers and ratios with their formulation and development. These indicators are collected in the performance measurement system, which includes performance measurement data collected from different parts of PSM. This "storage" of performance levels is a significant part of strategic and operative planning by providing appropriate data, statistics and follow-up reports to develop operative efficiency as well as strategic effectiveness and profitability on the PSM level as well as the entire organization.

4.6. Discussion about the revised PSM capability matrix

This study discusses three PSM capabilities. *Strategic PSM capabilities* are related to value networks, customer and supplier relationships management (incl. the supply market) as well as to general and purchasing strategies. Why then have these two topics – value network thinking and customer relationship management (CRM) – been combined in this revised version? Organizations are focused on value creation through intellectual activities that are derived from learning capacity, innovations and R&D management to add value to the end-customer. This is the justification for the integration of the value adding issues and the customer viewpoint, the former refers to creating value to the customer through value networks implying a more purchasing-oriented view such as buyer-supplier relationships in a broad context while the latter emphasizes the marketing and customer side of the coin, such as how the end-customer is considered in all the business efforts (also on the PSM level) starting

from the business plans, strategic management, organizational structures towards operative policies and routines. The ultimate goal of PSM is to improve end-customer satisfaction not only by the means of cost reduction and increased quality, but also by ensuring the world-class suppliers to leverage their skills and capabilities to bring value to the customers (Cousins & Spekman, 2003). Organizations are moving away from the management of material flows towards the management of supply processes (Cousins & Spekman, 2003) and even further, to the management of value-driven supplier networks. It can be argued that *operative capabilities* contain many aspects of strategic capabilities in general relating to the strategy process and corporate strategy with a strong linkage to the purchasing strategy – as it should be. Nevertheless, they are not as operative as could be assumed, while there is discussion about the terms *operative* and *operative capabilities*. Finally, the *economic capabilities of PSM* are approached from strategic and operative viewpoints. It is argued that the resource-based view (RBV) relates to the total cost of ownership (TCO), supplier cost structure analysis and target costing (Zsidisin et al., 2003). Furthermore, cost management relates to both the HRM[88] and the knowledge resource issues of RBV (Zsidisin et al., 2003). The cost management tools are connected to the RBV and dynamic capability view because the tools have to be developed and they have to evolve in the ever-changing business environment sometimes even in very fast cycles. Moreover, it has been demonstrated that the concept of *costs* is a very broad one encompassing the price issues of purchased items as well as the total costs over the product life cycles (TCO) and even a more strategic approach, strategic cost management referring to the topics of outsourcing, collaborative supplier relationships and continuous performance evaluation and in general, development actions to manage costs to achieve higher effectiveness and increase profits.

[88] According to Zsidisin et al. (2003), HRM capital may provide theoretical insights into the strategic cost management of PSM.

5. IMPLEMENTATION OF THE CONSTRUCT – PRESENTATION OF THE CASES AND THE EMPIRICAL RESULTS

The methodological discussion of this study presents the basic framework as well as describes the research process with data collection methods and analysis. As a constructive case study, this study uses the data collected in the PSM research project in the Lappeenranta University of Technology (LUT) discussed previously. The focus is on the PSM capabilities and, therefore, *the purpose of this study is to define what the purchasing and supply management capabilities are and how they can be evaluated.* Two case organizations from the Finnish food industry are used in the implementation of the construct of this study – the PSM capability matrix. The empirical implementation of the PSM capability matrix is focused on the case study method referring to the collection and analysis of data, whereas the constructive approach was assumed in the development of the actual construct. Thus, the implementation of the construct will be demonstrated in this part of the study.

The empirical part of the study begins with a broader discussion of the data coding and analysis that were presented briefly in the beginning of this study. The business environment of the case organizations is illustrated by presenting the characteristics of the Finnish food industry and the actual case organizations. Indeed, the organizations have several different types of buyers and, thus, they should be classified into specific roles to define the ideal levels of PSM capabilities. Furthermore, the role of responsibility and participation in the organization's processes and decision-making in the context of the purchasing function as well as their impact on these IDEAL levels are discussed. Then, the results of the classification in the case organizations are presented. The actual testing of the PSM capability matrix is implemented by presenting the results of the case studies. Finally, these results are analyzed and summarized discussing the gap between the ideal and realized levels of PSM capabilities. The next part of this study (rf. Chapter 6) is focused on the synthesis that illustrates the linkage between these empirical results and the findings from the literature, forming a deeper argumentation and discussion for the study framework.

5.1. Discussion about the data coding and analysis between the PSM research project and this study

It should be emphasized that the data used here was collected in the original PSM research project and the data collection process was discussed in the study origins. Before the presentation of the data coding process, a brief summary of the data collection process is in order. In other words, firstly the original data of the PSM research project is presented and secondly, the processes of data coding and analysis used in this study are discussed.

Firstly, the *data collection and coding were conducted in the PSM research project at LUT*. Interviews were necessary to form a picture of individual PSM capabilities that are part of organizational capabilities. Indeed, data was collected from interviews (with 18 interviewees) that brought forward the distinctive characteristics and roles of buyers. Representatives were selected based on the proposal of the case organizations who participated in selecting the interviewees because they have a comprehensive picture of their organization structure, including the personnel with their roles, tasks and duties. However, the selection criteria were stated by the research team requiring that the interviewees should be i) from different levels of the organization, ii) both professional and non-professional buyers and iii) willing to participate in this research. The first requirement was covered because the interviewees were from different levels of the organization representing the organization's management and operative levels. The second argument was related to the tasks and roles the interviewees were performing. There were interviewees from the purchasing function that were mainly performing purchasing issues, but there were also interviewees from supportive fields who were only performing purchasing issues as their secondary or supportive task, while their primary focus was in other function tasks. The third requirement referred to the interviewee suggestions and motivation to be a target of investigation. In other words, the interviewees were informed and motivated to participate in the research by the case organizations. At the end of this selection process, five interviewees were identified from the first case organization and thirteen interviewees from the other one. According to the basic principle of research implementation referring to the anonymity of the interviewees, the individual results were only informed to the interviewee and the summary of the individual profiles was only presented to the organization investigated, not to others. The organization itself was

responsible for distributing the research findings within the organization. On the other hand, there was a workshop, in which both organizations participated and where the summaries of the results were presented and discussed. However, only the summaries were under examination while the individual profiles were not covered.

It should be emphasized that all the roles of purchasing are not covered in each buyer profile category. This could imply that there were mistakes in conducting the interviewee selection. However, this selection was the result of different organizational characteristics. There are different types of purchasing and supportive functions with their sizes and organizational structures as well as differences in the internal roles. *Therefore, there were no representatives in the buyer profile of Buyers (professional) within the case organizations or Buyers (non-professional) within Case Organization 1.* However, these profiles are needed and required, even if no representatives were found in these cases. This study was only implementing the matrix (including the profiles and evaluation categories) and, thus, there was no requirement to find a representative for each profile. While this is a universal matrix, it cannot be assumed that each category would be represented in every investigated organization. Interviewees participated in the purchasing of the organization's product or service groups. They presented different types of purchasing roles: i) others working primarily in the purchasing organization responsible for the purchasing issues (substance buyers) and ii) others being secondary buyers (non-professional buyers). The data coding was conducted in the PSM research project by the Author and the research team referring to the definitions of the IDEAL-level requirements. The data collected in the interviews was written down literally word for word which was very useful in the data coding process and facilitated the classification of the data (see Appendix 2). In the PSM research project, the first level data coding was based on the job title of the interviewees (e.g. Sourcing Director, Supply Manager, CEO, Area Manager or Product Manager). Thus, the interviewees were classified according to their titles in the organization. Based on this, the interviewees were classified into two categories of professional and non-professional buyers. This classification was, however, too broad and a more sophisticated one was required.

The data coding of this study was evolved from that of the original project described above. The classification presented above was important. However, even a more significant criterion

for the revised data codes was the job description of the tasks and work the interviewee is performing in the organization. Therefore, the data coding of this study also applies supportive material to form the revised buyer profiles. The supportive material is collected from the pre-questionnaires (see Appendix 1) referring to the questions pertaining to the interviewee's role in the organization and within the functional team, performing of tasks, participation in the different processes and projects as well as the organizational characteristics. This deeper classification is required, while the interviewee may perform a wide range of tasks that are not investigated otherwise and, thus, a title could only refer to a part of the actual work. Furthermore, it is needed to avoid mistakes, if there would be changes in the organization structure without updating the titles. Then, these two roles were classified into seven narrower types: there were three different types of professional buyers and four different types of non-professional buyers. It should be emphasized that similar categories were discussed in the original PSM research, but these seven categories were not derived from the literature as they are in this study. Thus, there are similarities in the names of these seven categories, but the content is different. *At the end, the interviewees were classified similarly as they were originally, but the IDEAL- level requirements for these categories were changed because they were supported in the literature discussed previously referring to the individual capabilities of PSM. Especially the literature of the purchasing duties, buyer profiles and characteristics*[89] *are analyzed and applied to form deeper requirements for these ideals.*

Both case organizations have been informed of this study along the entire research process, and they have verified the collected data and confirmed that the collected data was analyzed appropriately (i.e. not covering any specified data that can reveal the case organization or the interviewee). The results of this study are presented as a summary or in some other format that cannot disclose any specific answers or the interviewees. Furthermore, the results and the findings of this study are discussed. Organizational capabilities are internal ones as emphasized in the capabilities and knowledge of processes and employees within the organization as well as external capabilities. **The PSM capability matrix evaluates the individual (not presented in this study due to the anonymity) and organizational capabilities (presented partially in this study as the summaries of individual PSM capabilities). There would be a full scale of organizational level PSM capabilities, if all**

[89] Based on the literature discussed in Chapter 1.1.3. about the individual capabilities in PSM.

the PSM related employees were interviewed including the non-professional ones. Moreover, the internal and external processes should be evaluated. This full picture would take a long time and lots of effort and money and, therefore, was not possible to perform on such a wide scale. **However, these partial results and findings will give guidelines as to what the gaps of the PSM capabilities are. If the gaps are identified, the comparison can be done; the organization can compare the gap in general (partial organizational capabilities to others that are not evaluated at this time) and if improvements are needed throughout the organization, corrective actions can be taken.**

5.2. The Finnish food industry and the characteristics of the case organizations

The food sector has a very significant role in Europe as being the largest industry sector employing more than 4 million people. In Finland, the food industry is the biggest producer of consumer goods, the fourth largest industry sector with 2 000 locations and 37 000 employees[90], while the entire chain employs 300 000 people, which is 13 per cent of the workforce (ETL, 2007). The food industry offers products and services for daily basic consumption and therefore it is easily recognizable with its main products provided to the customers. The main branches are the bakery, meat, dairy and beverage industries, and the consumption of basic groceries has been rather stable in the past ten years (ETL, 2007). Therefore, the food industry is a very significant part of Finnish business economy, although it has faced several structural changes, deregulation and increasing global challenges in the past 15 years. The Finnish food industry was protected and isolated until the 1990s economic changes in Russia and the Finnish membership in the EU in 1995 (Brännback & Wiklund, 2001). As was argued already in the methodological discussions of this study, the Finnish food sector was selected as the research topic because it has changed from a traditional agricultural sector with basic production procedures towards a modern high-technology

[90] As a general trend, the number of employees in the food industry has slowly decreased since the year 2000 from 39 431 employees to 35 901 employees in the year 2006 (ETL, 2007).

industry with very fast development of biotechnology such as functional food[91] as well as GM[92] products.

Traditionally, Finland has been fairly self-sufficient concerning the food sector and, thus, the level of self-sufficiency has remained around 45 per cent for the last 10 years, even if at the same time the role of import has increased while exports have remained stable[93] (ETL, 2007). Furthermore, the statistics and trends indicate an increase in genetically modified (GM) products due to the heavy expansion of their production. Despite this increase in import as well as the growing interest in the production of GM products, the Finnish food industry is characteristized by domestic raw materials (85%), and it should be pointed out that in Finland people also prefer domestic rather than overseas products indicated by the high market share (83%) of domestic production (see e.g. ETL, 2007). Food and food related products are a very sensitive and emotional topic to many and, thus, they strongly influence the values and ethics, such as the usage of functional food and genetic modification and how people would approach and appreciate these issues. The public view is against GM products and there have been strong outbursts towards them all over Europe, but in Finland as well. Moreover, there has been speculation why there is no specific legislation that would compel the food industry to put a mark on the products from GM feed sources (e.g. ETL 2007), and this has been noticed even in the Finnish Parliament in the discussion about the bill to change the current laws (see Eduskunta, 2007).

The Finnish food sector is characterized by the limited number of large players as well as numerous smaller (and/or local) ones (Brännback & Wiklund, 2001). There are several competitive large organizations in the market (rf. domestic markets in Finland), but some smaller and more specialized organizations are also available (e.g. small bakeries and breweries), even if they are operating in narrower branches with very specialized items and serving selected customers rather than managing the entire selection of potential products and services. Such large organizations could use their remarkable buying power over the suppliers

[91] See the study of Brännback & Wiklund (2001) about functional food.
[92] Genetically modified (GM) products are produced by genetic manipulation.
[93] The import of the food industry was 2.7 billion Euros in 2006 while the export at the same time was 1.2 billion Euros as the main areas of export are Sweden, Russia, Estonia, Germany and the United States with products such as cheese, sugar related products (e.g. xylitol), alcoholic beverages, butter, confectionery and pork (ETL, 2007).

and this has led to a trend towards more collaborative relationships with qualified key suppliers. While the development and management of these different supplier relationships is seemingly important, the potential of such arrangements as well as their technology competencies can readily be enhanced (Brännback & Wiklund, 2001). On the other hand, the partners should have a mutual and strategic outlook for future operations and visions. Indeed, supplier relationships are subject to the same doubts and uncertainties as all business relationships and cannot let alone to wait for their development or successful results. Another industrial characteristic is the question of own label products and, thus, the acquisition of these items is focused on minimizing the sourcing and quality risks by gaining the benefits of (longer-term) collaborative supplier relationships, but at competitive acquisition prices. In Finland, most of the retail chains, such as the S-Group, Kesko, Tradeka and Lidl are providing their own private labels (see e.g. Inex, 2007; Kesko, 2007; Lidl, 2007; Tradeka, 2007). The supplier relationships are related to the private labels as goods and services provided only by this specific organization or organization network, and usually these private label brands are less expensive than their substitute products. However, this is not only focused on the food industry sector; rather, it is a common path overall related to the development of PSM, supplier relationships and their management.

There are two case organizations that are used as case study examples in this study. But, what are their roles in the food chain? The value chain of the food industry consists of the following parties (ETL, 2007): the origin of this chain are the providers (agriculture and suppliers) of the raw materials, packing and services provided to the food industry in the manufacturing process of the final or semi-final products that are delivered through the different kinds of retail logistic organizations (rf. Case Organization 1) and wholesale suppliers to the groceries and other channels (rf. Case Organization 2) that provide the customers with these products. Case organization 1 is labelled thus, because it comes first in this value chain, followed by Case Organization 2 at the next phase of the chain. These codenames were chosen because of anonymity. On the other hand, there is no need for organization specific names, details or numbers because such data is irrelevant in this study context and framework and does not provide any benefits or more value to this study. Furthermore, this was also supported by the case organizations themselves. It should be emphasized that Case Organization 2 is a major customer of Case Organization 1, but the

relationship is not investigated or emphasized in the research process or the study results and, thus, it has not influenced this study on any level. Therefore, this connection between these two organizations is considered already in the beginning of this study, and further, both organizations are examined separately with their study results.

What about the actual case organizations and their characteristics? Case Organization 1 is one of the leading organizations that is specialized in the logistics and purchasing of food chains to serve the limited fields of food industry which is more focused on specific branches in business-to-business markets rather than direct relations to the customer side of the business. Case Organization 1 is very determined to focus on customer service, the high quality of logistic and purchasing services as well as profitability achieved through cost effectiveness, and therefore, this case organization is able to provide the chains of their owners and main clients with its services. These are also the core functions of the organization with the creation and maintenance of supplier relationships and networks to achieve the purchasing goals. Thus, this case organization provides a very large product selection for its customers (rf. more than 10 000 items) and moreover, it has a very remarkable supplier base including several hundreds of selected suppliers. Furthermore, the organization operates domestically with several functions in many locations in different parts of Finland and its structure is organized as three parts of which one is focused on pure purchasing and customer services while the other two are related to the logistics, administration and financial issues. It should also be mentioned that this case organization is fully owned by a large logistic and purchasing retail organization that is further fully owned by a large central organization.

Case Organization 2 is one the leading organizations in this specific branch of the food industry discussed in this study, but it also operates in many other fields of the industry related to the private and public sectors. The corporate values of Case Organization 2 are dedicated to customer service, quality and teams. Thus, this case organization is specialized in providing customer-oriented service solutions and high quality food products with the idea of full service under one roof, and these arguments are also stated in the organization’s vision. Case Organization 2 not only operates in a wide range of sites (rf. several hundreds of them) domestically, but it also operates in Russia and some of the Scandinavian and Baltic countries. On the other hand, Case Organization 2 is one of the three divisions of a

conglomerate that is operating in the food industry sector in Finland and in the markets of Scandinavia, Baltic, Russia and the United Kingdom. Furthermore, this case organization consists of three business areas (cf. Case Organization 1), one of which is under investigation in this study relating to business-to-business (B-2-B) markets. Therefore, the organization has a wide range of customers also in B-2-B markets as well as in the customer markets and further, there are several customer segments and different types and sizes of customers. Even if the markets and customer base would be mainly domestic or related to the nearest countries, when it comes to the issue of PSM, the situation would be rather different if both organizations operated globally.

5.3. The distinctive buyer roles

The personnel of the purchasing function have different roles depending on their job description, tasks and organization structures. The organization's employees that are related to perform the purchasing tasks are classified into two broad groups: the first one is purchasing professionals who are in this study called *professional buyers* and the second one is *non-professional buyers*. The former refers to the employees that perform purchasing related tasks as their primary job, while the latter is focused on the non-professional buyers that are not primary purchasing professionals, but they may have secondary and supportive tasks to facilitate or participate in the responsibilities of the purchasing function, process, decisions and other purchasing issues. Therefore, among the other functions would be employees that may participate in purchasing related issues in many ways along the purchasing process, such as ordering and defining specifications, the development process such as IT development, quality or service issues or performance evaluation such as measuring total costs.

Thus, the different roles of buyers need to be clarified defining the appropriate evaluation levels for the goals pursued. Figure 14 presents the classification of buyers into the different types as professional and non-professional buyers with their sub-classes.

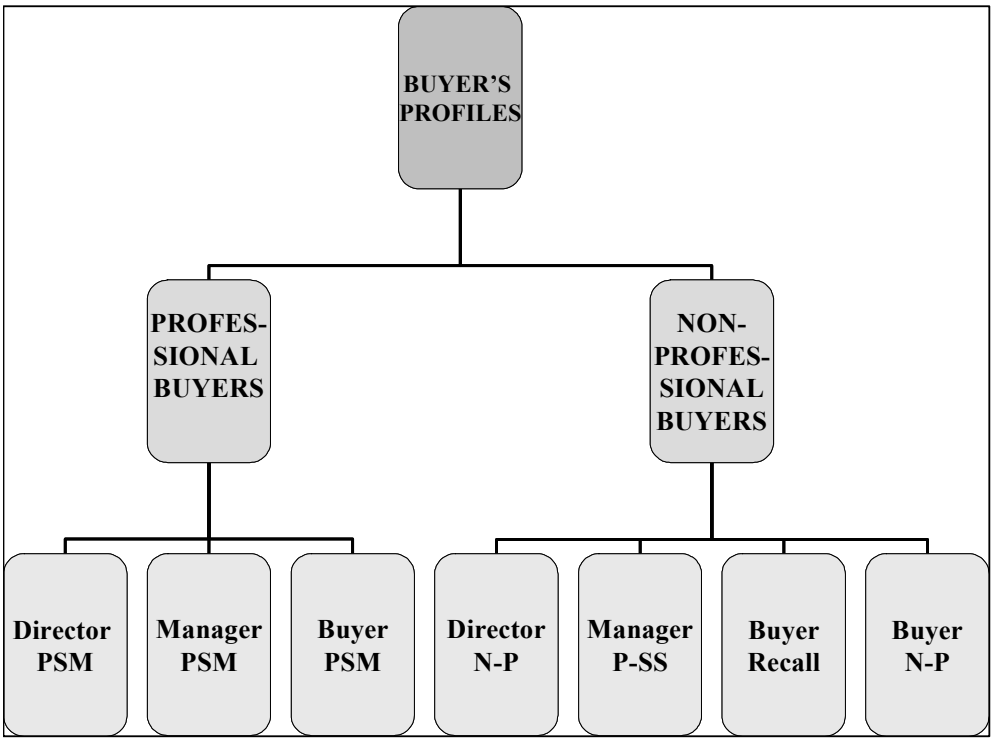

Figure 14. Classification of buyers into the different profiles

As illustrated in Figure 14, professional buyers are classified into three PSM related classes as *Directors, Managers and Buyers*. These are broad classes and the names of these classes merely describe the type and, thus, the actual professional titles could be something else; in other words, this type of classification is necessary to represent several other titles in the case organizations, and it is based on the job title of the interviewee as well as their performed tasks. Furthermore, the non-professional buyers are classified into four classes with their codenames as *Director N-P (N-P refers to term "Non-Professional"), Manager P-SS (P-SS is related to the term "Product and Supplier Selection"), Buyer Recall*[94] *and Buyer N-P*. Generally the non-professional buyers' working tasks are mainly something else than purchasing or purchasing function related, but they perform purchasing tasks besides their own tasks at least on some level. **Once again, it should be emphasized that these codes are**

[94] This study uses the term *recall* while, for instance, Monczka et al. (2005, p. 41) refer to the term *reorder* and these terms are used interchangeably.

not directly related to the job titles; rather, they are defined according to the capabilities such a code role would have as well as the tasks such a role is supposed to perform.

5.3.1. IDEAL levels for the different types of buyers

The concept *ideal* is defined in this study as referring to the optimal and required level to be aimed at in the field of PSM. Thus, the *IDEAL level* is related to the *highest score* capabilities achieved by the higher performance of PSM rather than the general meaning of the *best in the class*. In other words, in this study the ideal denotes the appropriate or required level, but not necessary the first of their class. Furthermore, the i-prefix in a particular category (e.g. iEXPERT) refers to the IDEAL stage of EXPERT-level capabilities, while presenting the case results the r-prefix is used to describe the REALIZED results of such capabilities (e.g. rEXPERT). This distinction is made because otherwise there could be misunderstandings, if there are two types of EXPERT levels. Therefore, the IDEAL one, aimed at is named iEXPERT, and the REALIZED one as illustrating the current situation in the evaluation time is labelled rEXPERT. The REALIZED-level results are presented as average grades of the individual results. Firstly, the average grades of the IDEAL levels are calculated and, then, the average grades of the REALIZED levels. Based on this, the comparison between these two average grades provides the gap in the PSM capabilities. These average grades and PSM capability gaps are formed for each buyer profile as presented in the following chapters.

5.3.2. Defining IDEAL levels for the different types of professional buyers

The determination of the IDEAL level for each class is based on the criteria and arguments presented in the PSM capability matrix. Therefore, these topics are only referred to in this part of the study. The summary of the IDEAL levels for the professional buyers is presented in Table 3.

Table 3. The IDEAL levels of PSM capabilities for professional buyers

IDEAL level of PSM capabilities **PROFESSIONAL BUYERS**	**Director PSM** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**	**Manager PSM** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**	**Buyer PSM** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**
STRATEGIC CAPABILITIES (elements 1-4)	**4=iEXPERT (1-4)**	**3=iSENIOR (1-2)** **4=iEXPERT (3-4)**	**1=iROOKIE (1-2)** **2=iJUNIOR (3-4)**
OPERATIVE CAPABILITIES (elements 5-7)	**4=iEXPERT (5-7)**	**4=iEXPERT (5-7)**	**4=iEXPERT (5-6)** **3=iSENIOR (7)**
ECONOMIC CAPABILITIES (elements 8-9)	**4=iEXPERT (8-9)**	**3=iSENIOR (8)** **4=iEXPERT (9)**	**2=iJUNIOR (8)** **3=iSENIOR (9)**

Table 3 illustrates the different types of buyers with their IDEAL levels in the different capability classes as strategic, economic and operative capabilities. The IDEAL level of **Director (PSM)** is related to these capabilities. All the elements (1–4) in *strategic capabilities of Director (PSM)* are identified at the iEXPERT level. This highest requirement is needed because Director (PSM) will perform the task and duties stated in the purchasing strategy and implement the features in their operative actions. On the other hand, while the purchasing strategy is based on the corporate strategy as discussed previously, Director should also have capabilities to modify and integrate strategic issues related to the general strategy process, its formulation and tools, customer and value added thinking, supplier relationship management as well as supply market knowledge. The *operative capabilities of Director (PSM)* should be at the iEXPERT level as well, including all the elements of operative capabilities (elements 5–7), because these elements are processes and purchasing policy issues and it could be assumed that they should be managed at the process level. However, Directors are responsible for the actions of the purchasing function and, thus, they should be focused on the management of entire processes and their decision-making rather than minor details or partial knowledge related to these processes. The elements in the

economic capabilities of Director (PSM) concern PSM related issues (elements 8 and 9). The economic capabilities will relate to the knowledge of PSM impact on organizational effectiveness and profitability. Furthermore, it is required in the management of total costs (incl. life cycle costs) and the knowledge of how the PSM impact and cost management are derived from the purchasing strategy viewpoints and, thus, how they are embedded in the purchasing policy and procedures. Generally, financial planning and reporting are focused on the corporate level as well as the purchasing function with strategic cost management issues. Therefore, at this point all these types of capabilities should be at the iEXPERT level as well.

The main task of **Manager (PSM)** is to perform the supplier and/or product selection based on the purchasing strategy statements. The *strategic capabilities of Manager (PSM)* should be at the iEXPERT level in the elements of the purchasing strategy and strategic purchasing issues including SRM and supply market management, whereas they should be focused on the iSENIOR-level requirements in general strategic management and the value networks including CRM issues. The former is required because it is highly related to strategic performing of PSM, whereas the latter is focused on the general level of strategic and customer management and, therefore, it should be emphasized on the knowledge of these issues without participation in the strategic decision-making or development processes; thus, there is no requirement for the higher IDEAL level. Furthermore, the *operative capabilities of Manager (PSM)* are argued to be similar with the Director profile (rf. iEXPERT level in all the elements 5–7), for the reasoning is the same as previously. The *economic capabilities of Manager (PSM)* concern cost management and financial reporting (element 8) which should be at the iSENIOR level because these professionals perform tasks related to PSM profitability directly and indirectly, but there is no requirement for full implementation of the strategic processes or the decision-making on the top management level. In other words, elements 1–2 are related to element 8, because all these are general strategic management issues, whereas elements 3–4 and 9 are focused on pure PSM issues (rf. this role is purely focused on strategic PSM) and therefore the IDEAL level is higher. However, the highest level is required concerning the PSM topics as discussed in element 9 because this role requires a high level of such capabilities as presented in the previous Director profile.

Buyer (PSM) mainly performs ordering process activities. While Buyer (PSM) is focused on the ordering process and purchasing process activities, there is a rather low requirement for *strategic capabilities* and, thus, the appropriate level is estimated at the JUNIOR level; this refers especially to the fields related to one's own work, tasks and activities (rf. elements 3–4 as to SRM and supply markets) and at the ROOKIE level concerning the first two elements about strategic management and value networks or customer management viewpoints. Furthermore, the *operative capabilities of Buyer (PSM)* refer to the EXPERT level since such a role requires high capabilities in the purchasing process, especially in the ordering and delivering processes (rf. elements 5–6) and knowledge of the purchasing policy, while other activities require SENIOR-level capabilities, such as the supplier selection process (rf. element 7). This lower capability requirement is justified because this buyer only performs tasks related to the purchasing process – more precisely to control the ordering and delivery process – and thus, the other part of the purchasing process, such as supplier selection and evaluation, are performed by others. At this point, Buyer (PSM) should identify and recognize the purchasing policy and its implementation on the organization's operative levels. The *economic capabilities of Buyer (PSM)* should be at the SENIOR level concerning the purchasing activities (mainly the economic role of PSM and performance evaluation as element 9) while the other capabilities are needed to be at the JUNIOR level, such as cost management (i.e. element 8). Professional Buyer should have knowledge of the total costs of purchasing, their formulation and impacts and how to measure them.

5.3.3. Defining IDEAL levels for the different types of non-professional buyers

PSM issues are mainly included in the purchasing function processes and decision-making, but usually they are also performed in other functions and levels within the organization. The employees may perform purchasing related tasks besides their main duties and tasks and, thus, these "buyers" are called non-professional buyers. They are not primary buyers and, therefore, their IDEAL levels should be lower than those of the professionals. Table 4 presents the different types of non-professional buyers with their IDEAL levels in the different capability classes as to the strategic, operative and economic capabilities of PSM.

Table 4. IDEAL levels for the different profiles of non-professional buyers

IDEAL level of PSM capabilities **NON-PROFESSIONAL BUYERS**	**Director N-P** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**	**Manager (P-SS)** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**	**Buyer Recall** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**	**Buyer (N-P)** **1=iROOKIE** **2=iJUNIOR** **3=iSENIOR** **4=iEXPERT**
STRATEGIC CAPABILITIES (elements 1-4)	**4=iEXPERT (1-2)** **3=iSENIOR (3-4)**	**3=iSENIOR (1-4)**	**1=iROOKIE (1-3)** **2=iJUNIOR (4)**	**3=iSENIOR (1-2)** **4=iEXPERT (3-4)**
OPERATIVE CAPABILITIES (elements 5-7)	**3=iSENIOR (5)** **2=iJUNIOR (6-7)**	**2=iJUNIOR (5-6)** **3=iSENIOR (7)**	**2=iJUNIOR (5-7)**	**4=iEXPERT (5-7)**
ECONOMIC CAPABILITIES (elements 8-9)	**3=iSENIOR (8-9)**	**3=iSENIOR (8-9)**	**1=iROOKIE (8)** **2=iJUNIOR (9)**	**3=iSENIOR (8-9)**

As shown in Table 4, **Director (N-P)** mainly performs tasks of the top management and development related to, for example, the duties of the CEO of the organization and directors of other functions (e.g. Development Director, Marketing and Customer Relationships Director). According to Table 4, the *strategic capabilities of Director (N-P)* are identified at the iEXPERT level concerning general strategic management and customer viewpoints (rf. elements 1–2). This highest requirement is needed because Director (N-P) will perform tasks and duties in their own function based on the corporate strategy and, further, there should be a high level of knowledge as to how to implement the strategy in operation. On the other hand, this role requires a high level of capabilities to adapt and integrate strategic issues related to the general strategy process, its formulation and tools, customer and value networks into one's own working context. Indeed, Director has usually a high position in the top management or in development activities that integrate, develop and modify entire processes and politics within the organization. As a summary, all Directors should have the highest level of general strategic capabilities no matter if they are professionals or not. However, in the PSM field the capabilities should be at the SENIOR level, including a good knowledge of the

purchasing strategy (needed in the integration and development efforts) and, particularly, management of supplier relationships that are usually strongly related to the other functions (elements 3–4). For instance, the marketing function should identify the customer needs that will impact the supplier side as to how the supplier may fulfill these customer needs (cf. the role of financial function as cost control and measurement). The *operative capabilities of Director (N-P)* should be at the iSENIOR level in the purchasing policy issues (elements 5) due to the high status of Director in the top management and development; they should have knowledge of each strategy of specific function and how it is derived from the corporate strategy as well as how it is embedded in the different organization levels within the function. As the purchasing function is one part of the organization, Director should have a good knowledge of the organization's purchasing policy along the other policies (iSENIOR level), even if these operative issues are only managed at the process level, not as specific knowledge of the purchasing process and supplier selection and, thus, only the JUNIOR level is required (rf. element 6–7). The elements of the *economic capabilities of Director (N-P)* refer to the iSENIOR level of strategic cost management and continuous performance measurement (elements 8–9) implemented on the basis of strategic management as described in the strategic profile of Director (i.e. presented with element 1). On the other hand, the supplier relationships and purchasing strategy should be managed together with customer management and, thus, there should be good knowledge of the other side, namely the supply markets. Therefore, the iSENIOR level is also required.

Manager (P-SS) participates in the product and supplier selection as a professional of this specific purchased subject by providing support to the product issues (e.g. support to the product or service specifications) or supplier selection (e.g. support to the determination of supplier selection criteria), but the main tasks of this role are related to some other function such as product development, marketing, logistics or production. On the other hand, while these decisions are derived from the corporate and purchasing strategy, this Manager should also have knowledge of these topics (elements 1–4). Thus, it is justified that *Manager (P-SS)* should know most parts of SRM, CRM and the supply markets with their own role in the value chain (iSENIOR-level *strategic capabilities* on all the element levels). The *operative capabilities of Manager (P-SS),* concerning the purchasing policy and process issues, are only needed at the JUNIOR level recognizing some parts of the purchasing process and the basic

idea of the purchasing policy (elements 5–6). Indeed, there is a strong linkage between above issues and the supplier selection process and, thus, iSENIOR level is also required (rf. element 7). The required level of *economic capabilities* is defined at the iSENIOR level because the decisions participated and/or made by Managers have a very significant role in profitability and, thus, there should be knowledge of the total costs of purchasing as well as the ratios used in the decision-making and evaluation (elements 8–9).

Buyer (Recall) mainly performs orders on the basis of contracts and supply agreements and partially may make a small number of orders (i.e. when no current contract available). Thus, it is justified, that they should only follow contracts without knowledge of any strategic viewpoints related to PSM and, thus, the required level of strategic management, value networks, CRM and purchasing strategies (elements 1–3) is identified at the iROOKIE level. Therefore, the requirements for *the strategic capabilities of Buyer (Recall)* are rather insignificant. However, it should be noticed that their main role may require such capabilities in their own working context depending on functional strategies. While they may perform few contracts on their own, this profile requires recognition of different suppliers and supply markets (rf. element 4) to find potential sources for the purchased items[95] (iJUNIOR level). All the *operative capabilities of Buyer (Recall)* are only needed at the JUNIOR level with recognition of some parts of the purchasing process and the basic idea of the purchasing policy and the supplier selection process with a few related tools (elements 5–7). The argument for this level is similar to other Buyer (Recall) capabilities (rf. following the contract as the guideline and "purchasing manual"[96]).The required level of *economic capabilities* is defined at the iJUNIOR level because contracts provide the basic guidelines for the purchased items and, thus, Buyer (Recall) is only following these guidelines and procedures stated in the agreement (element 9). However, this iJUNIOR level is required due to the minor role of separate contracts being performed by the Buyer (Recall). Similarly, there is even lower need for capabilities with cost management tools or their measurement as defined at the iROOKIE level (element 8).

---

[95] Such items are usually rather inexpensive routine items or simple and inexpensive specific ones that are supplied very rarely (expensive and more complex items are usually purchased by the purchasing professionals).

[96] This is referred to as the Buyer (Recall) using the contract as a purchasing manual, while purchasing manual generally refers to the written purchasing policy.

Purchasing related tasks are a significant part of **Buyer's (N-P)** daily work and duties without being their main role. The following ideal levels of this profile are based on the assumption that the tasks and activities are not guided by instructions, guidelines, manuals or policies of the purchasing function. The *strategic capabilities of Buyer (N-P)* are defined at the iSENIOR level of strategic management and customer management because they may participate in long-term decision-making and investments based on the corporate strategy (elements 1–2). For instance, they may perform or take part in decisions about some significant supplies for their own function that are not covered by the purchasing function (such as the case of decentralization). Thus, the iEXPERT level is justified and Buyer (N-P) should understand the entire process of purchasing strategy formulation and its impacts with the management of SRM and manage the entire field of supply markets (elements 3–4). All *operative capabilities of Buyer (N-P)* are defined at the iEXPERT level because this profile requires extensive capabilities with the purchasing policy and purchasing process mainly to be focused on the ordering and delivering processes and the management of the entire supplier selection process (rf. elements 5–7). However, this Buyer (N-P) profile is different from all the others. As noted, this profile is very close to the professional buyer (the profile Buyer PSM or even higher as Manager PSM), but their main task and duties are not performed in the purchasing function, but in some other function. Therefore, if purchasing will set the guidelines, policies and procedures to these tasks, the highest level requirements are needed no longer and, thus, the appropriate ideal level is defined at the iSENIOR level. Furthermore, it should be pointed out that the level of participation also impacts the requirements of IDEAL levels as is discussed in the chapters ahead. The required level of all *economic capabilities* is defined at the iSENIOR level because the decisions participated and/or made by them may have a very significant role in profitability and, thus, there should be knowledge of the total costs of purchasing as well as the ratios used in their decision-making and evaluation (elements 8–9).

5.3.4. Level of participation influences IDEAL level determinations

Purchasing professionals as well as non-professional buyers participate in different processes on the various levels of organization. Some roles may require only limited participation in these processes without any specifically stated responsibilities for such actions, but merely to

be in charge of purchasing activities would require higher responsibility taking as well as a higher knowledge level. Based on this, there are also four different dimensions on what level the person would participate in the processes (Figure 15) discussed earlier as the matrix presentation from ROOKIE to EXPERT levels.

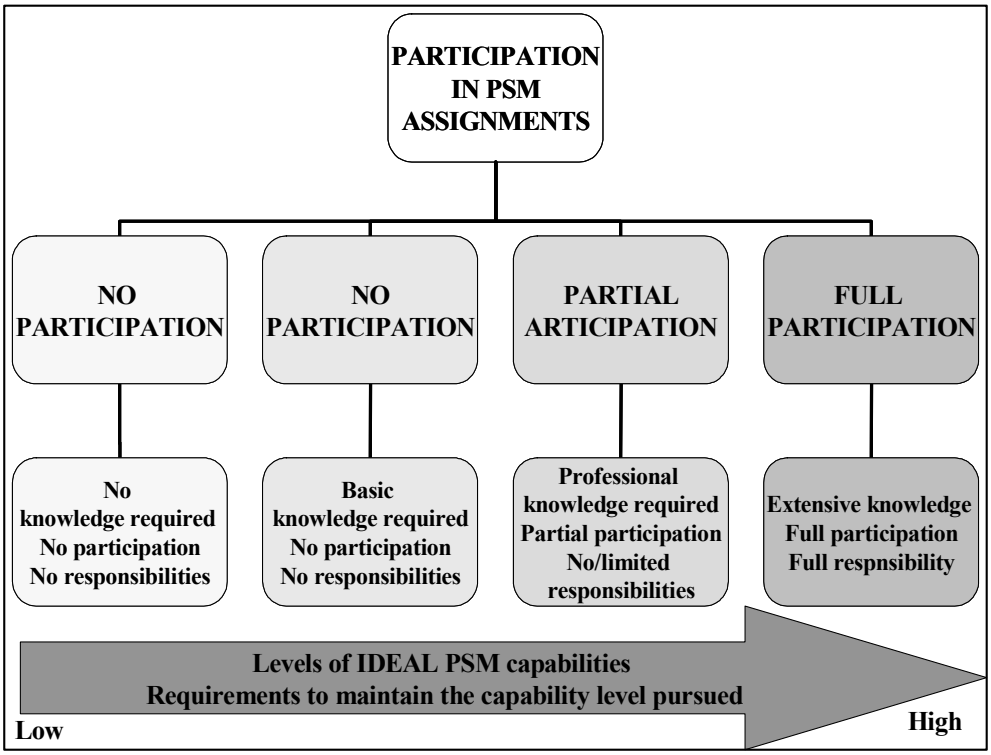

Figure 15. The participation levels with PSM assignments

As illustrated in Figure 15, the first levels of participation and responsibilities refer to the ROOKIE and JUNIOR levels as already presented in the capability evaluation context. At this stage, there is no participation or responsibilities. At the SENIOR level there is participation (not required full process participation), but only limited responsibilities or no responsibilities at all. The most demanding participation level is with the EXPERT, including full participation in the processes and the decision-making as well as full responsibility as being in charge of activities. It should be emphasized that the level of participation influences the ideal level of capabilities. In other words, if there is requirement for higher level responsibilities, it

also requires a higher level of capabilities and vice versa. Furthermore, a higher level of participation requires management of knowledge related to one's own tasks. *On the other hand, the lower level of participation and capabilities also reduce the requirement to continuously maintain and develop such knowledge and capabilities.*

5.3.5. The classification of buyers in the case organizations

The buyers – professionals and non-professionals – were classified based on the distinctive roles as discussed previously (see Figure 14). Figure 16 presents the results of this classification.

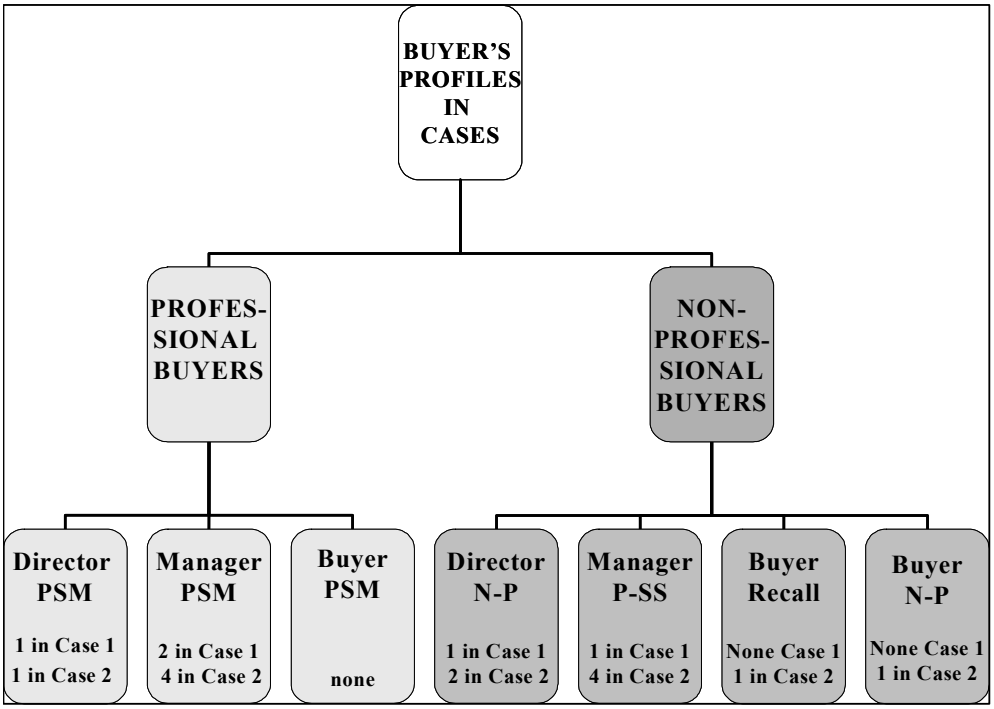

Figure 16. Classification of buyers to the specific profiles, results from the cases

As can be seen in Figure 16, the analysis identified two Directors, one in each case organization, six Managers of which one was in Case Organization 1 and four were in Case

Organization 2 classified as professional buyers. It should be pointed out that no professional Buyers were identified in these case organizations. Indeed, this was the only class that was not discovered among the interviewees. However, when it comes to the non-professional side, the analysis revealed three Directors of which one in Case Organization 1 and the other two in Case Organization 2, five Managers of which one in Case Organization 1 and four in Case Organization 2, and finally, there were no Recall Buyers and Buyers in Case Organization 1 while in Case Organization 2 there was one interviewee in each class. In summary, there were 18 interviewees of which 5 were from Case Organization 1 and 13 from Case Organization 2. This determination of IDEAL levels for the different types of buyers as defining the roles with their requirements was the last stage before the true testing of the PSM capability matrix. The results of the case organizations can then be evaluated and, thus, the gap between current capability levels and the IDEAL ones can be presented.

5.4. The summary of PSM capability gaps in buyer profiles

The PSM capability matrix is implemented using two case organizations. This empirical part illustrates the results of this research process in the form of case study findings. The individual PSM capability results or related gaps are not to reveal the identity of interviewees or data that could be harmful in any way to the interviewees. The case study results are presented as summaries of the case organizations' PSM capabilities that are constructed by comparing the REALIZED^{average}[97] levels of PSM capabilities (i.e. result of the current PSM capability level) to the required IDEAL^{average} levels with the buyer profiles. The summary of the professional and non-professional buyers from both case organizations are illustrated in Figure 17.

[97] *Average* refers to the former statement of a summary of the individual level capabilities. Thus, at this result part of the study, these realized and ideal levels are presented as the average grades of these individual results.

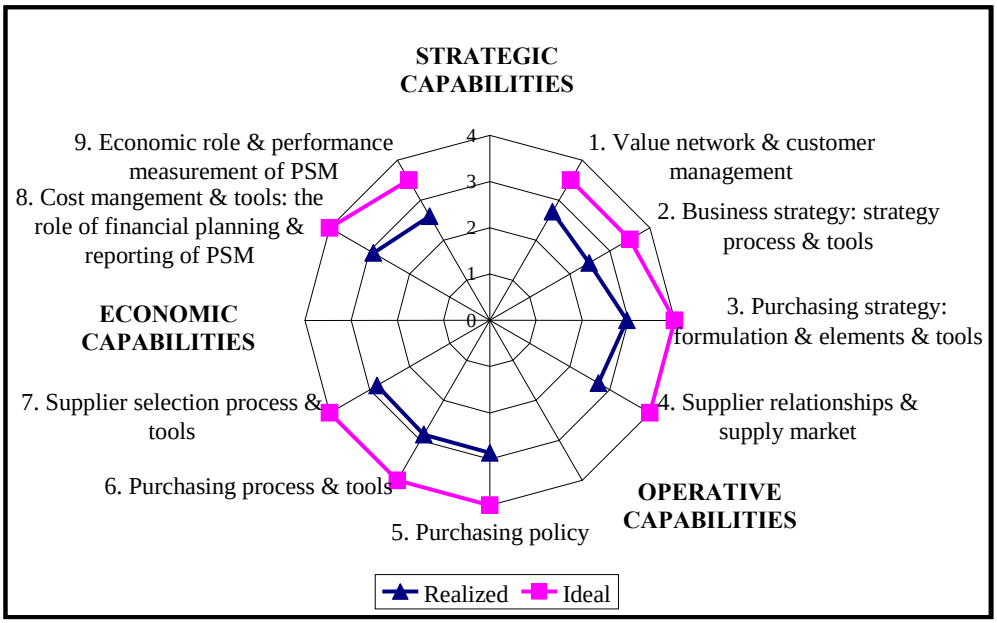

Figure 17. Summary of PSM capability levels of professional buyers

As can be seen in Figure 17, the three dimensions of PSM capabilities are classified into strategic, economic and operative capabilities with the same nine sub-categories. The IDEAL levels are the summary of the individual results from different professional buyer profiles. Thus, both the IDEAL and REALIZED levels (i.e. current level) are presented as average grades. In general, the results indicated that the PSM capabilities were realized very closely to the SENIOR-level capabilities (i.e. level 3). Even though the gap to the IDEAL level was measured around one capability level, it could be concluded that the PSM capabilities in the case organizations were on rather high levels. The topics of SRM, supply market and supplier selection process were identified as the hardest tasks, and the capability gap was the largest in these elements (the gap was 1.3 in element 4 and 1.2 in element 9). However, the results were so similar in each element that the differences were truly minimal. For the organizations' future action plans, there is still one level to be achieved, namely, the EXPERT level.

It should also be emphasized that there were several individual differences and, thus, there can be some wide gaps to be filled in the individual level development activities in the future.

Therefore, it could be recommended to identify these gaps in individual development discussions and to understand the deeper issues beyond these gaps. Based on these discussions, an individual development map could be created for each employee with aims and timetables to be pursued.

The results of the non-professional buyers are presented in Figure 18 using a similar procedure as discussed in the case of professional buyers.

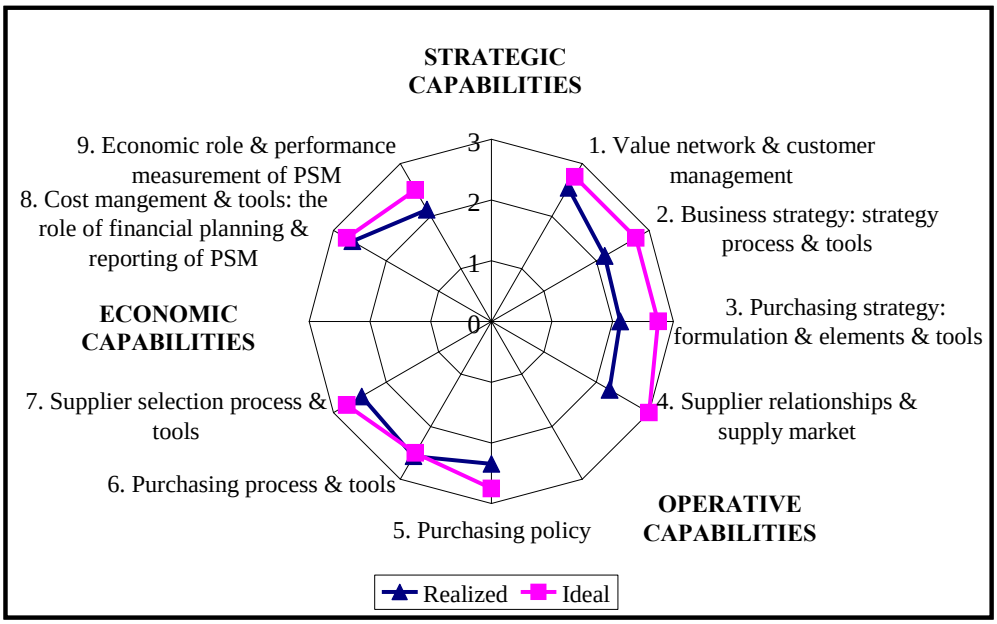

Figure 18. Summary of PSM capability levels of non-professional buyers

As illustrated in Figure 18, the general level results indicated that the PSM capabilities were realized between JUNIOR- and SENIOR-level capabilities (i.e. levels 2–3). The gap to the IDEAL level was minimal and, thus, it could be summarized that the PSM capabilities of non-professional buyers in the case organizations were extremely high. The capability gap was highest in the strategic topics of SRM, the supply market (element 4, cf. professional buyer as well), general strategic management (element 2) and strategic purchasing (element 3), but even in these elements the highest gap was less than one capability level (the highest scores

were 0.8 in the area of SRM and supply markets). However, it could be assumed that in some profiles the strategic capabilities are extremely relevant (e.g. Director N-P), whereas with Buyer (Recall) profiles such strategic views are more or less irrelevant. Indeed, these results were so similar in each element that the differences were truly minimal (only 0.5 unit points which is half of the evaluation level). One interesting phenomenon was also the "negative" result of the capabilities of the purchasing process and tools. It raises a question whether the capabilities in this element are "too high" compared to the needed ones, but at the same time, it is relevant to ask whether there is need for higher ideal levels in general. This point is a very interesting field for further research. For the organization's future action plans, there is only some fine-tuning to be done, but of course, continuous development is still needed to maintain these levels in the future as well.

These results were organizational level summaries from all the professional and non-professional buyer profiles. However, the identification of sub-profiles as presented in Figure 16 are needed and, thus, they are also presented as summary levels following similar procedures as previous presentations. The integrated results are illustrated in Table 5 providing the results of the PSM capability gaps with the different professional buyer profiles.

Table 5. PSM capability gaps of different professional buyer profiles

PSM CAPABILITY GAP PROFESSIONAL BUYERS	ELEMENTS	DIRECTOR (PSM) Case 1	Case 2	MANAGER (PSM) Case 1	Case 2	BUYER (PSM) not found	
STRATEGIC CAPABILITIES	1 2 3 4	0.7 1 0.5 1	0.3 2 1 1	0.8 0.5 1.5 1.3	0.3 0.6 0.9 1.5		
OPERATIVE CAPABILITIES	5 6 7	1 1 0.5	1 1 1	1.3 1 1.5	1.1 1.4 1.3		
ECONOMIC CAPABILITIES	8 9 6	1 1.5	0.7 1	1.2 0.5	1.2 0.4		

Table 5 above concludes the PSM capability gaps for the *professional buyers* in Director and Manager profiles. As mentioned earlier, the analysis identified no interviewees with the Buyer profile. Strategic capabilities were classified similarly as previously and the first element is value network and CRM capabilities. The **Director** profiles pointed out that both organizations have rather good capability levels on that area while the gap is less than 1 (0.7 in Case Organization 1 and 0.3 in Case Organization 2). It should also be emphasized that the interviewees truly expressed the significance of the customers in several ways (in different questions and from many angles). Therefore, this customer side is a really well acknowledged topic in both organizations. Furthermore, one's own role in the value network was recognized, even if the actual term *value network* was not altogether familiar to the interviewees. However, individual differences related to the value network were wide and, thus, there could be some wide gaps to be filled in further development activities. The economic and operative capabilities were on rather same levels in both organizations (the gap was around 1). The widest gap was reported in Case Organization 1 in element 9 of PSM economic role, profitability, costs and performance measurement (1.5 unit points which is almost two

evaluation levels), while there was only a minor gap in the supplier selection process (element 7). The gap in Case Organization 2 was even more fixed around 1 unit point, but the general cost management and financial reporting was better managed (gap was 0.7 unit points). As a generalization of the entire results from the Director profile of professional buyers, development is needed in all the PSM capabilities. Further development activities should be aimed to achieve this required one level up from the SENIOR to the EXPERT level. *In this context it should be emphasized that these REALIZED levels of all Directors (PSM) were rather high, because the results were identified already on the SENIOR level.* It could also be argued that if there is some development required, in the future there is need for a deeper analysis of these evaluation levels and their requirements and, thus, it is possible or even required that the IDEAL levels should be identified higher than they are in this study.

The *strategic capabilities of* the **Manager** profile are rather similar in both case organizations, and the gap is between 0.3–1.5 unit points depending on the element. The widest gap was identified in the purchasing strategy of SRM and supply markets (element 4), whereas the gap was very small in areas of value network, CRM and strategic management. Managers should have the highest level of PSM related strategic capabilities and SENIOR-level strategic and customer management capabilities (elements 1–2). The REALIZED levels were close to the SENIOR level in each of these strategic elements, but the highest level was not achieved in either organization. If a professional PSM Manager performs tasks and duties so closely related to these topics, higher levels should truly be required. These results are not poor, but some further development plans should be considered to fill these gaps. The *operative capabilities* were evaluated more or less one level lower than the required IDEAL level (iEXPERT), but the REALIZED level (SENIOR) can be considered good as well. All the operative levels were evaluated the highest because Managers perform these tasks and duties every day and the decisions (especially the cost impact) could have severe implications in the corporate profits, since Managers are also responsible for high profile supplies with large costs. Generalizing the entire results from the Manager profile of professional buyers, there is need for slight improvement in all the PSM capabilities. However, individual differences should be noticed in the development process and, thus, there could be wider gaps to be filled in the future. The *economic capabilities* of Managers were almost identical in these organizations and, thus, there was a gap of more than one capability level in the field of cost

management (element 8), while level 3 was required. On the other hand, an even more significant area was PSM role, costs and measurement in which the gap was only approximately 0.5 unit points, and most of all, it should be noticed the requirement of the highest ideal level.

Finally, a similar evaluation was conducted for the non-professional buyers, and the integrated results of the PSM capability gaps of non-professional buyer profiles are presented in Table 6.

Table 6. PSM capability gaps of different non-professional buyer profiles

PSM CAPABILITY GAP **NON-PROFESSIONAL BUYERS**	**ELEMENTS**	**DIRECTOR (N-P)**		**MANAGER (P-SS)**		**BUYER RECALL**		**BUYER (N-P)**	
		Case 1	**Case 2**	**Case 1**	**Case 2**	**Case 1**	**Case 2**	**Case 1**	**Case 2**
STRATEGIC CAPABILITIES	1 2 3 4	0.3 1.5 0 0	0.8 1.8 0.8 0.8	1 1 1.5 1	0.9 1.1 0.9 1.1	None	-0.3 -1 0 0	None	1 0.5 2 2
OPERATIVE CAPABILITIES	5 6 7	-0.5 -0.5 0.5	-0.5 -0.5 0.3	1 -1 -0.5	0.6 -0.3 -0.4		0 -0.5 0		1 1.5 2.5
ECONOMIC CAPABILITIES	8 9	-0.7 0	0.5 1.3	0.7 1.5	0.7 0.9		0.3 -0.5		0.7 0.5

Table 6 presents a summary of the integrated results from both case organizations as providing the PSM capability gap in the distinctive *buyer profiles of non-professionals*. The *strategic level capabilities* in the **Director** profile pointed out that there are several differences between the study results of these case organizations. The Director profile of Case Organization 1 showed that their IDEAL level is achieved in the fields of purchasing strategy (element 3) and SRM and supply market (element 4), and that there is only a narrow gap in

the issues of CRM and value networks. The gap of the Director profile in Case Organization 2, however, was less than 1 unit points (0.8 unit points in elements 1, 3–4). In other words, their REALIZED level was one level lower than the IDEAL one. However, both organizations were underperforming in general strategic management (element 2) while the gap was almost 2 unit points (1.5 in Case Organization 1 and 1.8 in Case Organization 2), in other words the REALIZED level was two levels lower than the IDEAL one. It can be argued that this element requires significant further development, because while the average evaluation level of all the strategic capabilities was close to the JUNIOR level, the ideal ones were one or two levels higher. Furthermore, it is justified that Directors should have very high strategic capabilities (in general at least, but also SENIOR-level capabilities in PSM) due to their tasks and duties. The *operative capabilities* were on rather same levels in both organizations revealing negative results; in other words, the REALIZED levels were higher than the IDEAL ones (there was no gap in elements 5–6, and the gap of element 7 was only around 0.5 unit points). Thus, Directors possess greater operative level capabilities than required and there is no need for further development at this point; even if their challenges somewhat increased, the level would still achieve the highest scores. It should be noticed, that the average REALIZED level was between JUNIOR and SENIOR levels, and in the context of operative capabilities the highest level is not needed by any means (i.e. there is no need for higher level requirement in the future either). The *economic capabilities* of Director between these organizations were distinctive to the other two classes of capabilities. Case Organization 1 achieved the stated levels in both elements (even exceeded the required level in element 8 with -0.7 unit points), whereas Case Organization 2 showed lower capability levels in both elements (0.5 unit points in element 5 and 1.3 unit points in element 9). This was a very interesting finding because the results were rather similar in all other elements of strategic and operative capabilities. Furthermore, no reason could be found from the empirical data.

The *strategic capabilities of* the **Manager** profile are rather similar in both case organizations and the gap was very close to one capability level. The widest gap is presented in Case Organization 1 with capabilities in the purchasing strategy (gap 1.5 unit points). In other words, the REALIZED level was one lower than the required one (iSENIOR). The *operative capabilities* were evaluated to be rather identical in both organizations referring to the capabilities in the supplier selection process, and both exceeded the IDEAL level (iSENIOR)

as well as the ideal requirements about the purchasing process (iJUNIOR). The capability gap with the purchasing policy was evaluated between 0.6 (Case Organization 2) and 1 (Case Organization 1) levels. It could be argued that the ideal levels should be higher, but Managers only (sometimes even occasionally) participate in the supplier and product selection while mainly performing other tasks and duties rather than purchasing. However, in some cases these ideal levels (iJUNIOR) with the purchasing policy and processes could be higher if participation was continuous and more a "full time job". As a summary, there is no need for further development in the area of operative capabilities; even though Case Organization 1 could briefly update their purchasing policy guidelines for non-professional Managers. Furthermore, individual differences should be noticed in future development activities. The *economic capabilities* of Managers were almost identical in these organizations (cf. Manager PSM) and, thus, there was less than one capability level gap in the field of cost management (element 8); however, in the evaluation of element 9 with PSM profitability, costs and performance, Case Organization 1 showed a capability gap of 1.5. It should be noticed that the requirement is for iSENIOR-level capabilities.

Buyer (Recall) and (N-P) are illustrated only with Case Organization 2 results while there were no interviewees identified in Case Organization 1. As a brief summary[98] of **Buyer (Recall)**, the *strategic capabilities* achieved the required ideal levels in the field of SRM and purchasing strategy (elements 3–4) and exceeded in the areas of CRM and strategic management (elements 1–2). The ideal levels of *operative capabilities* were also achieved and even exceeded with the capabilities in the purchasing process. Thus, there is no need for further development in the profile. Moreover, the *economic capabilities* were performed as they were required as to cost management (iROOKIE) and PSM role, costs and performance (iJUNIOR). However, the levels of this Buyer profile are rather low, but at the same time there is no requirement for higher grades because such a Buyer only performs ordering based on agreed contracts and, thus, there is only a very narrow field of PSM capabilities to be required (i.e. the main tasks and duties are related to other functions than purchasing).

However, higher ideal levels are required of **Buyers (N-P)** due to their tasks and duties, and it can be suggested that this role is close to a professional buyer, but in other functions than

[98] Brief only because there is no potential for re-integration or comparison of the results.

purchasing. The gap of *strategic capabilities* varies between 0.5 (strategic management) and 2 (in purchasing strategy and SRM) while the ideal requirements are iSENIOR (elements 1–2) and iEXPERT (elements 3–4). However, these highest level requirements will go one level down, if the purchasing function provides support and guidelines to the implementation of these tasks. The *operative capabilities* were the most underperforming part (gaps varied between 1–2.5), but indeed, the ideal level was the highest possible (iEXPERT) and similarly, this is one level lower due to the purchasing guidelines provided by the purchasing function. At this point, the gap would be filled or, at least, it would be minimal. In this profile, there are great differences between the three types of capabilities, but usually it could be concluded that there is high need for further development with the notion of appropriate support and guidance provided by the purchasing professionals of the purchasing function. Indeed, it should be emphasized that, as discussed in previous chapters of average organizational level capabilities, that altogether the PSM capability levels of all the non-professional buyers were on a rather high level. The PSM capability gap of *economic capabilities* is less than one level (ideal iSENIOR), and this was also achieved in the organizational evaluations.

In summary, the results of the REALIZED capabilities (i.e. the current PSM capability level) have been compared to the IDEAL levels to identify the gap in PSM capabilities. Consequently, the gap has been recognized and it can be used to set new goals to be pursued and, indeed, to fill the gap and achieve higher levels of PSM capabilities.

6. SYNTHESIS OF THE THEORETICAL DISCUSSION AND EMPIRICAL FINDINGS OF THE STUDY

This study has presented the PSM capability matrix that has been implemented in two case organizations. This is a hybrid research that combines both the constructive and case study approaches. Both methods are equally significant in this study, even though the constructive research process is presented firstly referring to the formulation and development of the PSM capability matrix, whereas the case study is used in the empirical data collection and analysis. Data collection and analysis as well as the empirical results have been conducted through the case study process, while the constructive approach focuses on the development of the PSM capability matrix based on the original one. *The PSM capability matrix is a framework to facilitate the identification and evaluation of PSM capabilities and, thus, it defines the potential PSM capability gaps.* When the gaps are recognized, they can be filled to enhance the PSM capabilities. The evaluation process can be repeated to explore, if the gaps have truly been filled, and to find potential new gaps. This is a continuous development cycle to achieve higher performance in PSM, and eventually to increase the profits and the performance of the organization. First and foremost this refers to the dynamic capabilities. Thus, the resource-based view (RBV) and dynamic capabilities view (DCV) are the theories applied in the matrix creation, and they have also been linked to the objectives of the study as the basic theoretical foundation.

This part of the study is following the study objectives and, thus, the synthesis between the theoretical framework and empirical results is discussed. The first topic is related to the contribution to the objectives of this study. While the first research question is related to the identification of the key PSM capabilities, the individual and organizational PSM capabilities are summarized. On the other hand, the second research question is related to the evaluation of the capabilities and, thus, the actual PSM capability matrix is highlighted. Furthermore, the discussions of the actual PSM capability matrix, linkages to the theories and the synthesis between the theories and the empirical findings are presented. Accordingly, the PSM capability gaps are summarized. Finally, the implications from the empirical data to the matrix are illustrated.

6.1. Contribution to the objectives of the study

This study argues that PSM capabilities can be transformed by identifying the PSM competencies, skills and resources. As demonstrated previously in Figure 6, organizations have their specific resources, skills and habits to form their daily basic routines (both on individual and organizational levels) that form the PSM capabilities. This study showed (rf. individual buyer profiles) that individual capabilities are needed in the formulation and development of organizational capabilities (rf. PSM capability maps) through organization specific shared knowledge, routines, processes and competencies. These issues are strongly connected to both the resource-based and the dynamic capabilities view as presented in Chapter 3 along the objectives of this study. Figure 19 presents the objectives of this study and a summary of the theoretical framework.

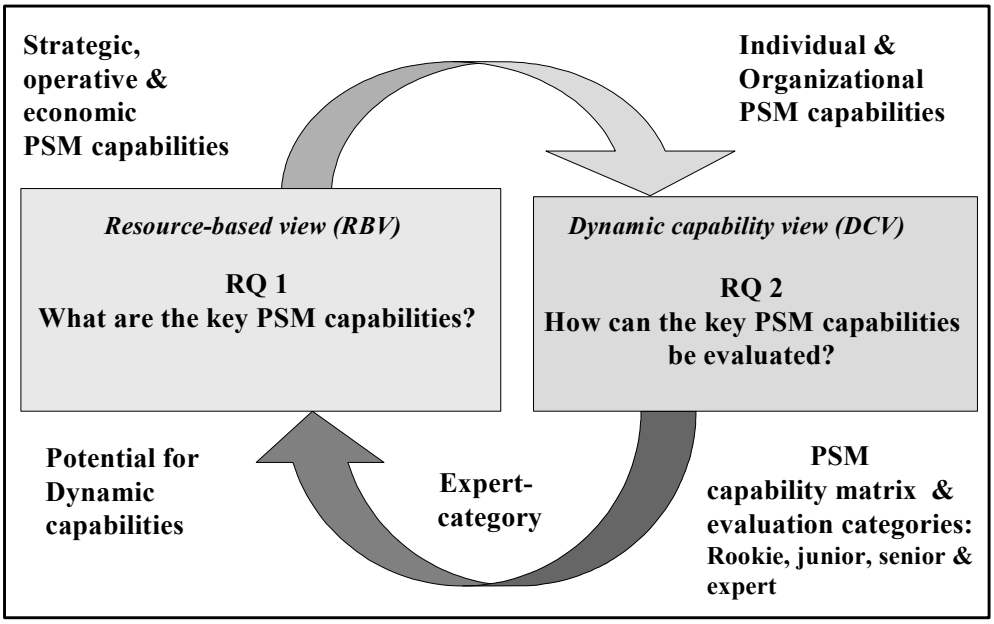

Figure 19. The position of the study objectives in the theoretical context

As can be seen in Figure 19, the research questions of this study were derived from the theories of RBV and DCV to be supported by the literature from different angels such as

PSM, strategic management, knowledge management and marketing. The first research question refers to the RBV because it is viewed in this study as the seminal theory, whereas the second research question is more focused on the DCV to discuss the dynamic approach as an application of RBV. Firstly, the concept of capability was linked to the PSM context through the resource-based and dynamic capabilities views. Secondly, the literature on PSM and strategic management were used to identify the key capabilities. Thus, the first main research question of this study was **what the key purchasing and supply management capabilities are.** Along this study this question was answered with the topics presented in the matrix as the *three levels of PSM capabilities, namely the strategic, operative and economic ones, that created the capability base for the PSM matrix.* These factors were identified based on the literature findings and as well as supportive suggestions from the case studies.

After this first classification of the three primary views of capabilities, the second task was to identify the sub-capabilities to these three broader classes forming the groundings to the evaluation of PSM performance. The three dimensions can be classified into *nine different types of sub-capabilities***.** Strategic capabilities were related to four topics that are i) value networks and customer relationships (rf. customer relationship management, CRM), ii) the business strategy formulation, strategic process and strategically used tools, iii) purchasing strategy and its formulation with the related tools and iv) supplier relationships (rf. supplier relationship management, SRM) and supply markets. Operative capabilities were focused on the topics of purchasing policy, purchasing process, including the ordering and delivery process, and implementation of the supplier selection process with the tools for supplier selection and evaluation. Economic capabilities referred to the cost management and financial planning and reporting in the context of PSM as well as the role of PSM in profitability accumulation including the purchasing performance and measurement with the tools and methods of purchasing costs evaluation. These capabilities were derived from the literature on PSM, strategic management, marketing and economics as presented previously.

Having classified the PSM capabilities, the second task was to define the evaluation criteria for the capabilities. Consequently, the second research question related to the evaluation of the capabilities examining **how the key purchasing and supply management capabilities**

can be evaluated. Thus, there was also a need to identify the key evaluation criteria[99] to evaluate those capabilities. According to these criteria the capabilities of the buying organization's employees were classified into **four stages: i) rookie, ii) junior, iii) senior and iv) expert**. The results of the empirical cases were classified into three classes of professional buyers and four ones of non-professional buyers. The ideal levels were defined, and the buyer classes were compared to them to identify the gap between the current and wanted levels – the PSM capability gap. The PSM capabilities can be summarized into a PSM capability map that can be used to evaluate the requirements and needs of PSM. Thus, organizations may find a gap between their current state and their potential goals and needs with PSM capabilities. The pre-questionnaire data was only used to identify the interviewee task, role and duties to define the buyer profile. The summary of the individual profiles illustrated the organization's PSM capabilities. The PSM capability matrix was implemented in the context of two case organizations from the Finnish food industry. The summary of these results were presented and discussed in Chapter 5.

Filling the PSM capability gap provides potential for mutual learning and, thus, it is strongly connected to the dynamic capability view. If the PSM capability gap is identified, the organization will learn and renew individual capabilities within the organization to create organization specific routines and processes that may further create dynamic capabilities. In this study, the dynamic capabilities of PSM are related to the innovation capabilities, mutual learning and renewal of resources with regard to issues such as storage resource management, customer relationship management, value networks, process development, human resource management, innovation capabilities and R&D and partially operative capabilities (i.e. limited to the purchasing and supplier selection processes with the development, mutual learning and innovations within the process and organization). In a dynamic environment the goal is a series of temporary competitive advantages (Eisenhardt & Martin, 2000) and creating such a series allows the organization to create new value while maintaining the value created previously (Sirmon & Hitt & Ireland, 2007). Indeed, it can be argued that such dynamic capabilities are temporary and the concept *dynamic* refers to the continuous renewal of capabilities to maintain the competitiveness also in the future.

[99] These key evaluation criteria are based on the literature and the definitions of the research team presented in Chapter 4.

It can be concluded that the empirical results support the usage of the PSM capability matrix and how it can be applied in the field. Moreover, the results of the case organizations provide insights into this matrix and identify the PSM capability gaps, in other words, show which capabilities should be developed in the future. Based on the dynamic capabilities approach, the organization can renew their resources and competencies and increase their organizational capabilities by mutual learning. This is based on the assumption that while the dynamic capability view is emphasized, there is adaptation and application of current knowledge to find new capabilities and this usually involves development, co-working, mutual learning and innovations. This, on the other hand, could lead to the expert category of the organizational PSM capabilities (rf. PSM capability gaps and the map of the individual results). If the renewal and development process of PSM capabilities is implemented properly, the organization definitely gets closer to the highly innovative and dynamic PSM capabilities.

6.2. Identification and evaluation of the key PSM capabilities – discussion about the PSM capability matrix

Approached from individual and organizational angles, PSM capabilities are related to the individual and operational side of development such as purchasing process activities and negotiations. The literature review pointed out that there are different buyer profiles to identify the elements of PSM competence (i.e. individual capability), and such competencies are strategic, customer and process management, decision-making, leadership, team work, communication and negotiation skills as well as business skills (see e.g. Axelsson et al., 2005b; Faes et al., 2001; Gammelgaard & Larson, 2001; Giunipero & Pearcy, 2000). Furthermore, it has been argued that PSM knowledge and skills are related to the know-how about supplier markets, the analytical skills of the purchasing personnel and the use of performance measurements (e.g. Axelsson et al., 2005a; Carr & Smeltzer, 1997). These individual skills are closely related to the classification and measurement of personnel characteristics discussed in Chapter 5.3. of this study. *Thus, these individual skills and competencies formed the individual capabilities in PSM that were presented in the buyer profiles*.

On the basis of the literature findings, the organizational PSM capabilities are related to the buyer-supplier relationships, personnel capabilities (Narasimhan et al., 2001), technological capabilities, the knowledge of customer needs (Teece, 2000), human resources, production equipment and organization structures and processes (Axelsson et al., 2005b). Organizational capabilities are an internal resource, emphasized on the capabilities and knowledge of processes and employees within the organization as well as external capabilities. Thus, PSM capabilities may be summarized into the factors of (Narasimhan et al., 2001) i) empowerment (involvement related to operational and job issues), ii) employee competence (e.g. training and performance evaluation), iii) interaction effectiveness (tactical levels referring to the purchasing interaction with other functions such as production or quality control and new product development related to engineering and R&D interactions) and iv) buyer-seller (or supplier) relationship management with regard to risk sharing, joint actions and cost sharing with the supplier. Thus, there are separate and mutual processes within the organization and with other parties such as suppliers, partners and customers. Through the supplier relationships the organization can acquire complementary resources and capabilities as well as new knowledge (e.g. technologies, HRM, infrastructural ones) that such an organization needs and requires. Thus, the organization must have the ability to manage internal and external assets to capture value. Indeed, success is based on the effective management of these relationships and it requires matching product, market and relationship conditions, and adapting the appropriate management approach to different relations. *These organizational PSM capabilities were related to the organizational PSM capability map (Chapter 5.4.) which illustrated the gaps in PSM capabilities.*

Individual learning refers to the capacity to learn within organizations as employees, while organizational learning refers to the organizations themselves (e.g. Teece et al., 1997; Zollo & Winter, 2002). Organizational capabilities and intangible assets form the intellectual capital. Furthermore, there is possibility to mutual learning through the supplier relationships and networks as well as customer collaboration as to investigating the sources to respond to customer perceptions and, thus, to develop supply markets and the value network proactively. The organization consists of human, physical and financial resources and a knowledge base which is divided into static resources that already exist and are routinely exploited and dynamic capabilities that are new or not fully identified or exploited and, thus, the business

success depends on the organization's ability to exploit these static resources and to explore dynamic capabilities (Kyläheiko et al., 2002). Human resources are becoming the greatest concern to the organizations. In this study the different organizational resources were discussed and summarized in the PSM context (rf. Figure 7). The organizational challenge of PSM is managing a huge number of different individuals with their skills and capabilities targeted towards business success. This challenge can be met with hard work, time and investments, since there are no shortcuts to success. An increasing focus has been on the recruitment of competent staff that will also stay in the organization and be part of organizational competitiveness. People should be motivated to strive for the common goals and benefits leading towards innovative and supportive organization culture. This study facilitates the recruitment of purchasing professionals, because the organization is able to use the matrix to evaluate individual PSM capabilities. Thus, the results can be utilized in the recruitment process and to identify potential gaps before employment. *Indeed, this matrix can be used as a proactive tool to facilitate the recruitment of purchasing professionals and support the recruitment of non-professional buyers in other functions.*

As a summary, in this study the individual PSM capability was defined as individual knowledge, skills, ability, attitude and willingness to perform the required tasks, while the organizational PSM capability was a unique integration of human resources, technologies, equipment, organizational structure, routines and processes that are commonly acknowledged within the organization. Thus, the key PSM capabilities were defined as the organization's ability and willingness to deploy individual PSM resources by using organizational capabilities and processes to achieve their goals and fulfil the duties of PSM. The PSM capability matrix evaluated the individual (not presented in this study due to anonymity) and organizational capabilities, presented partially in this study as summaries of individual PSM capabilities. *Partially* only refers to the idea that there would be full-scale organizational level capabilities of PSM, if all the PSM related employees were interviewed including the non-professional ones. Furthermore, the internal and external processes should be evaluated, if the full organizational level capabilities are required to be explored. Therefore, this full picture would take enormous time, effort and money, and in this study it was not possible to perform on such a wide scale. However, these partial results and findings provided appropriate guidelines to identify the gaps in the PSM capabilities. Having identified the gaps, the

comparison was performed. The organization can compare the gap in general, and if there is need for improvement, corrective actions can be taken.

6.2.1. Summary of the strategic capabilities in PSM

The strategic capabilities of PSM were classified into four sub-categories or elements: i) value networks and customer relationships (rf. CRM, ii) strategic management, iii) purchasing strategy as well as iv) supplier relationships (rf. SRM) and supply markets. These topics were analyzed based on the literature (Chapter 4.3). Thus, they are synthesized on the basis of the empirical findings.

1. Value networks and customer relationships

The first strategic sub-capability in PSM was the value networks and customer relationships. The role of different players in the value network and the significant position of the customer in the network have been acknowledged. Therefore, customer relationship management is a very essential part of PSM as well, while the purchasing strategy is or most definitely should be focused on creating value for the customer. This point was supported in the literature discussed in Chapter 4.3.1. as well as in the empirical findings of this category (Tables 5 and 6). There is a linkage between organization level and functional decisions, and the integration of functional ones into a holistic corporate strategy can be accomplished by adopting a PSM approach while the effectiveness of the decision-making is ultimately evaluated based on measures of value creation (Narasimhan et al., 2001). Therefore, the purchasing function should communicate openly and align their purchasing strategy with the corporate strategy; furthermore, there should also be linkages to other functions' strategies. The business and purchasing strategy capabilities are (or should be) customer driven and, thus, this integration is required. Moreover, the capabilities of general business management are required to be at IDEAL levels related to the Director and Manager profiles, but these capabilities are also important on more operative levels, viewed as knowledge over the process and, thus, the capabilities should be emphasized towards this process management approach.

One remarkable point is that many of the interviewees pointed out the increasing significance of general business skills, competencies and capabilities. This was supported in actual interviews, but it was truly emphasized in the pre-questionnaires. The increasing role of customers, CRM and thus, the value networks were acknowledged. Even if the customers were already "kings" in both of these case organizations, it was assumed that the role is even higher in the future. Furthermore, this was impacted by the global markets and, thus, the battle for customers and continuous enhancement of competitiveness.

2. Business strategy, its formulation and strategic management

The second strategic sub-capability in PSM was the business strategy, its formulation and strategic management including the related tools. Indeed, strategic management should be performed from a customer driven standpoint. Thus, there is a strong connection between value adding and the organization's resource management to perform customer driven values. Organizations must renew their strategic thinking to achieve these strategic goals. On the other hand, there could be contradiction, while an organization may fight against changes without seeking growth, but at the same they may pursue higher profits, effectiveness and competitiveness. Resource management is a comprehensive process to organize, combine and modify the organization's resources to accelerate the creation and development of new ones and, thus, form capabilities to maintain and add value for the customers and the owners (Sirmon et al., 2007). Similarly, referring to Penrose (1959), resource management is crucial to value creation while organizations have to use and manipulate the resources rather than just to possess and own them. Applying the resource-based view (rf. Chapter 3.3.), this study suggests that strategy and resource management decisions should be managed hand in hand, and thus, the purchasing strategy is based on the overall business strategy and should be part of strategic decision-making. These topics were discussed in Chapter 4.3.2. referring to the significance of the business strategy and general strategy process in strategic decision-making. While PSM should have a significant role in corporate profitability and effectiveness, it can be argued that in some cases there is need for the re-shaping of the business strategy as well, if the results from the PSM capability matrix indicate that corporate level changes and development in under-performing dimensions are needed. On the basis of the empirical findings, if the case organization does not achieve the IDEAL- level standards especially

related to the cost management, they should consider what should be done in the future to ensure the higher financial performance and, thus, whether there is potential for higher performance in the PSM capabilities (see also study of Reinecke et al., 2007).

3. Purchasing strategy, its formulation process and tools

The third strategic sub-capability in PSM was the purchasing strategy, its formulation process and tools related to these issues. Because the strategic goals of PSM are derived from the daily basic guidelines (rf. purchasing procedures), the strategic purposes are more profoundly understood. In other words, the purchasing strategy is more tangible, while it can be seen in one's own tasks and output.

Outsourcing is related to the business and purchasing strategies as discussed in Chapter 4.3. and the strategic decision-making as well as to strategic and operative management (rf. Chapter 4.4.). Outsourcing is linked to the purchasing strategy as it should be part of the business strategy, but even more important is to identify the outsourcing decisions and implementation already in the purchasing strategy planning and conduction as discussed in Chapter 4.3.3. The organizations should separate the process of outsourcing decision-making from the purchasing function, whereas capital allocation and purchasing should be considered as part of the strategic view of the organization, especially in relation to outsourcing decision-making (Tayles & Drury, 2001). This study argues that this is partially true; while the actual outsourcing decision is the responsibility of the corporate top management (derived from the organization's strategic management and business strategy), the actual implementation process should be conducted on the purchasing function level. This is can be justified because such an implementation process is highly related to supplier relationship management and operative processes close to both the suppliers and the customers. On the basis of the theoretical discussion in Chapters 4.3. and 4.4. as well as the empirical findings (rf. strategic PSM capabilities), this study views that the implementation of outsourcing and the related decision-making should always be part of strategic purchasing, not the organization's strategic management as to the actual decision of should there be outsourcing or not.

The corporate strategy, strategic management and purchasing strategy should be aimed at obtaining an idea of dynamic capabilities in order to renew resources and achieve mutual learning (within the organization and between the parties) and development of IC and, thus, increase organizational capabilities. PSM capabilities can be evaluated through this matrix. It could be concluded that, there is no need for an isolated purchasing strategy (as other functions' strategies), but instead, it should be derived from the corporate strategy and, thus, it should be part of the process in general management. This could be the only way to assure the role of PSM as an overall strategic element. This also leads us to the heart of corporate strategy; the Author argues that the purchasing strategy should be included in the comprehensive corporate strategy of the organization. This is supported by the theoretical findings, but the organizations should also recognize the significance of the purchasing strategy in the context of the entire organization.

4. Supplier relationship and supply market

The forth strategic sub-capability in PSM was the supplier relationship with the supply market capabilities and tools related to these topics. It should be pointed out that the supplier relationships are strongly related to the value added for the customer through distinctive types of chains and networks. Indeed, Kale et al. (2002) suggested five stages to alliance development and examples of codified alliance management tools: alliance planning (*value chain analysis and needs analysis*), partner selection (*partner screening and cultural fit evaluation*), negotiation (*negotiations matrix, needs vs. wants checklists, contract template and alliance metrics*), alliance management (*trust-building worksheet and communication infrastructure*) and termination phases (*relationship evaluation form and termination checklist*). Therefore, the supplier's organizational structure and personnel should fit into the buyer's strategic and operative structures between the organizations, and there should be compatibility with the customer view and CRM. This requires a suitable management attitude from both partners. On the other hand, partners should have a mutual and strategic outlook for future operations and visions. Both of them should be focused on mutual strategic visions and customer needs and requirements. First of all, strategic compatibility between the parties should be considered from both partners' viewpoints (Ellram, 1990 & 1991; Speakman et al., 2000) and personnel must be committed to the relationship across the corporation, which may take a lot of time. Therefore, such

relationships require mutual efforts in the long run as well as inputs (such as mutual investments) and risk sharing. It is generally recognized that creating, developing and maintaining successful supplier relationships is a very demanding task. Therefore, such relationships need to be classified and, thus, this classification will assist in choosing the appropriate supplier and in managing the supplier relationships. The amount of literature on supplier relationships was overwhelming as described in Chapter 4.3.4. Supplier relationship management can be summarized in terms of Dubois[100] (2003) to include considerations about i) with whom to collaborate, ii) how to collaborate and iii) what the subject of collaboration should be. At least these questions should be answered when planning the accurate strategy for SRM.

The supplier relationships (especially SRM) relate in many ways to all the other primary and sub-capabilities of the matrix, such as *directly* to i) strategic capabilities, ii) economic capabilities as well as iii) operative capabilities. SRM has (or at least should be) a strong connection to the supply strategy that should form guidelines to suppliers how to deal with questions of how, when and on what level (rf. competitive bidding towards strategic alliances) to perform transactions. Furthermore, this strategic viewpoint also refers more or less *indirectly* to the value network and customer relationship management while the suppliers have a key role in the networks to achieve customer satisfaction and, therefore, suppliers have an impact on the other side's (the buyer organization's) goals and profitability. However, measuring this view is a difficult challenge, since value is a contextual and complex phenomenon as has been discussed in Chapter 4.3.1. of value networks and customer relationship management. Moreover, the economic factors would emphasize the role of (total) costs and quality issues, even if the latter also related to the operative capabilities and, thus, the measurement viewpoint. These are direct dimensions, whereas indirect ones are highly related to the business profits and effectiveness as presented in Chapter 4.5. Indirect costs would also refer to customer satisfaction and, thus, CRM and the value network approach. In other words, how purchasing would perform better offers for customers, such as lower costs, higher quality or value achieved through effective supplier relationships and mutual product and service development and innovations, and thus, achieve higher customer satisfaction. The direct operative side of this context is that obviously supplier relationships are included in the purchasing process (Chapter 4.4.2.) and supplier selection process (Chapter 4.4.3.).

[100] Dubois uses the term *cooperation* referring to these issues, but this way of thinking can also be used in collaboration, as used in this study

As Chesbrough and Teece (1996, p. 65) argued: *"[t]hose rushing to form alliances instead of nurturing and guarding their own capabilities may be risking their future."* Generally this means that organizations should be allied with their partners, only if they really are familiar with their core capabilities and know their people, processes, knowledge and technology and, secondly, if they are willing to share and transfer this knowledge to the partner. Strategic alliances and different types of supplier relationships were presented in Chapter 4.3.4. Based on the literature discussed in the chapter, the ideal supplier relationship can be summarized: i) it continuously creates its future forwards proactive strategic purchasing and ii) it does not stay behind defending present situation or yesteryear. Organizational learning and experiences are important elements in supplier relationship management and, thus, they indicate the potential of dynamic capabilities as well (rf. Chapter 3.2.1 about the elements and formulation of dynamic capabilities). The organization should have an SRM strategy that contains clear goals and responsibilities between parties, ownership clarifications, risk and benefits sharing, used assessment methods and selected criteria and finally the evaluation methods to assure continuous sustainable development.

The relevance of the appropriate partner and personnel are crucial, but equally significant issues are the organizational decisions and the choice of strategy, the challenges managers face almost daily. It is important that the purchasing professionals spend time and effort to follow what really happens in the environment and markets to be pro-active rather than re-active when changes happen. This refers to the supply market as was discussed in the PSM capability matrix as one strategic sub-capability in Chapter 4.3.4. also referring to the tools for supply market follow-up. The strategic level of PSM capabilities in the case organizations was illustrated in Table 5 as professional buyers and Table 6 as non-professional ones, while Figures 17 and 18 presented the summaries of these PSM capabilities. *Proactive* refers to the strategic viewpoints that such issues are recognized and prepared far ahead in the future before something even happens or may happen, while *reactive* relates to the issues that may happen today or tomorrow without any planning ahead or back-up actions[101].

[101] See e.g. Baily et al. (2005) presenting the characteristics of re-active and proactive buying.

6.2.2. Summary of the operative capabilities of PSM

The operative capabilities of PSM were classified into three elements: i) purchasing policy, ii) purchasing process and tool as well as iii) supplier selection process and tools. These topics were analyzed based on the literature (Chapter 4.4). Thus, they are synthesized on the basis of the empirical findings.

The operative capabilities of PSM are related to the strategic level capabilities in three ways. Firstly, the purchasing policy should be derived from the purchasing strategy that is based on the corporate strategy as noted earlier. Further, the linkage between these two – the strategy and the policy – should be pointed out, because if there are plans for the development of the strategy, the implications to the purchasing policy should also be considered already in the planning phase. The functional strategies together with the purchasing, manufacturing, marketing and sales competencies would influence the organization's performance (Narasimhan et al., 2001). The second dimension is the purchasing process that relates to the supplier selection process (rf. operative capability), but also strongly impacts the supplier relationships, alliances and their management with the knowledge of CRM and value networks. Furthermore, the role of outsourcing in this context cannot be ignored. Thirdly, the purchasing process is also strongly linked to the organization's other functions and, thus, process integration is required within the organization (functional level) as well as between the organizations (rf. external resource level as suppliers, partners or customers). The operative capabilities also refer to cost management issues, such as general cost management capabilities and reporting, but especially through purchasing costs and their accumulation and measurement. The significance of PSM in cost accumulation cannot be denied and different ratios provide support to this vital role in corporate profitability as presented previously in the study of Reinecke et al. (2007), and this was supported by the empirical findings of this study as well by showing the important role of cost management in the PSM performance. PSM capabilities in cost management should also be discussed in the context of purchasing processes as strongly relating to the cost of the actual purchasing process as well as the total costs (TCO) of purchased items and supplier selection referring to the cost-based selection

criteria[102]. Thus, it can be argued that the operative capabilities should be derived from the strategic capabilities to find the appropriate sub-capability levels and their linkages and, based on this identification, the integration can be performed from strategic visions into operative level performance. Furthermore, one important dimension is also the measurement tool itself; it would be recognized by name, can be used in some level, but there might be some difficulties to identify what the tool is supposed to measure and, thus, there should be knowledge of how the tool is formulated and why and how it is used and developed, if required. The operative level of PSM capabilities in the case organizations were illustrated in Table 5 as professional buyers and Table 6 as non-professional ones, while Figures 17 and 18 presented the summaries of these PSM capabilities. Indeed, the dynamic capabilities can be found from the operative capabilities as well, while the dynamic strategic process is performed towards the operative level capabilities.

6.2.3. Summary of the economic capabilities of PSM

The economic capabilities of PSM were classified into two elements: i) cost management and tools with the financial planning reporting and ii) the economic role of PSM with the performance measurement and tools. These topics were analyzed based on the literature (Chapter 4.5). Thus, they are synthesized on the basis of the empirical findings.

Strategic capabilities are also strongly connected to strategic cost management as has been discussed in this study about the **economic capabilities of PSM** such as cost management and related tools as well as the measurement of performance (incl. short and long-term levels). Efficiency has always been considered as the key criteria for performance measurement and it cannot be neglected even today. However, strategic purchasing envisages the comprehensive picture of strategies that could impact the profits and efficiency. Furthermore, there are several different indicators in performance measurement related to production, the product and innovations, such as production efficiency referring to the inputs required to produce a wanted output decreasing due to better production efficiency, or product quality that

[102] These are only examples of direct costs while there could also be indirect costs from selecting the wrong supplier with the quality, reliability or other problems influencing customer satisfaction. These indirect costs can occur in the long run and, thus, they are very difficult to evaluate beforehand.

customers perceive higher value from the products than the available substitutes, or speed of innovation to create new products and processes as concluded by Wu (2006). These topics were presented along this study and, thus, the economic level of PSM capabilities in the case organizations was illustrated in Table 5 as professional buyers and Table 6 as non-professional ones, while Figures 17 and 18 presented the summaries of these PSM capabilities.

6.2.4. Discussion of the key findings of all PSM capabilities

The analysis of these empirical results and findings were discussed, but a further analysis could be conducted as integrating the results into the organization specific goals, mission and visions. Thus, a few conclusions can be presented. Firstly, the perceptions of Case Organization 1 are related to the topics of strategic alliance development, increasing the competitiveness and profitability, rewarding significant customers and development of cost efficiency and total effectiveness. The study results support that this customer view is truly noticed in the field of PSM as well as the management of value adding activities and networks. Moreover, the general and PSM cost management (incl. financial reporting, measurement and profitability of PSM) is performed rather successfully, even if there is still some development required (economic level capabilities). However, further developments are needed mostly in the field of SRM (of which the element strategic alliances are falling) and supply market capabilities. This statement was supported in the evaluation results of the professional and non-professional levels as well.

Secondly, the aims and values of Case Organization 2 focused on commitment to customer service, quality and teams. The customer viewpoint was supported by the study results similarly as in the results from Case Organization 1. Furthermore, the role of teams was mentioned in the interviews, even if it was not directly investigated in this study. However, there were several interviewees from this organization presenting the non-professional side of PSM and, thus, it can be considered as an argument that supports the significance of the teams in this organization. This study concludes that both these organizations have achieved the objectives they are presenting in their corporate strategies and, thus, their goals and visions are also supported by this PSM capability matrix.

Both of the profiles of the professional and non-professional buyers can be summarized based on the above findings. In general, the results indicated that the PSM capabilities of professional buyers were very close to the SENIOR-level capabilities (i.e. level 3). Even though the gap to the IDEAL level was around one capability level, it can be concluded that the PSM capabilities in these case organizations were on rather high levels. The topics of SRM, the supply market and the supplier selection process were identified as the hardest tasks, while the capability gap was widest in these elements. However, the results were so similar in each element that the differences were truly minimal. For the organization's future action plans, there is still one level up to be achieved (the EXPERT level). Furthermore, it can argued that the PSM capabilities of non-professional buyers were extremely high, while the gap to the IDEAL level was only minimal (rf. Table 6). The capability gap was widest in the strategic topics of SRM, supply market, general strategic management and strategic purchasing, but even in these elements the widest gap was less than one capability level (rf. the SRM and supply markets). It should also be emphasized, that there were several individual differences and, thus, there could be wide gaps to be filled in the individual level development activities in the future. Therefore, individual development discussions can be recommended to identify the gaps and to understand the deeper issues beyond these gaps. *Based on these discussions an "individual development map" can be created for each employee with their aims and timetables to be pursued.*

6.2.5. Summary of the PSM capability matrix

How can an organization implement the PSM capability matrix? First of all, they should identify the potential areas and capabilities to be evaluated as selected in this study as strategic, operative and economic PSM capabilities; then, based on the PSM capability matrix form the different buyer profiles. Based on these profiles, the capability gaps can be identified and goals set to fill the gaps. Moreover, the matrix will facilitate the management of all these three capability classes. PSM capabilities should be identified and evaluated to recognize the gaps between current and ideal levels of capabilities. Thus, when the organization knows of their gaps, they can aim their future efforts to fill these gaps and, then, possibly achieve higher performance and

profits. Furthermore, the results illustrated how to implement the PSM capability matrix and what kinds of results there were to be utilized in identifying the gap between the current (REALIZED) and potential (IDEAL) PSM capabilities. Consequently, the organization can shift their actions towards the ones needed most and, therefore, enhance their managerial procedures, develop the under-performing dimensions as well as, if required, even change their purchasing strategies.

The PSM literature strongly emphasizes the significance of strategic purchasing, but instead even the recent studies have shown that time spent on issues of strategic purchasing is only the tip of the iceberg[103]. This is a very interesting point of view because the PSM literature has acknowledged the role of strategic purchasing as one of the leading topics in this field, but it does not support the study results of time spent on strategic issues. Furthermore, the justification for such strategic capabilities can be partially supported by the study of Priem and Butler (2001a) which summarizes the strategic management issues related to the RBV: strategy formulation (competitive strategy and strategy building), entrepreneurship (rf. alliance formation, resources and performance), strategy content (as HRM as a resource), social responsibility (rf. social and natural environmental issues) and strategic management processes (e.g. behavioral models and culture). Also, the viewpoints of Monczka et al. (2005) support this assumption as the proactive PSM strategies are related to global sourcing, supplier quality management, total cost management, long-term contracting and strategic alliances, outsourcing and R&D and innovation issues with suppliers or partners and the enabling capabilities that support the development of such strategies are human resources, organizational design, information technology (IT) and measurement. *These views of Monczka et al. (2005) and Priem and Butler (2001a) were also supported in this study along all the three primary PSM capability categories, but especially these topics were related to the first category of strategic PSM capabilities.* The question of IT-related issues should be discussed on the corporate level to be defined in the corporate strategy, such as what they are in a particular corporation and how they should be evaluated, managed and developed.

[103] See for instance Netman (2002) about a study on the Finnish industry that shows that the status of strategic purchasing (e.g. HRM, planning and development activities) is only 14%, while supplier management and negotiation (incl. inquiries, negotiations, contract and supplier management, communication between departments etc.) takes 34% and, indeed, ordering (e.g. ordering and tracking, reclamations, returns, payments, transport and logistics) takes 47% .

The leadership and HRM facilitate the accumulation of knowledge discussed in the formulation and path-dependency of dynamic capabilities (rf. Chapter 3.2.). Moreover, these facilitators also support the strategic and operative capabilities of PSM. Top management support has a vital role in organizational success. Therefore, the role of top management was discussed in the PSM context (Chapter 4.3.3.) and, thus, it was pointed out that strategic PSM and strategic decision-making require the support of the top management (e.g. Gadde & Håkansson, 1994). *These topics supported both the theoretical and empirical findings of strategic PSM capabilities and, further, the top management of the case organizations (rf. CEO) were recognized to have a significant role in PSM both in strategic management and decision-making, but also as the valuable source of business profits and performance in the entire value network.* Without a necessary support from the top management and other strategic corporate functions, PSM may not have access to appropriate resources in terms of qualified employees and time to fully engage these individuals into the strategic processes and strategic cost management activities. Nowadays organizations' PSM capabilities are more likely part of overall business development and management. Therefore, the top management should ensure that the necessary PSM skills, competencies and capabilities exist in the organization.

To conclude this topic, during the last 35 years the role of purchasing has changed from the operative and clerical function towards a more strategic one. Since the statement of Farmer (1972) arguing that there is a missing link between the purchasing and organization business strategy, there has been considerable discussion among the academics and practitioners as well. However, it has not been very widely studied what kinds of demands the strategic role creates for the purchasing and supply management function. For instance, Gadde and Håkansson (1994) present three strategic issues – make or buy, supply base structure, customer-supplier relationship – that should be considered moving from a money saving action towards a more resource-planning function. As Grant (2002) presents, the strategic planning process is composed of corporate visions, performance, goals and external analysis to form strategic plans, and based on these plans, organizational capability assessment is conducted: identifying the capability requirements of the strategy and assessing the capabilities available to reveal capability gaps. This process was also identified in this study

(especially Chapter 4.3.2.). *Indeed, strategic management of PSM, outsourcing, SRM and CRM were pointed out as significant elements of strategic PSM capabilities and, thus, it can be argued that PSM truly is a strategic function in general (rf. literature findings) and in the case organizations (rf. empirical results).*

As a summary, all the elements of the PSM capability matrix can be more or less linked to the process of dynamic capabilities formulation and development and, therefore, the purchasing policy should be identified on such a basis and implemented dynamically. The organization then operates on a daily basis pursuing these strategies dynamically in long term and achieves the results and benefits as stated in the dynamic corporate and purchasing strategies. This truly epitomizes today's actions towards tomorrow's success. Probably, the truth is beyond these scenarios including both benefits and risks, and the success depends on how to manage such a roller coaster towards the balanced goals and, further, how to stay in this dynamic road.

7. CONCLUSION

The capabilities and business success go hand in hand. Organizational knowledge and capabilities are being embedded in processes, routines and structures and the knowledge cannot move without the transfer of personnel. Thus, the principal challenges of PSM research are the organizational capabilities and their measurement. On the individual level, these topics have already been investigated in recent studies, but the organizational aspect has been overlooked. It should be noticed that evaluation itself is not the premier focus of any research, but the utilization of the data in strategic planning and operative actions. It would be more useful to know what, why and how to evaluate and this is particularly significant in the evaluation of capabilities. Unnecessary evaluation not only takes time and wastes energy in gathering and reporting the evaluated data, but the results are usually too overwhelming to enable actual assistance to the decision-making and different kinds of analyses. It is easy to make mistakes that can adverse the entire process and, thus, it is worth creating a framework that contributes to the PSM capabilities – both the individual and the organizational capabilities – that are investigated within an organization, even if several evaluation criteria are related to external resources and capabilities, such as supplier and customer relationships.

Despite acknowledging strategic purchasing, there is still lack of true strategic action and, thus, organizations may still use performance measurement tools from price driven perspectives. This sets a significant challenge to identifying the appropriate levels of PSM capabilities as well. This could be the primary reason, why such a complete and extensive frame for the evaluation of PSM capabilities on both individual and organizational levels does not exist. However, this kind of framework may be difficult to create due to organizational obstacles (e.g. required information and knowledge is impossible to measure and/or collect) and time (e.g. a longitudinal study takes more years than the business environment requires). This was also supported by this study, because a full-scale evaluation of the PSM capabilities would take an excessive amount of time, money and effort to interview the entire personnel related to the purchasing and supportive tasks. Therefore, only partial organizational level capabilities of PSM were investigated in this study. However, this level was appropriate, while the implications could be drawn on such grounds as well, and the PSM capability gaps were identified. For these reasons, recent studies have probably focused on the comparison,

measurement and development of specific PSM capabilities rather than framing the general determinants of PSM capabilities. However, a comprehensive picture of the PSM capabilities is required by the academics and the practioners. This picture was provided by the PSM capability matrix presented in this study.

This final part of the study summarizes the study including the entire development process of this study with the fulfilment of the study purpose and objectives. Furthermore, the theoretical and managerial implications of this study are discussed. Thus, the research methodology and limitations of the study are presented with the validity and reliability discussions. Finally, areas for future research are suggested.

7.1. Summary of the study

Today's hectic and turbulent world requires flexible relationships and networks with high levels of specific capabilities in a very narrow field. Thus, PSM capabilities have to develop along with others. Organizations may face an increasing number of development processes, but one significant issue is to identify the PSM capabilities that they should invest in today to achieve success in the long run. Organizations are connected to the value networks to create value to the customers. Supplier relationship management refers to the external relational capabilities with partners and customers. However, the organization has the internal capabilities that are embedded in their processes and procedures. This study used a PSM capability matrix as a framework to evaluate these capabilities and presented a comprehensive picture of PSM capabilities.

The purpose of this study was to define what the purchasing and supply management capabilities are and how they can be evaluated (rf. Figure 19 about study objectives in the theoretical context). Thus, *the first main research question of this study was* **what the key purchasing and supply management capabilities are.** Along the study this question was answered with the topics presented in the matrix as the *three levels of PSM capabilities, the strategic, operative and economic ones that were creating the capability base to the PSM matrix.* These factors were identified based on the literature findings as well as supportive

suggestions from the case study findings. After this first classification of the three primary views of capabilities was performed, the second task was to identify the sub-capabilities or elements in these three broader classes forming the foundation for the evaluation of PSM performance. The three dimensions can be classified into *nine different types of sub-capabilities***.** Strategic capabilities were related to four elements that are i) value networks and customer relationships (rf. customer relationship management, CRM), ii) the business strategy formulation, strategic process and strategically used tools, iii) purchasing strategy and its formulation with the related tools and iv) supplier relationships (rf. supplier relationship management, SRM) and supply markets.

Having classified the PSM capabilities, the second task was to define the evaluation criteria for the capabilities. Based on this, *the second research question was related to the evaluation of the capabilities examining* **how the key purchasing and supply management capabilities can be evaluated.** Thus, there was also a need to identify the key evaluation criteria[104] to evaluate those capabilities. According to these criteria the capabilities of the buying organization's employees were classified into **four stages: i) rookies, ii) juniors, iii) seniors and iv) experts**. The results of the empirical cases were classified into three classes of professional buyers and four ones of non-professional buyers. The ideal levels were defined and the realized results were compared to the ideal levels to identify the gap between current and wanted levels, namely, the PSM capability gap. The PSM capabilities can be summarized into a PSM capability map that can be used to evaluate the requirements and needs of PSM. Thus, organizations may find a gap between their current state and their potential goals and needs with regard to their PSM capabilities. The pre-questionnaire data was only used to identify the interviewee's task, role and duties to define their role, the buyer profile. The summary of the individual profiles illustrated the organization's PSM capabilities. This study was implemented in two case organizations from the Finnish food industry. The summary of these results were presented and discussed previously (Chapter 5). Figure 20 illustrates the development process of this entire study.

[104] These key evaluation criteria are based on the literature and the definitions of the research team presented in Chapter 4.

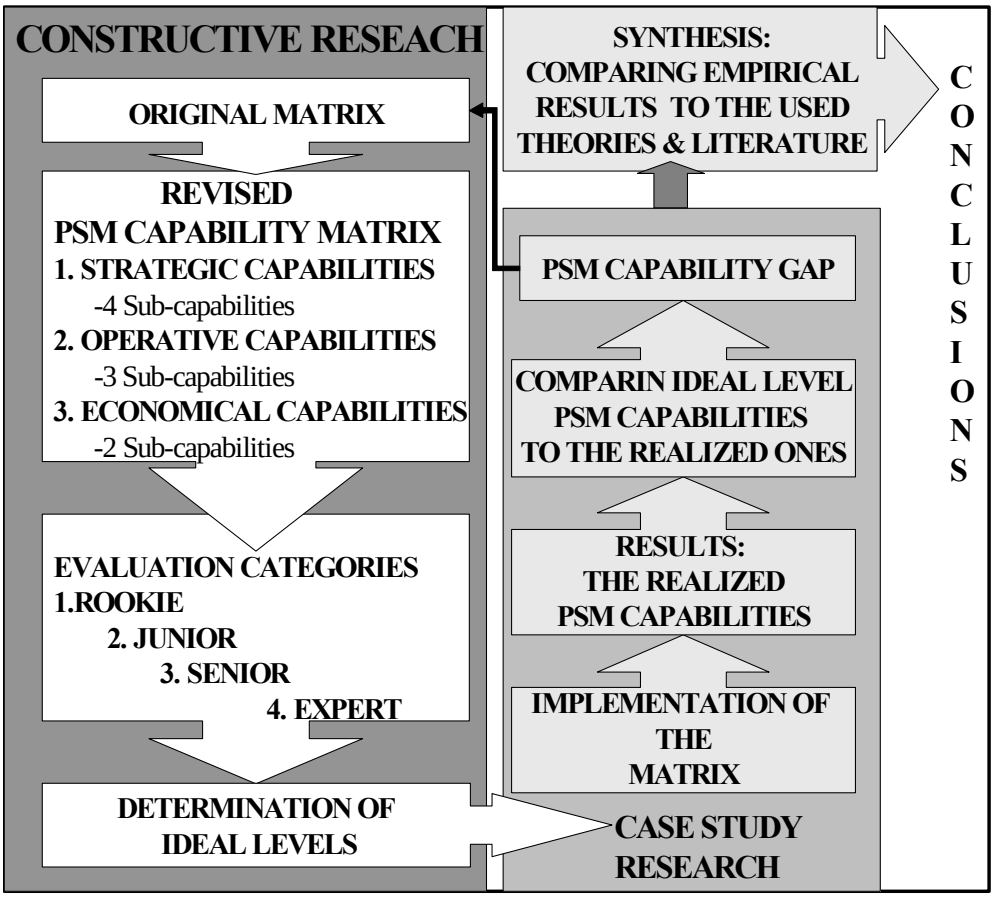

Figure 20. Development process of this study

As illustrated in Figure 20, the original PSM capability matrix (rf. Table 1) was created in the PSM research project as presented previously (Chapter 1). The development of the PSM capability matrix was implemented by the constructive research approach. This study was started with the literature review about the capabilities based on the resource-based and dynamic capabilities views complemented with the literature on PSM as well as the strategic management and organizational theory. Furthermore, the PSM capabilities were classified once again following the original idea of three categories into strategic, operative and economic capabilities with nine sub-capabilities (cf. 20 sub-capabilities of the original matrix presented in Table 1). It should be pointed out that this classification was developed in the original PSM research project and revised in this study. Moreover, the current literature does not provide such a classification

even though the elements are derived from the literature presented in Chapters 1.3 and 3; in other words, such a classification is the first contribution of this study. At this time, the categories were derived from the literature mentioned above, in which they were extensively discussed and supported. Consequently, a different order for these categories was selected. Then the evaluation categories with the appropriate IDEAL levels were identified to reveal four competence categories, namely, rookie, junior, senior and expert, that were derived from the literature and the team analysis discussed previously. Thus, the revised version of the PSM capability matrix was developed as illustrated in Table 2. Case study research was focused on the implementation of the revised PSM capability matrix to find the results. The results were formed by comparing the REALIZED capabilities to the IDEAL ones. Based on this, the PSM capability gap was recognized. Then, the synthesis of the study illustrated the highlights of the study by comparing the empirical results to the theories and literature used in this study (Chapter 6). Finally, the summary of this study with the study limitations and further research were concluded.

7.2. Theoretical and managerial implications

The theoretical implications of this study can be summarized into four topics: i) the revised PSM capability matrix including the PSM sub-capabilities, ii) the detailed evaluation criteria, iii) buyer profiles and iv) PSM capability gaps.

The first theoretical implication of this study is the revised version of the PSM capability matrix discussed in Chapter 4.2. (see Table 2). Even if the topics presented in the matrix are derived from the literature, such a comprehensive picture has not been provided previously. Thus, this matrix is the most significant result of this study.

The second theoretical implication is the detailed evaluation criteria included in the matrix. There were four categories, namely, rookie, junior, senior and expert (rf. Figure 9 and Table 2). Even though the names of the four categories are similar to the study of Axelssons et al. (2005b), it should be noticed that the content of the categories is different. In other words the basic idea of the categories and their names are based on the above study, while the content is developed by the research team of the original PSM research project and revised by the

Author to fit the matrix presented in this study. It should be pointed out that this classification was developed in the original PSM research project and revised in this study, but the current literature does not provide such a classification even if the elements are derived from the literature presented in Chapter 4.

The third theoretical implication of this study is the different buyer profiles for the professional and non-professional buyers that were presented in Chapter 5.3. (rf. Figure 14). It should be pointed out that this classification of the buyer profiles was developed in the original PSM research project and modified in this study. Furthermore, the current literature does not provide such a classification, even if there are number of studies of individual characteristics and profiles, but they are not similar as presented in this study. Thus, this study provides the IDEAL levels for each buyer profile. These levels were not found from the literature, even though the literature on the buyer profiles was utilized as presented in the literature review of the PSM capabilities (Chapter 1.1.3.) and, furthermore, in Chapter 1.2. which presented the discussion of the research gap of this study.

The fourth and final theoretical implication is the identification of the PSM capability gaps that links the theoretical and managerial contribution together. Indeed, the theoretical contribution is related to the comparison of the previous IDEAL levels and the REALIZED levels (current, realized PSM capabilities) to identify the PSM capability gap. While this theoretical implication is focused on the idea of the PSM capability gap, the managerial implication emphasizes the filling of the gap. Dynamic capabilities were also related to the PSM capability gap. If a gap is identified, the organization can renew their PSM capabilities and, thus, create mutual learning and increase their organizational capabilities. And only then, there is potential for dynamic capabilities. The dynamic capabilities in PSM are related to the topics of learning and renewal of PSM intellectual capital. The dynamic capabilities were approached from several other viewpoints, such as disciplines of strategic management, organizational values, learning and human resources that were discussed in the theoretical part of the study (Chapter 3). The dynamic capabilities in PSM were the innovation capabilities, mutual learning and renewal of resources related to issues, such as SRM, CRM, value networks, process development, HRM, innovation capabilities and R&D and partially operative capabilities (i.e. limited to the purchasing and supplier selection processes with the development, mutual learning and

innovations within the process and organization). Based on this, all the elements of the PSM capability matrix can be more or less linked to the process of dynamic capabilities formulation and development and, therefore, the purchasing policy should be identified on such a basis and implemented dynamically. This truly can be characterized as today's actions towards tomorrow's success.

The managerial implications of this study can be summarized into i) the evaluation of the PSM capabilities through the matrix, ii) identification of the PSM capability gaps by providing individual and organizational maps of the gaps, iii) activities to fill the gaps and finally, iv) enhancing the PSM performance and recognizing the linkage to competitive advantage and dynamic capabilities.

The first managerial implication of this study is the evaluation of the PSM capabilities through the matrix. The matrix can be used to identify the PSM capability gaps. This study provided a summary of the individual PSM capabilities to identify the gaps in the organization's PSM capabilities (partial organizational capabilities of PSM). Based on this, the organization is able to define their individual and organizational development areas to be enhanced. Individual knowledge can be more readily bought and sold, and such talents and skills are hired and fired. The significant challenge is the measurement of intellectual capital on the organizational level and to identify what the measurement metrics or indicators are to state the level of PSM capabilities.

The identification of development activities is the second managerial implication of this study along the individual and organizational maps of which the former is not covered in this study due to the privacy of the interviewees and the latter is presented previously (rf. Figures 17 and 18). An individual development map helps the employee to enhance their tasks, routines and skills that are underperforming and, thus, to increase their PSM capabilities related to those operations. An organizational development map can be derived from the individual ones and it can form a comprehensive view of the entire PSM capabilities within the organization, but including the relational capabilities related to the supplier and customer relationships. This study provided the partial organizational capabilities of PSM, while the entire organizations were not covered.

The third managerial implication is filling the PSM capability gaps, both individual and organizational ones. Furthermore, the organizational PSM capabilities can be enhanced by providing individual support to fill the gaps, such as specific courses and education. If there is a larger group of employees that have similar gaps, the organization is able to offer professional support and training to the entire group. Thus, such training should be common to the participants (i.e. the participants have same lacks in their PSM capabilities) and, thus, the theme be aimed at specific themes and topics, where the widest gap can be found. Moreover, common codes, routines and the organization structure should be renewed to find the potential for the dynamic PSM capabilities. It should also be emphasized that the IDEAL levels stated and presented in this study are the minimum levels for the PSM capabilities. Therefore, the organization can set their own ideal levels even higher than discussed in this study.

The fourth and final managerial implication is to enhance PSM performance through such education and development actions that fill the PSM capability gaps. As mentioned, this matrix can be used as a proactive tool to facilitate the recruitment of the purchasing professionals and support the recruitment of the non-professional buyers in other functions. This could lead to higher overall organizational performance and business profits and, indeed, there is potential for competitive advantage even in the long run (rf. sustainable competitive advantage) and this, on the other hand, could be the source of dynamic capabilities as mentioned in the theoretical implications above. Consequently, the strategic and operative PSM capabilities can be developed to enhance the higher performance levels and, thus, towards increasing profits. The strategic view can be performed through the development of the business and purchasing strategies, on which the operative view is based and, thus, operative development is related to the purchasing policy and procedures.

7.3. Review of the methodological discussion with the study limitations

This study was a constructive case study using both constructive and case study research methods. In spite of this discussion in the field of economics, researchers have not clearly

stated how useful or appropriate constructive study is in the research of business economics. Lukka and Kasanen (1993), for instance, strongly defend the position of constructive study in Finnish business administration (see also Puolamäki, 2000). Despite this academic dissension, this study partly implemented the constructive research method in the development of the PSM capability matrix. This method was appropriate because there was lack of literature and empirical studies in this field and, further, there was a practical need for this study in the business world. However, the pure view of the constructive research method refers to the market test of the construct, while the test was only limited in this study because the construct was implemented with a selected amount of purchasing professionals and supportive non-professionals, and not throughout the organization. The case study method was used in the implementation of the construct, the PSM capability matrix. The research process of this case study was presented previously (Chapter 5.1.). The case study was selected due to the nature of the research topic and the purpose of the study. While the capabilities are strongly related to the individual capability context, there were issues related to the sensitive nature of the evaluation. In other words, the investigation target could be sensitive in the issues related to the tasks performing and what the weakness and strengths of the employee are. Thus, individual interview was selected as the method. Generally, the difficulties of case study implementation are related to the analysis of the data, especially to define the appropriate evaluation criteria to perform the analysis. This was also supported in this study because the evaluation categories were difficult to define strictly with specific details, so that the matrix would still be universal and used in many different business fields and organizations. Therefore, the revised PSM capability matrix is only a framework that provides the basic criteria and tools for the identification and evaluation of PSM capabilities. Organizations are able to define their own criteria and, thus, still use this matrix with the detailed evaluation criteria that are more suitable and specific in their business context.

7.3.1. Validity and reliability of the study

This study uses the case study method in implementing the construct as mentioned above. The evaluation of the research quality of the case study method is related to the construct and internal and external validity of the study (Kidder & Judd, 1986; Yin, 1984). The basic view

of the validity in this study was discussed in Chapter 2.5.1., but the above research quality tests are presented in this context. These approaches or tests are used in this study as well, while this validity issue is approached by investigating *the right things* measured in this study; whereas, the reliability of the study is related to the appropriate measurement of these right things (Metsämuuronen, 2001; Olkkonen, 1993) as was discussed previously (Chapter 2.5.2.). In other words, the study results and findings are reliable and, if required, the study can be repeated in the same way as described in this study and, thus, the results should be similar.

Construct validity is related to three topics of i) multiple data sources, ii) establishing the chain of events and iii) having a key informants review (Ellram, 1996). Firstly, the construct validity of this study has been verified by using multiple sources of data such as interviews, pre-questionnaire, literature and other documents. Secondly, this study utilizes the chain of evidence: for example, the interview data was documented both in taped files and written documents based on which the analysis and synthesis of the data were conducted. The project team participated in the data collection and analysis by defining the four evaluation categories and original ideal levels for the categories (which the Author revised to fit the construct of this study). Finally, the key informants from the case organizations examined and approved the collected data (rf. the original collected data). Indeed, in this study, this viewpoint is related to the data analysis and synthesis, while the case organizations have read and approved this entire study.

There is internal validity, whereby the relationship between different theoretical and conceptual definitions is logical and, thus, internal validity is required to revise the consistency of the conclusions, definitions and hypothesis (Grönfors, 1982). In other words, internal validity signifies the solidity of the study itself such as the proper definitions, right choice of theory or the criteria are created in the appropriate way (Metsämuuronen, 2001). Internal validity of this study is connected to i) the liability of the study, so that the concepts and definitions are accurate, ii) the relevance of theories used in this study and iii) the evaluation criteria (cf. the measurement) being appropriately formed and iv) thus, the criteria (cf. indicator/metric) are appropriate to this study, in other words it will evaluate the issues it is supposed to evaluate. The nature of the used definitions and concepts are based on the current literature. The basic definitions of this study, such as purchasing and supply

management (PSM), the different PSM capabilities as strategic, operative and economic ones and the individual and organizational levels were discussed in Chapter 1.1.3. and, further, in Chapter 3 referring to the resource-based and dynamic capability views presenting the theoretical grounds for the concepts. Thus, the theoretical view of this study was also discussed and supported by the purpose and objectives of this study (rf. Chapter 3.3. and 6.1.). The evaluation criteria of this study were based on the literature and team definitions of the IDEAL-level requirements that were discussed in Chapter 4.2. (rf. Figure 9). Accordingly, the PSM capability matrix was supported by the evidence of empirical results and theoretical findings (Chapters 5 and 6) and, thus, this study argues that the evaluation criteria measured the appropriate things in the appropriate way and the study results and findings are valid.

External validity proves the relationship between the theoretical conclusions and the empirical evidence; in other words, it verifies the hypotheses (Grönfors, 1982). In this study, external validity is related to the principles and limitations to which the findings of the study can be generalized as well as the relationship between the theoretical findings and empirical evidence verified by the research object. The PSM capability matrix was implemented in two case organizations, but this is not enough for the broader utilization of the results.

External validity refers to the generalization of the study (Metsämuuronen, 2001). Theoretical representativeness is based on the idea that the initial cases are seen as an example of general phenomena, and then significantly, that data collection is directed by a structured theoretical framework (Yin, 1984). Thus, the case study does not provide statistical evidence or generalization to the study (McCutcheon & Meredith, 1993) as discussed previously in Chapter 2.3.2. of the case study method. As mentioned, this case study is conducted with two case organizations and, therefore, does not provide a statistical significance or generalization. According to Yin (1984), generalization is related to similar concepts and phenomena that may occur in similar investigation contexts. Furthermore, the purpose of the case study is to create a comprehensive and specific view of the research phenomenon through the cases (Stake, 1995) and, thus, this idea has been followed throughout this study.

The reliability of this study was verified in the illustration of the research process (rf. Chapter 2.4.) including the data that was collected in the original PSM research project (rf. Chapter

1.2.2.) that was used in this study. The data collection is closely tied to reliability (Ellram, 1996). Thus, the data coding and analysis were discussed in Chapter 5.1. and synthesis was presented in Chapter 6.1. along the objectives of the study. Consequently, the case study process has been applied in this study as implementing the actual construct, the PSM capability matrix, pointed out previously.

7.3.2. Limitations of the study

There are a few limitations to this study that should be acknowledged. It is difficult to distinguish individual capabilities from organizational ones because individual capabilities are part of organizational capabilities. In this study this problem has been acknowledged, and the focus is on the identification of individual PSM capabilities to create a general PSM capability matrix which facilitates the evaluation of organizational PSM capabilities. As mentioned, the organizational capabilities of PSM were only covered partially. Thus, the second limitation of this study is the evaluation of the entire organization to form a comprehensive picture of the overall organizational capabilities of PSM. The reasons for the partial view were discussed previously. Furthermore, the third limitation is related to the full market test that is required in the constructive research method. While the construct, the PSM capability matrix, was tested and implemented in the two case organizations, the matrix is not further implemented in the case organizations. Generalization is also limited as pointed out above. Even though Case Organization 2 utilized the results of this matrix in their development actions in the PSM context, the full testing is not truly covered at this point of the study. However, such field tests are acknowledged and considered to be implemented in the future. The fourth limitation is that this matrix is obviously limited to the key PSM capabilities, not all the capabilities, due to the scope of this study purpose. As pointed out, many of the dimensions in this matrix are strongly related to other functions and disciplines. Thus, this matrix should be integrated into a broader context with inter-organizational relationships. Finally, there is a need for a more specific classification and presentation of the four evaluation categories with their evaluation criteria. However, this could restrict the implementation of the matrix in general and, thus, this study argues for the matrix presented in this study without detailed evaluation categories. As mentioned previously, the

organization is able to define their own IDEAL levels with higher standards as well as to modify and develop this matrix. Indeed, this is the sincere wish of the Author, as is also that this matrix will be implemented and tested in many fields and organizations to achieve comparative results for the further development of this PSM capability matrix.

The PSM capability matrix is universal and it was created and developed for different sizes and types of organizations. Then, it is possible to examine if the organizations have distinctive requirements and applications to the matrix. It should be pointed out that this PSM capability matrix is, indeed, framed as a general tool to evaluate PSM capabilities. However, each organization can state their own goals and ideal levels to their PSM capabilities, but there is a risk to set them too low and, thus, the results might indicate better results (i.e. lower capability gaps) than should. This could be very dangerous, if the organization also related individual or organizational performance to this matrix, such as individual salary depending on such a capability gap and organizational bonus based on the gaps as well. In these circumstances, the goals could be set so low that the business and capability development will gradually slow down, so that, in the worst case, former leading organizations in the field could find themselves eating the dust of their competitors. This is not the appropriate direction and, by no means, the aim of this matrix. As noted, the “negative” result with the capabilities in the purchasing process and tools can be a reason to consider whether the capabilities of the particular element are “too high” compared to the needed ones or whether there is need for a higher ideal level in general. This point is very interesting for further research as well. In summary, this matrix is a framework, a conceptual tool to facilitate the evaluation of PSM capabilities. It supports the decision-making such as the purchasing process, supplier selection, value network and strategic management, customer and supplier relationship management as well as cost management and performance evaluation.

7.4. Discussion and suggestions for further research

There are several areas to be discussed as the topics of further research: i) PSM as one source of dynamic capabilities including the role of teams and mutual learning to create dynamic capabilities in the PSM context, ii) social responsibility in the field of PSM and finally, iii) the

other dimensions and actions that may impact PSM performance and capabilities. These topics need to be clarified as the important indicators that could have a profound impact in the development of the PSM capability matrix. Generally, these topics are potential areas for further research to integrate PSM and other functions' assignments to form a comprehensive picture of the business development and capability gaps to be filled in the future.

The first topic that requires further research is the role of PSM as one source of dynamic capabilities. This could be approached by investigating the leadership and human resources of PSM as well as the mutual learning both internally within the organization (especially teams) and externally with the supplier and customer relationships.

Today, the public discourse about human resources and their management is focused on leadership more than ever, and employees require that they are appreciated and their work is valuable. But what about the competence of purchasing personnel? The leadership and HRM issues are also significant in the PSM context. Generally, if the question of recruitment has been difficult in the past years, there will be more challenges in the future. This could be the most difficult question in the purchasing function as well. The employee may achieve a different level of individual capabilities and competencies than are the organizational ones and, thus, the capability gap between these two levels should also be identified to enhance the performance of both levels. It could be argued that the recruitment of right people would be the key to the survival in business and, thus, organizational issues such as image, brands and reputation may be in the leading roles in the commitment of purchasing personnel to the organization. Indeed, the organization should recognize the requirements of PSM (incl. the purchasing function professionals, but also the non-professional buyers of other functions) and, thus, create the appropriate strategy to the recruitment of such individuals that fit the organization and teams with the appreciated skills, competencies and capabilities; in other words, this should also be based on the business strategy and, thus, should be a critical part of strategic management. Along this study, the teams and organizational learning are discussed as the most significant part of dynamic capabilities formulation. It would be an interesting topic to investigate the recruitment and leadership in the purchasing function to integrate the cross-functional and team views into this dynamic capabilities context. Furthermore, there is a need for deeper studies and analyses of the PSM capabilities and their significance as the

source of dynamic capabilities and path-dependency of the dynamic capabilities in the PSM context.

The second topic that requires further research in the PSM context is social responsibility including the environmental issues. This social responsibility is linked to PSM in two ways. Firstly, there is the general context to investigate these issues and their impacts in the general business management and strategic views especially in the business strategy, and through the business strategy, these issues impact the purchasing strategy as well. Secondly, another context is related to the research scope of this study as the food industry. It would be very interesting to explore the impacts of social responsibility in the customer needs and satisfaction especially relating to the genetically modified products. Moreover, these GM products may influence the prices and sources of new raw materials and, thus, they could change the supply chain management and entire value networks in this field. In the future, the GM products could be one source of dynamic capabilities in the food industry, but it highly depends on the development of customer perceptions of genetic manipulation in general and the GM products more precisely.

Today, social responsibility is one of the hottest topics in the public media, and the role of individual corporate and the entire business world has been extensively discussed in the social welfare referring to regional employment (local versus global), environmental changes and ethical issues; but corporate social responsibility (CRS) has raised its head in the scientific community (see e.g. Ansett, 2007; Bird et al., 2007; Cetindamar & Husoy, 2007; Cruz, 2008; Kolstad, 2007). In the context of corporate social responsibility the most popular issues investigated have been environmental questions and ethics (Lockett & Moon & Visser, 2006), of which the former is discussed above and the latter refers to the corporate purchasing ethic that should be based on the business strategy. Social responsibility in the field of PSM refers to the manual and policies of purchasing ethic in the corporations as well as the true social responsibility of used purchasing channels, origins of the purchased items and the employment issue. In other words, purchasing ethic should cover the guidelines to the right purchasing practices how to solve difficulties related to the purchasing decision-making, such as the usage of materials produced by child labor, preference of familiar or local employees, corruption, environmental, cultural and religious issues, human rights and other requirements

for the supply chain transparency of the purchased item. Many organizations and different industries may have their own principles about purchasing ethics. However, the current trend towards the increased corporate social responsibility is not recognized in today's business world – not yet at least. Regarding these viewpoints, the purchasing ethic is facing new challenges and demanding tasks such as emotional issues with GM products as discussed above, animal tests with cloning, as well as new and even tighter governmental laws and regulations concerning, for instance, chemicals and their usage and disposal in the future.

Today, the environmental change is most definitely the biggest issue in public discourse all over the world particularly related to environmental pollution and global warming. However, this topic is also strongly related to PSM referring to the total costs, such as rising oil and energy prices that impact the costs of entire value networks including the direct (e.g. material costs) and indirect costs (e.g. process costs), not to mention the R&D costs of new energy sources. In response to these challenges of cost management and green issues, organizations will allocate greater R&D investments in complementary technological knowledge to explore new ways and methods to decrease the costs of raw materials as well as to expand the new channels to sourcing them, or even discover alternative combinations to current products or most definitely, create entirely new alternatives for current products or services. In response to this challenge of green thinking derived from the tighter governmental regulations and higher interest of public media, the organizations are transforming their supply chains into green supply chains (GSC) to meet specified environmental performance criteria, promote responsible green behavior in the chain and facilitate suppliers to recognize the significance of resolving initiatives (Lu & Wu & Kuo, 2007). These study results pointed out the crucial role of customers and value networks and these are assumed to increase in the future as was emphasized by several interviewees. Customer perceptions and requirements of environmental issues will also impact the corporate reputation, but also social responsibility; a corporation is, for example, committed to environmentally friendly products and processes influencing the customers' intention to purchase green products of this corporation (D'Souza et al., 2006). In response to the rising public awareness and customers' perceptions of the green products and services, PSM should also shift towards these green-driven criteria in the entire purchasing process and decision-making. Thus, organizations must pay attention to the governance of PSM to better allocate their limited resources.

The final and third topic that requires further research in the PSM context is the impact of other function assignments and changes to the PSM performance and capabilities. Indeed, this topic refers to the need for inter-organizational studies to explore the internal and external relational capabilities and how changes in these resources would impact the entire picture of capabilities and performance. The internal capabilities within the organization are related to the purchasing and other functions, and external capabilities are related to the supplier and customer relationships. This creates a comprehensive picture of the entire organization with the key relational relationships and, thus, the full view of the development areas in the organizational capabilities. *Indeed, this study has frequently mentioned one development project of this study, namely, a self-evaluation assessment to define the entire picture of all the organizational capabilities of PSM. This is still an ongoing project and has not been implemented in field tests.*

This matrix is only a framework to evaluate the PSM capabilities and, thus, these requirements to the ideal levels are generalized and organizations can use their own applications of these ideal levels, but increasing them rather than decreasing. As noted, the "negative" result of the capabilities of the purchasing process and tools can be proposed to suggest that the capabilities of the particular element are "too high" compared to the needed ones or that there is need for higher ideal level overall. This point is a very interesting field for further research as well as to set the IDEAL levels even higher or develop the evaluation criteria to be more specific. Indeed, how can we integrate processes, skills and knowledge to achieve higher profits and, thus, what collaborative skills and capabilities should we have? In summary, getting the appropriate combination of resources is not like winning the jackpot. Yes, it might be as difficult as winning the lottery, when the likelihood can be once in a lifetime; however, real business success does not depend on the roll of the dice. Instead, it will – or more precisely – should be the case of resource management that have opportunities, ability and willingness to integrate and utilize critical resources to create organizational dynamic capabilities also in the long run. And that is the true master of the business – today's reality, yesterday's understanding and future's potential for crucial knowledge.

REFERENCES

Afuah, A., (2000), "How much do your co-opetitors' capabilities matter in the face of technological change?", *Strategic Management Journal*, Vol. 21, No. 3, pp. 387-404

Alasuutari, P., (1999), Laadullinen tutkimus, 3. uudistettu painos, Osuuskunta Vastapaino, Tampere, Finland, [in Finnish]

Amit, R., & Schoemaker, J., (1993), "Strategic assets and organizational rent", *Strategic Management Journal*, Vol. 14, pp. 33-46

Ansett, S., (2007), "Mind the gap: A journey to sustainable supply chains", *Employ Respons Rights Journal*, Vol. 19, No. 4, pp. 295-303

Argyris, C., & Schön, D., (1978), Organizational Learning, Addison-Wesley, Reading, MA, USA

Assiri, A., & Zairi, M., & Eid, R., (2006), "How to profit form the balanced scorecard – An implementation roadmap", *Industrial Management & Data Systems*, Vol. 106, No. 7, pp. 937-952

Atkinson, P., & Delamont, S., & Hammersley, M., (1988), "Qualitative research traditions: A British response to Jacob", *Review of Education Research*, Vol. 58, No. 2, pp. 231-250

Axelsson, B., & Rozemeijer, F., & Wynstra, F., (2005a), "Exploring Change Issues in Strategic Sourcing", in Axelsson, B., & Rozemeijer, F., & Wynstra, F., (eds.), Developing Sourcing Capabilities, John Wiley & Sons Ltd, Chichester, UK

Axelsson, B., & Bouwmans, P., & Rozemeijer, F., & Wynstra, F., (2005b) "Developing and managing knowledge and competencies" in Axelsson, B., & Rozemeijer, F., & Wynstra, F., (eds.), Developing Sourcing Capabilities, John Wiley & Sons Ltd, Chichester, UK

Baily, P., & Farmer, D., & Jessop, D., & Jones, D., (2005), Purchasing Principles & Management, 9th Edition, Prentice Hall, England, UK

Barney, J.B., (1986), "Strategic factor markets", *Management Science*, Vol. 32, pp. 1231-41

Barney, J.B., (1991), "Firm resources and sustained competitive advantage", *Journal of Management,* Vol. 17, No. 1, pp. 99-120

Barney, J.B., (2001), "Is the Resource-Based "View" a useful perspective for strategic management research? Yes.", *Academy of Management Review*, Vol. 26, No. 1, pp. 41-56

Bhatnagar, R., & Viswnathan, S., (2000), "Re-Engineering global supply chains: Alliances between manufacturing firms and global logistics service providers", *International Journal of Physical Distribution & Logistics Management*, Vol. 30, No. 1, pp. 13-34

Bird, R., & Hall, A., & Momentè, F., & Reggiani, F., (2007), "What corporate social responsibility activities are valued by the market?", *Journal of Business Ethics*, Vol. 76, No. 2, pp. 189-206

Birkinshaw, J., & Sheehan, T., (2002), "Managing the knowledge life cycle", *MIT Sloan Management Review*, Fall 2002, pp. 75-83

Blomqvist, KM., (2002), Partnering in the dynamic environment the role of trust in asymmetric technology partnership, Diss. Acta Universitatis Lappeenrantaensis 122, Digipaino, Lappeenranta, Finland

Bogdan, R., & Taylor, S., (1975), Introduction to Qualitative Research Methods, Wiley, New York, USA

Boisot, M., (1998), Knowledge assets: Securing competitive advantage in the information economy, Oxford University Press, NY, USA

Browning, J., & Zabriskie, N., & Huellmantel. A., (1983), “Strategic purchasing planning”, *Journal of Purchasing & Materials Management*, Vol. 19, No. 1, pp. 19-24

Bruce, M., & Leverick, F., & Littler, D., & Wilson, D., (1995), “Success factors for collaborative product development: A study of suppliers of information and communication technology”, *R&D Management*, January 1995, pp. 33-44

Bryman, A., (1988), Quantity and Quality in social research, Unwin Hyman, London, UK

Bryman, A., & Burgess, R.G., (eds.), (1994), Analyzing Qualitative Data, Routledge, London, UK and New York, USA

Brännback, M., & Wiklund, P., (2001), “A new dominant logic and its implications for knowledge management: A case study of the Finnish food industry”, *Knowledge and Process Management*, Vol. 8, No. 4, pp. 197-206

Buono, A., (1997), “Enhancing strategic partnerships: Intervening in network organizations”, *Journal of Organizational Change Management*, Vol. 10, No. 2 pp. 251-266

Burgess, R.G., (1982), Field Research: A Sourcebook and Field Manual, Allen & Unwin, London, UK

Burgess, R.G., (1984), In the Field: An Introduction to Field Research, Allen & Unwin, London, UK

Burnes, B., & Whittle, P., (1995), “Supplier development: Getting started”, *Logistics Focus*, February 1995, pp. 10-12

Burnes, B., & New, S., (1997), “Collaboration in customer-supplier relationships: Strategy, operations and the function of rhetoric”, *International Journal of Purchasing and Materials Management*, Fall97, Vol. 33, No. 4, pp. 10-17

Burt, D., & Dobler, D., & Starling, S., (2003), World Class Supply Management: A Key to Supply Chain Management, 7th Edition, McGraw-Hill, New York, USA

Caddick, J., & Dale, B., (1987), "The determination of purchasing objectives and strategies: some key influences", *International Journal of Physical Distribution and Materials Management*, Vol. 17, No.3, pp. 5-16

Campbell, D.T., & Fiske, D., (1959), "Convergent and discriminant validation by the multitrait multimethod", *Psychological Bulletin*, Vol. 56, pp. 81-105

Carr, A., & Pearson, J., (1999), "Strategically managed buyer-supplier relationships and performance outcomes", *Journal of Operations Management*, Vol. 17, No. 5, pp. 497-519

Carr, A., & Smeltzer, L., (1997), "An empirically based operational definition of strategic purchasing", *European Journal of Purchasing and Supply Management*, Vol. 3, No. 4, pp. 199-207

Carr, A., & Smeltzer, L., (1999), "The relationship of strategic purchasing to supply chain management", *European Journal of Purchasing and Supply Management*, Vol. 5, No. 4, pp. 43-51

Carr, A., & Smeltzer, L., (2000), "An empirical study of the relationships among purchasing skills and strategic purchasing, financial performance and supplier responsiveness", *The Journal of Supply Chain Management*, Summer 2000, pp. 40-54

Carter, J., & Narasimhan, R., (1996), "Purchasing and supply management: Future directions and trends", *International Journal of Purchasing and Materials Management;* Vol. 32, No. 4, pp. 2-12

Cepeda, G., & Vera, D., (2007), "Dynamic capabilities and operational capabilities: A knowledge management perspective", *Journal of Business Research*, Vol. 60, No.5, pp. 426-437

Cetindamar, D., & Husoy, K., (2007), "Corporate social responsibility practices and environmentally responsible behavior: The case of the United Nations Global Compact", *Journal of Business Ethics*, Vol. 76, No., 2, pp. 163-176

Charmaz, K., (2000), "Grounded Theory: Objectivist and Constructivist Methods", In Denzin, N.K. & Lincoln, Y.S., (eds.), Handbook of Qualitative Research, 2th. Edition, SAGE, USA

Chen, I., & Paulraj, A., & Lado, A., (2004), "Strategic purchasing, supply management and firm performance", *Journal of Operations Management*, Vol. 22, No. 5, pp. 505-523

Chesbrough, H., & Teece, D., (1996), "When is virtual virtuous? Organizing for innovation", *Harvard Business Review*, January-February 1996, pp. 65-73

Choy, K., & Lee, W., (2002), "A generic tool for the selection and management of supplier relationships in an outsourced manufacturing environment: The application of case based reasoning", *Logistics Information Management*, Vol. 15, No. 4, pp. 235-253

Coase, R., (1937), "The Nature of the Firm", *Economica*, Vol. 4, pp. 386-405

Cohen, W., & Levinthal, D., (1990), "Absortive capacity: A new perspective on learning and innovation", *Administrative Science Quarterly*, Vol. 35, pp. 128-52

Conner, K., (1991), "A historical comparison of Resource-Based Theory and five schools of thought within industrial organisation economics: Do we have a new theory of the firm?", *Journal of Management*, Vol. 17, No. 1, pp. 121-154

Cousins, P., (2002), "A conceptual model for managing long-term inter-organizational relationships", *European Journal of Purchasing & Supply Management*, Vol. 8, No. 2, pp. 71-82

Cousins, P., (2005), “The alignment of appropriate firm and supply strategies for competitive advantage”, *International Journal of Operations & Production Management*, Vol. 25, No. 5, pp. 403-428

Cousins, P., & Spekman, R., (2003), “Strategic supply and the management of inter- and intra-organizational relationships”, *Journal of Purchasing & Supply Management*, Vol. 9, No. 1, pp. 19-29

Cox, A., (1996), “Relational competence and strategic procurement management”, *European Journal of Purchasing and Supply Management*, Vol. 2, No. 1, pp. 57-70

Cox, A., (1997), Business success: A way of thinking about strategy, critical supply chain assets and operational best practice, Earlgate Press, Winteringham, UK

Cox, A., & Thompson, I., (1997), ”Fit for purpose” contractual relations: Determing a theoretical framework for construction projects”, *European Journal of Purchasing & Supply Management*, Vol. 3, No.3, pp. 127-135

Cruz, J., (2008), “Dynamics of supply chain networks with corporate social responsibility through integrated environmental decision-making”, *European Journal of Operational Research*”, Vol. 184, No. 3, pp. 1005-1031

Cyert, R., & Kumar, P., & Williams, J., (1993), “Information, market imperfections and strategy”, *Strategic Management Journal*, Vol. 14, Winter special, pp. 47-58

De Toni, A., & Nassimbeni, G., (2000), “Just-in-time purchasing: An empirical study of operational practices, supplier development and performance”, *Omega*, Vol. 28, No. 6, pp. 631-651

Deeds, D., & DeCarolis, D., & Coombs, J., (1999), “Dynamic capabilities and new product development in high technology ventures: An empirical analysis of new biotechnology firms”, *Journal of Business Venturing*, Vol. 15, No. 3, pp. 211-229

Demsetz, H., (1973), "Industrial structure, market rivalry and public policy", *Journal of Law and Economics*, Vol. 16, pp. 1-10

Demsetz, H., (1974), "Two Systems of Belief about Monopoly", in Demsetz, H., (1989), Efficiency, Competition and Policy, Basil Blackwell, Oxford, UK

Denzin, N.K., (1970), The research Act, Aldine, Chicago, USA

Denzin, N.K., (1978), The research Act: A theoretical introduction to sociological methods, 2nd Edition, McGraw-Hill, New York, USA

Denzin, N.K., & Lincoln, Y.S., (1998), "Entering the Field of Qualitative Resarch", In Denzin, N.K. & Lincoln, Y.S., (eds.), Strategies of Qualitative Inquiry, Thousand Oaks: SAGE, USA

Denzin, N.K., & Lincoln, Y.S., (2000), "Introduction: The Discipline and Practice of Qualitative Research", In Denzin, N.K. & Lincoln, Y.S., (eds.), Handbook of Qualitative Research, 2nd Edition, SAGE, USA

Denzin, N.K., & Lincoln, Y.S., (2003), "Introduction: The Discipline and Practice of Qualitative Research", In Denzin, N.K. & Lincoln, Y.S., (eds.), Strategies of Qualitative Inquiry, 2nd Edition, Thousand Oaks: SAGE, USA

Dey, I., (1995), Qualitative data analysis. A user-friendly guide for social scientists, 2nd Edition, Routledge, London, UK

Diesing, P., (1971), "Discovery of substantive theory: A basic strategy underlying qualitative research", *American Behavioral Scientist*, Vol. 8, pp. 5-12

Dobler, D., & Burt, D., (1996), Purchasing and Supply Management, Text and Cases, 6th Edition, McGraw-Hill, Singapore

Doney, P., & Cannon, J., (1997), "An examination of the nature of trust in buyer-seller relationships", *Journal of Marketing*, Vol. 61, No. 2, pp. 34-51

Douglas, J.D., (1976), Investigative Social Research, SAGE, Beverly Hills, CA, USA

Drucker, P., (1992), Post-Capitalist Society, Butterworth Heinemann, London, UK

D'Souza, C., & Taghian, M., & Lamb, P., & Peretiatkos, R., (2006), "Green products and corporate strategy: An empirical investigation", *Society and Business Review*, Vol. 1, No. 2, pp. 144-157

Dubois, A., (2003), "Strategic cost management across boundaries of firms", *Industrial Marketing Management*, Vol. 32, No. 5, pp. 365-374

Dussauge, P., & Garrette, B., & Mitchell, W., (2000), "Learning form competing partners: Outcomes and durations of scale and link alliances in Europe, North America and Asia", *Strategic Management Journal*, Vol. 21, No. 2, pp. 99-126

Dyer, J., & Cho, D., & Chu, W., (1998), "Strategic supplier segmentation: The next "Best Practice" in supply chain management", *California Management Review*, Vol. 40, No. 2, pp. 58-68

Dyer, J., & Singh, H., (1998), "The relational view: Cooperative strategy and sources of interorganizational competitive advantage", *Academy of Management Review*, Vol. 23, No. 4, pp. 660-679

Dyer, J., & Kale, P., & Singh, H., (2001), "How to make strategic alliances work", *MIT Sloan Management Review*, Vol. 42, No. 4, pp. 37-43

Easton, L., & Murphy, D., & Pearson, J., (2002), “Purchasing performance evaluation: With data envelopment analysis”, *European Journal of Purchasing & Supply Management*, Vol. 8, No. 3, pp. 123-134

Ehrnrooth, J., (1990), ”Intuitio ja analyysi”, Mäkelä, K., (toim.), teoksessa Kvalitatiivisen aineiston tulkinta ja analyysi, Gaudeamus, Helsinki, Finland, [in Finnish]

Eisenhardt, K.M., (1989), “Building theories from case study research”, *Academy of Management Review*, Vol. 14, No. 4., pp. 532-550

Eisenhardt, K.M., & Martin, J., (2000), “Dynamic capabilities: What are they?”, *Strategic Management Journal*, Vol. 21, No. 10/11, pp. 1105-1121

Ellram, L., (1990), “The supplier selection decision in strategic partnerships”, *Journal of Purchasing and Materials Management*, Vol. 26, No. 4, pp. 8-14

Ellram, L., (1991), “A managerial guideline for the development and implementation of purchasing partnerships”, *International Journal of Purchasing and Materials Management*, Vol. 27, No. 2, pp. 2-8

Ellram, L., (1992), “Patterns in international alliances”, *Journal of Business Logistics*, Vol. 13, No. 1, pp. 1-25

Ellram, L., (1993), “A framework for the total cost of ownership”, *International Journal of Logistics Management*, Vol. 4, No. 2, pp. 49-60

Ellram, L., (1995), “Partnering pitfalls and success factors”, *International Journal of Purchasing and Materials Management*, Vol. 31, No. 2, pp. 35-44

Ellram, L., (1996), “The use of the case study method in logistics research”, *Journal of Business Logistics*, Vol. 17, No. 2, pp. 93-138

Ellram, L., & Carr, A., (1994), "Strategic purchasing: A history and review of the literature", *International Journal of Purchasing and Materials Management*, Vol. 30, No. 2, pp. 9-18

Ellram, L., & Edis, O., (1996), "A case study of successful partnering implementation", *International Journal of Purchasing and Materials Management*, Fall 1996, pp. 20-28

Ellram, L., & Hendrick, T., (1995), "Partnering characteristics. A dyadic perspective", *Journal of Business Logistics*, Vol. 16, No. 1, pp. 41-64

Ellram, L., & Siferd, S., (1998), "Total cost of ownership: A key concept of strategic cost management", *Journal of Business Logistics*, Vol. 19, No. 1, pp. 55-84

Eskola, A., (1966), Sosiologian Tutkimusmenetelmät II, 2. painoksen toinen muuttumaton lisäpainos (1975), WSOY, Porvoo-Helsinki, Finland, [in Finnish]

Eskola, J., & Suoranta, J., (1998), Johdatus laadulliseen tutkimukseen, Vastapaino, Tampere, Finland, [in Finnish]

Faes, W., & Knight, L., & Matthyssens, P., (2001), "Buyer profiles: An empirical investigation of changing organizational requirements", *European Journal of Purchasing & Supply Management*, Vol. 7, No. 3, pp. 197-208

Farmer, D., (1972), "The impact of supply markets on corporate planning", *Long Range Planning*, Vol. 5, No. 1, pp. 10-15

Finney, R.Z., & Campbell, N.D., & Powell, C.M., (2005), "Strategies and resources: Pathways to success?", *Journal of Business Research*, Vol. 58, No. 12, pp. 1721-1729

Ford, D., & Gadde, L-E., & Håkansson, H., & Lundgren, A., & Snehota, I., & Turnbull, P., & Wilson, D., (1998), Managing Business Relationships, John Wiley & Sons, Chichester, England, UK

Foss, N. J., (1996), “Whither the Competence Perspective” in Foss, N.J., and Knudsen, C., (eds), Towards a Competence Theory of the Firm, Routledge, London, UK

Foss, N.J., & Knudsen, C., & Montgomery, C.A., (1996), “An Exploration of Common Ground: Integrating Evolutionary and Strategic Theories of the Firm”, in Montgomery, C.A., (ed.), Resource-Based and Evolutionary Theories of the Firm, Kluwer Academic Publishers, Massachussetts, USA

Foss, N.J., & Robertson, P.L., (2000), Resources, Technology and Strategy, Routledge, Oxford University Press, UK

Frankel, R., & Whipple, J., & Frayer, D., (1996), “Formal versus informal contracts: Achieving alliance success”, *International Journal of Physical Distribution & Logistics Management*, Vol. 26, No. 3, pp. 47-63

Gadde, L-E., & Håkansson, H., (1994), “The changing role of purchasing: Reconsidering three strategic issues”, *European Journal of Purchasing and Supply Management*, Vol. 1, No. 1, pp. 27-35

Gammelgaard, B., & Larson, P., (2001), “Logistics skills and competencies for supply chain management”, *Journal of Business Logistics*, Vol. 22, No. 2, pp. 27-50

Garret, A., (1964), Haastattelun periaatteet ja menetelmät, Original Book ”Interwieving, Its Principles and Methods”, WSOY, Porvoo, Finland, [in Finnish]

Gentry, J., (1996), “Carrier involvement in buyer-supplier strategic partnerships”, *Logistics Information Management*, Vol. 9, No.6, pp. 54-61

Giunipero, L., & Percy, D., (2000), “World-Class purchasing skills: An empirical investigation”, *Journal of Supply Chain Management*, Vol. 36, No. 4, pp. 4-13

Gluck, F., & Kaufman, S., & Walleck, A.S., (1982), "The four phases of strategic management", *Journal of Business Strategy*, Winter 1982, pp. 9-21

Grant, R., (1991), "The Resource-Based Theory of the competitive advantage: Implications for strategy formulation", *California Management Review*, Vol. 33, No. 3, pp. 114-135

Grant, R., (1996), "Prospering in dynamically-competitive environments: Organizational capability as knowledge creation", *Organizational Science*, Vol. 7, pp. 375-387

Grant, R., (2002), Contemporary Strategy Analysis – Concepts, Techniques and Applications, 4th Edition, Blackwell Publishers, Oxford, UK

Grönfors, M., (1982), Kvalitatiiviset kenttätyömenetelmät, 2.painos, WSOY, Porvoo-Helsinki-Juva, Finland, [in Finnish]

Grönroos, C., (1990), Nyt kilpaillaan palveluilla, Weilin+Göös, Espoo, Finland, [in Finnish]

Hagedoorn, J., (1993), "Understanding the rationale of strategic technology partnering: Interorganizational modes of cooperation and sectoral differences", *Strategic Management Journal*, Vol. 14, No. 5, pp. 371-385

Halfpenny, P., (1979), "The analysis of qualitative data", *Sociological Review*, Vol. 27, No. 4, pp. 799-825

Hall, R., (1993), "A framework for linking intangible resources and capabilities to sustainable competitive advantage", *Strategic Management Journal*, Vol. 15, No. 8, pp. 607-618

Hall, R., (1999), "Rearranging risks and rewards in a supply chain", *Journal of General Management*, Vol. 24, No. 3, pp. 22-32

Hamel, G., (1991), "Competition for competence and inter-partner learning within international strategic alliances", *Strategic Management Journal*, Vol. 12, Summer Special Issue, pp. 83-103

Harland, C.M., (1996), "Supply chain management: Relationships, chains and networks", *British Journal of Management*, Vol. 7, Special Issue, pp. 63-80

Harland, C.M., & Lamming, R., & Cousins, P., (1999), "Developing the concept of supply strategy", *International Journal of Operations & Production Management*, Vol. 19, No. 7, pp. 650-673

Harland, C.M., & Knight, L.A., (2001), "Supply network strategy: Role and competence requirements", *International Journal of Operations & Production Management*, Vol. 21, No. 4, pp. 476-489

Harland, C.M., & Zheng, J., & Johnsen, T.E., & Lamming, R., (2004), "A conceptual model for researching the creation and operation of supply networks", British Journal of Management, Vol. 15, No. 1, pp. 1-21

Helfat, C., & Peteraf, M., (2003), "The dynamic resource-based view: capability lifecycles", *Strategic Management Journal*, Vol. 24, No. 10, pp. 997-1010

Henderson, R., & Cockburn, I., (1994), "Measuring competence: exploring firm-effects in pharmaceutical research", *Strategic Management Journal*, Vol. 15, Winter special, pp. 63-84

Hendricks, K., & Singhal, V., (2001), "Firm characteristics, total quality management, and financial performance", *Journal of Operations Management*, Vol. 19, No. 3, pp. 269-285

Hirsjärvi, S., & Hurme, H., (1985), Teemahaastattelu, 3. painos, Gaudeamus, Helsinki, Finland, [in Finnish]

Hirsjärvi, S., & Hurme, H., (1991), Teemahaastattelu, 5. painos, Gaudeamus, Helsinki, Finland, [in Finnish]

Hirsjärvi, S., & Hurme, H., (2000), Tutkimushaastattelu: Teemahaastattelun teoria ja käytäntö, Yliopistopaino, Helsinki, Finland, [in Finnish]

Hirsjärvi, S., & Remes, P., & Sajavaara, P., (2002), Tutki ja Kirjoita, Tummavuoren kirjapaino Oy, Vantaa, Finland, [in Finnish]

Hoopes, D., & Madsen, T., & Walker, G., (2003), "Guest editors' introduction to the special issue: Why is there a resource-based view? Toward a theory of competitive heterogeneity, *Strategic Management Journal*, Vol. 24, No. 10, pp. 889-902

Hughes, J., & Ralf, M., & Michels, B., (1998), Transform Your Supply Chain: Releasing Value in Business, International Thomson Business Press, London, UK

Hunt, L., (2007), "Buyers to the rescue", *Supply Management*, Vol. 12, No. 5, pp. 27-29

Hunt, S., (2000), "Synthesising Resource-Based Evolutionary and Neoclassical Thought: Resource-Advantage Theory as a General Theory of Competition", in Foss, N., & Robertson, P., (eds.), Resources, Technology and Strategy – Explorations in the Resource-Based Perspective, Routledge, London, UK

Huczynski, A., & Buchanan, D., (2007), Organizational Behaviour, 6th Edition, Prentice Hall, Edinburgh, UK

Huysman, M., (1999), "Balancing Biases: A Critical Review of the Literature on Organizational Learning", in Easterby-Smith, M., & Araujo, L., & Burgoyne, J., (eds.), Organizational Learning and the Learning Organization, SAGE, London, UK

James, W., (1956), The Will to Believe and Other Essays in Popular Philosophy, (original 1897), Dover, New York, USA

Jacob, E., (1987), "Qualitative research traditions: A review", *Review of Educational Research*, Vol. 57, No.1, pp. 1-50

Jacob, E., (1988), "Clarifying qualitative research: A focus on traditions", *Educational Researcher*, Vol. 17, No.1, pp. 16-24

Jalava, J., & Aulin-Ahmavaara, P., & Alanen, A., (2007), Intangible Capital in The Finnish Business Sector 1975-2005, ETLA, The Research Institute of the Finnish Economy, Discussion papers No. 1103, Helsinki, Finland

Janesick, V.J., (1994), "The Dance of Qualitative Research Design: Metaphor, Methodolatry, and Meaning" in Denzin, N.K. & Lincoln, Y.S. (Eds.), Handbook of Qualitative Research, Thousand Oaks, SAGE, USA

Janesick, V.J., (1998), "The Dance of Qualitative Research Design: Metaphor, Methodolatry, and Meaning" in Denzin, N.K. & Lincoln, Y.S. (Eds.), Strategies of Qualitative Inquiry, Thousand Oaks, SAGE, USA

Janesick, V.J., (2003), "The Choreography of Qualitative Research Design: Minuets, Improvisations and Crystallization" in Denzin, N.K. & Lincoln, Y.S. (Eds.), Strategies of Qualitative Inquiry, 2nd Edition, Thousand Oaks, SAGE, USA

Jap, S., (2001), "Perspectives on joint competitive advantages in buyer-supplier relationships", *International Journal of Research in Marketing*, Vol. 18, No. 1-2, pp. 19-35

Jick, T.D., (1979), "Mixing qualitative and quantitative methods: Triangulation in action", *Administrative Science Quarterly*, Vol. 24, No. 4, pp. 602-611

Johnson, P., & Harris, D., (2002), "Qualitative and Quantitative Issues in Research Design", in Partington, D., (ed.), Essential Skills for Management Research, SAGE, London, UK, Thousand Oaks, USA, New Delhi, India

Johnson, P., & Leenders, M., & Fearon, H., (2006), "Supply's growing status and influence: A sixteen-year perspective", *The Journal of Supply Chain Management*, Vol. 42, No., 2, pp. 33-42

Jones, G., (2001), Organization Theory –Text and Cases, Prentice Hall

Jumpponen, J., & Kouchtch, S., & Lintukangas, K., & Panfilii, V., & Smirnova, M., & Virolainen, V-M., (2007a), "The levels of strategic purchasing and supply management in Finland and Russia", proceedings of the 23rd IMP conference, August 30 - September 1, 2007, Manchester, UK

Jumpponen, J., & Kouchtch, S., & Lintukangas, K., & Smirnova, M., & Virolainen, V-M., (2007b), "Current state of purchasing and supply management in Finland and in Russia - A Cross Country Survey", proceedings of the 14th EUROMA conference, June 17-20, 2007, Ankara, Turkey

Kale, P., & Dyer, J., & Singh, H., (2002), "Alliance capability, stock market response and long-term alliance success: The role of the alliance function", *Strategic Management Journal*, Vol. 23, No. 8, pp. 747-767

Kallio, J., & Saarinen, T., & Tinnilä, M., & Vepsäläinen, A., (2000), "Measuring delivery process performance", *International Journal of Logistics Management*, Vol. 11, No. 1, pp. 75-87

Kaplan, R., & Norton, P., (1996), The balanced scorecard: Translating strategy into action, Harvard Business School Press, Boston, USA

Kaplan, S., & Beinhocker, E., (2003), "The real value of strategic planning", *MIT Sloan Management Review*, Winter 2003, Vol. 44, No. 2, pp. 71-76

Kasanen, E., & Lukka, K., & Siitonen, A., (1991), Konstruktiivinen tutkimusote liiketaloustieteessä, *Liiketaloudellinen aikakauskirja*, Vol. 40, No. 3, pp. 301-327, [in Finnish]

Kauhanen, J., (2006), Henkilöstövoimavarojen johtaminen, 8. uudistettu painos, WSOY, Helsinki, Finland [in Finnish]

Kidder, L., & Judd, C.M., (1986), Research Methods in Social Relations, 5th Edition, Holt, Rinehart & Winston, New York, USA

Knight, L., & Harland, C., & Walker, H., & Sutton, R., (2005), "Competence requirements for managing supply in interorganizational networks", *Journal of Public Procurement*, Vol. 5, No. 2, pp. 210-234

Kogut, B., (1988), "Joint ventures: Theoretical and empirical perspectives", *Strategic Management Journal*, Vol. 9, No. 4, pp. 39-52

Kogut, B., (1989), "Stability of joint ventures: Reciprocity and competitive rivalry", *Journal of Industrial Economics*, Vol. 38, pp. 183-198

Kolstad, I., (2007), "Why firms should not always maximize profits", *Journal of Business Ethics,* Vol. 76, No. 2, pp. 137-145

Koskinen, A., & Lankinen, M., & Sakki, J., & Kivistö, T., & Vepsäläinen, A., (1995), Ostotoiminta yrityksen kehittämisessä, Weilin + Göös, Espoo, Finland, [in Finnish]

Kothandaraman, P., & Wilson, D., (2001), "The future of competition – Value-creating networks", *Industrial Marketing Management*, Vol. 30, No. 4, pp. 379-389

Kraatz, M., & Zajac, E., (2001), ""How organizational resources affect strategic change and performance in turbulent environments: Theory and evidence", *Organizational Science*, Vol. 12, No. 5, pp. 632-657

Kraljic, P., (1983), “Purchasing must become supply management”, Harvard Business Review, Vol. 61, No. 5, pp. 109-117

Kvale, S., (1989), Issues of Validity in Qualitative Research, Studentlitteratur, Lund, Sweden

Kyläheiko, K., & Sandström, J., & Virkkunen, V., (2002), ”Dynamic capability view in terms of real options”, *International Journal of Production Economics*, Vol. 80, No. 1, pp. 65-83

Large, R., & Giménez, C., (2006), “Oral communication capabilities of purchasing managers: Measurement and Typology”, *The Journal of Supply Chain Management*, Spring 2006, pp. 17-32

La Londe, B., & Cooper, M., (1987), Partnerships in Providing Customer Service, A Third Party Perspective, Council of Logistics Management, Oakbrook, Illinois, USA

Lambert, D., & Burduroglu, R., (2000), “Measuring and selling the value of logistics”, *The International Journal of Logistics Management*, Vol. 11, No. 1, pp. 1-17

Lamming, R., (1985), “The future of purchasing: Developing lean supply”, in Lamming, R., & Cox, A., (eds.), Strategic Procurement Management in the 1990s, Earlsgate Press

Lamming, R., (1993), Beyond Partnership: Strategies for Innovation and Lean Supply, Prentice-Hall: New York, USA

Leenders, M., (1966), “Supplier development”, *Journal of Purchasing*, Vol. 12, No. 4, pp. 47-62

Lei, D., & Hitt, M. & Bettis, R., (1996), ”Dynamic core competencies through meta-learning and strategic context”, *Journal of Management*, Vol. 22, No. 4, pp. 549-569

Leiman, M., & Toivonen, V-M., (1991), ”Kadonnutta reliabiliteettia etsimässä”, *Psykologia* 26, pp. 180-186, [in Finnish]

Leonard-Barton, D., (1992), "Core capabilities and core rigidities: a paradox in managing new product development", *Strategic Management Journal*, Vol. 13, No. 5, pp. 363-380

Leonard-Barton, D., (1995), Wellsprings of Knowledge, Harvard Business School Press, Boston, USA

Levi, I., (1967), Gambling With Truth, Alfred A. Knopf, New York, USA

Levinthal, D., & Myatt, J., (1994), "Co-evolution of capabilities and industry: The evolution of mutual fund processing", *Strategic Management Journal*, Vol. 15, Winter special, pp. 46-62

Lincoln, Y.S., & Guba, E.G., (2003), "Paradigmatic Controversies, Contradictionas and Emerging Confluences" in Denzin, N.K., & Lincoln, Y.S., (eds), The Landscape of Qualitative Research; Theories and Issues, 2th Edition, SAGE, USA

Lintukangas, K., (2007), "Supplier relationship management capability in global purchasing", proceedings of the LRN conference, September 5-7, 2007, Hull, UK

Lintukangas, K., & Peltola, S., & Vesterinen, T., & Virolainen, V-M., (2007), "Current state of supply management, Survey study in Finland", proceedings of the 16th IPSERA conference, April 1-4, 2007, Bath, UK

Lippman, S., & Rumelt, R., (2003), "A bargaining perspective on resource advantage", *Strategic Management Journal*, Vol. 24, No. 11, pp. 1069-1086

Lockett, A., (2005), "Edith Penrose's legacy to the resource-based view", *Managerial and Decision Economics*, Vol. 26, No. 2, pp. 83-98

Lockett, A., & Moon, J., & Visser, W., (2006), “Corporate social responsibility in management research: Focus, nature, salience and sources of influence”, *Journal of Management Studies*, Vol. 43, No. 1, pp. 115-136

López, S., (2005), “Competitive advantage and strategy formulation”, *Management Decision*, Vol. 43, No. 5, pp. 661-669

Lu, L., & Wu, L, & Kuo, T-C., (2007), ”Environmental principles applicapble to green supplier evaluation by using multi-objective decision analysis”, *International Journal of Production Research*, Vol. 45, No. 18-19, pp. 4317-4331

Lukka, K., (1986), Taloustieteen metodologiset suuntaukset: Liiketaloustieteen ja kansantaloustieteen vertailu, *Liiketaloudellinen aikakauskirja*, Vol. 35, No. 2, pp. 133-148, [in Finnish]

Lukka, K., (1991), Laskentatoimen tutkimuksen epistemologiset perusteet, *Liiketaloudellinen aikakauskirja*, Vol. 40, No. 2, pp. 161-184, [in Finnish]

Lukka, K., & Kasanen, E., (1993), Yleistettävyyden ongelma liiketaloustieteessä, *Liiketaloudellinen aikakauskirja*, 4/1993, p. 348-381, [in Finnish]

Luo, Y., (2000), “Dynamic capabilities in international expansion”, *Journal of Business World*, Vol. 35, No. 4, pp. 355-378

Lysons, K., & Farrington, B., (2006), Purchasing and Supply Chain Management, 7th Edition, Prentice Hall, Harlow, UK

Macbeth, D., (1994), “The role of purchasing in a partnering relationship”, *European Journal of Purchasing and Supply Management*, Vol. 1, No. 1, pp. 19-25

Mahoney, J., (1995), “The management of resources and the resource of management”, *Journal of Business Research,* Vol. 33, No., 2, pp. 91-101

Mahoney, J., & Pandian, J.R., (1992), "The resource-based view within the conversation of strategic management", *Strategic Management Journal*, Vol. 13, pp. 363-80

Makadok, R., (2001), "Towards a synthesis of the resource-based and dynamic capability views of rent creation", *Strategic Management Journal*, Vol. 22, No. 5, pp. 387-401

Makadok, R., & Barney, J., (2001), "Strategic factor market intelligence: An application of information economics to strategy formulation and competitor intelligence", *Management Science*, Vol. 47, No. 12, pp. 1621-1638

Makhija, R., (2006), "Spend analysis: Today's tools for tomorrow's savings", *Government Procurement*, Vol. 14, No. 2, pp. 12-17

Marshall, C., & Rossman, G.B., (1995), Designing qualitative research, 2nd Edition, SAGE, London, UK

McCall, G.J., & Simmons, J.L., (eds)., (1969), Issues in Participant Observation: A Text and Reader, Addison-Wesley, Reading, USA

McCutcheon, D., & Meredith, J., (1993), "Conducting case study research in operations management", *Journal of Operations Management*, Vol. 11, No. 3, pp. 239-256

McCutcheon, D., & Stuart, I., (2000), "Issues in the choice of supplier alliance partners", *Journal of Operations Management*, Vol. 18, No. 3, pp. 279-301

McKinnon, J., (1988), "Reliability and validity in field research: Some strategies and tactics", *Accounting, Auditing and Accountability*, Vol. 1, no. 1, pp. 34-54

Meade, L., & Liles, D., & Sarkis, J., (1997), "Justifying strategic alliances and partnering: A prerequisite for virtual enterprising", *Omega, International Journal of Management Science*, Vol. 25, No. 1, pp. 29-43

Mentzer, J., & DeWitt, W., & Keebler, J., & Min, S., & Nix, N., & Smith, C., & Zacharia, Z., (2001), "Defining supply chain management", *Journal of Business Logistics*, Vol. 22, No. 2, pp. 1-25

Metsämuuronen, J., (2001), Metodologian perusteet ihmistieteissä, Metodologia –sarja 1, 2. painos, Viro, [in Finnish]

Metsämuuronen, J., (2006), Laadullisen tutkimuksen käsikirja, International Methelp, Gummerus, Jyväskylä, Finland, [in Finnish]

Miles, M.B, (1976), Qualitative Analysis: Some Possible Rules of Thumb, Project on Social Architecture in Education (memorandum), New York: Center for Policy Research

Miles. M.B, (1979), "Qualitative data as an attractive nuisance: The problem of analysis", *Administrative Science Quarterly*, Vol. 24, No. 4, pp. 590-601

Miller, D., & Shamsie, J., (1996), "The resource-based view of the firm in two environments: The Hollywood Film Studios from 1936 to 1965", *Academy of Management Journal*, Vol. 39, pp. 519-543

Mintzberg, H., & Lampel, J., (1999), "Reflecting on the strategy process", *Sloan Management Review*, Vol. 40, No. 3, pp. 21-30

Mohr, J., & Spekman, R., (1994) "Characteristics of partnership success: Partnership attributes, communication behaviour, and conflict resolution techniques", *Strategic Management Journal*", Vol. 15, pp. 135-152

Monczka, R., & Trecha, S., (1988), "Cost-based supplier performance evaluation", *Journal of Purchasing and Materials Management*, Spring 1988, pp. 2-7

Monczka, R., & Trent, R., & Handfield, R., (2005), Purchasing and Supply Chain Management, 3rd Edition, Thomson, South-Western, Ohio, USA

Morgan, R., (2000), "Relationship Marketing and Marketing Strategy: The Evolution of Relationship Strategy Within the Organization", in Parvatiyar, S., (ed.). Handbook of Relationship Marketing, SAGE, Thousand Oaks, CA, USA, pp. 481-504

Mowery, D., & Teece, D., (1993), Strategic Alliances and Industrial Research, CCC Working Paper no. 93-6, Haas School of Business, University of California, Berkeley, USA, pp.1-27

Mäkelä, K., (1990), "Kvalitatiivisen analyysin arviointiperusteet", in Mäkelä, K., (ed.) Kvalitatiivisen aineiston analyysi ja tulkinta, Gaudeamus, Finland, pp. 42-61, [in Finnish]

Narasimhan, R., & Das, A., (2001), "The impact of purchasing integration and practices on manufacturing performance", *Journal of Operations Management*, Vol. 19, No. 5, pp. 593-609

Narasimhan, R., & Jayaram, J., & Carter, J., (2001), "An empirical examination of the underlying dimensions of purchasing competence", *Production and Operations Management*, Spring 2001, Vol. 10, No. 1, pp. 1-15

Neilimo, K., & Näsi, J., (1980), Nomoteettinen tutkimusote ja suomalainen yrityksen taloustiede. Tutkimus positivismin soveltamisesta, yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja, Sarja A 2: Tutkielmia ja raportteja 12, Tampere, Finland, [in Finnish]

Nelson, R., (1991), "Why do firms differ, and how does it matter?", *Strategic Management Journal*, Vol. 12, Winter special, pp. 61-74

Nelson, R., & Winter, S., (1982), An Evolutionary Theory of Economic Change, Harvard University Press, Cambridge, MA, USA

Nonaka, I., (1990), "A theory of Organizational Knowledge Creation", Tokyo, Japan

Nonaka, I., (1991), “The knowledge-creating company”, *Harvard Business Review*, November-December, pp. 96-104

Nonaka, I. (1994), “A dynamic theory of organizational knowledge creation”, *Organization Science*, Vol. 5, No. 1, pp. 14-37

Nonaka, I., & Takeuchi, H., (1995), The Knowledge-creating Company, Oxford University Press, New York, USA

Nonaka, I., & Teece, D.J., (2001), “Introduction” in Nonaka, I., & Teece, D.J., (eds), Managing Industrial Knowledge –Creation, Transfer and Utilisation, SAGE, London, UK, Thousand Oaks, USA, New Delhi, India

Nonaka, I., & Toyama, R., & Konno, N., (2001), “SECI, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation” Knowledge in I. Nonaka & D.J. Teece (eds), Managing Industrial Knowledge –Creation, Transfer and Utilisation, SAGE, London, UK, Thousand Oaks, USA, New Delhi, India

Näsi, J., (1983), Tieteelliset tutkimusotteet ja suomalainen liiketaloustiede, hallinto. Viitekehyksen konstruointi ja historiallis-paradigmaattinen analyysi. Tampereen yliopisto, Yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja, A-2: Tutkielmia ja raportteja 24: 1983, Finland, [in Finnish]

Näsi, J., & Saarikorpi, J., (1983), Tieteelliset tutkimusotteet ja suomalainen liiketaloustiede, markkinointi. Historiallis-paradigmaattinen katsaus ja analyysi. Tampereen yliopisto, Yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja, A-2: Tutkielmia ja raportteja 30: 1983, Finland, [in Finnish]

Olkkonen, T., (1993), Johdatus Teollisuustalouden Tutkimustyöhön, Helsinki University of Technology, Industrial Economics and Industrial Psychology, Report No. 152, Finland, [in Finnish]

Partington, D., (2002), “Grounded Theory”, in Parkington, D., (ed.), Essential Skills for Management Research, SAGE, London, UK, Thousand Oaks, USA, New Delhi, India

Paulraj, A., & Chen, I., & Flynn, J., (2006), “Levels of strategic purchasing: Impact on supply integration and performance”, *Journal of Purchasing & Supply Management*, Vol. 12, No. 3, pp. 107-122

Penrose, E.T., (1959), The Theory of The Growth of The Firm, Oxford University Press, Oxford, UK

Payne, A., (2006), Handbook of CRM – Achieving excellence in customer management, Butterworth-Heineman, Oxford, UK

Peteraf, M., (1993), “The cornerstones of competitive advantage: A Resource-Based View”, *Strategic Management Journal*, Vol. 14, pp. 179-91

Peteraf, M., & Bergen, M., (2003), “Scanning dynamic competitive landscapes: A market-based and resource-based framework”, *Strategic Management Journal*, Vol. 24, No. 10, pp. 1027-1041

Pfohl, H-C., & Buse, H.B., (2000), “Inter-organizational logistics systems in flexible production networks: An organizational capabilities perspective”, *International Journal of Physical Distribution & Logistics Management*, Vol. 30, No. 5, pp. 388-408

Pitelis, C., (2005), “Edith Penrose, organisational economics and business strategy: An assessment and extension”, *Managerial and Decision Economics,* Vol. 26, No. 2, pp. 67-82

Platts, K., & Probert, D.L., & Cáñes, L., (2002), “Make vs. buy decisions: A process incorporating multi-attribute decision-making”, *International Journal of Production Economics*, Vol. 77, No. 3, pp. 247-257

Porter, M.E., (1985), Competitive Advantage: Creating and Sustaining Superior Performance, The Free Press, New York, USA

Powell, TC., (2001), "Competitive advantage: Logical and philosophical considerations", *Strategic Management Journal*, Vol. 22, No. 9, pp. 875-88

Prahalad, C. & Hamel, G., (1990), "The core competence of the corporation", *Harvard Business Review*, May-June, pp. 79-91

Priem, R.L., & Butler, J.E., (2001a), "Is the Resource-Based "View" a useful perspective for strategic management research?" *Academy of Management Review*, Vol. 26, No.1, pp. 22-40

Priem, R.L., & Butler, J.E., (2001b), "Tautology in the Resource-Based View and the implications of externally determined value: Further Comments", *Academy of Management Review*, Vol. 26, No.1, pp. 57-66

Puolamäki, E., (2000), Beyond Normative Empiricism. Working Paper, Turku School of Economics and Business Administration, [in Finnish]

Quinn, J.B., (1992), Intelligent Enterprise: A Knowledge and Service-based Paradigm for Industry, The Free Press, New York, USA

Ramsay, J., & Wilson, I., (1990), "Sourcing/contracting strategy selection", *International Journal of Operations & Production Management*, Vol. 10, No. 8, pp. 19-28

Reck, R., & Long, B., (1988), "Purchasing: A Competitive Weapon", *Journal of Purchasing and Materials Management*, Vol. 24, No. 3, pp. 3-6

Reese, A.K., (2005), "Supercharging spend analytics", *Supply & Demand Chain Executive*, Vol. 6, No. 3, pp. 30-34

Reinecke, N., & Spiller, P., & Ungerman, D., (2007), ”The talent factor in purchasing”, *The McKinsey Quarterly*, No. 1, pp. 6-9

Reiss, A., J., (1968), Stuff and nonsense about social surveys and observation, In Becker & Geer & Riesman & Weiss, (Eds.), Institutions and the Person, Aldine, Chicago, USA

Reuer, J., & Zollo, M., & Singh, H., (2002), “Post-Formation dynamics in strategic alliances”, *Strategic Management Journal*, Vol. 23, No. 2, pp. 135-151

Richardson, G.B., (1972), “The Organization of Industry”, *Economic Journal*, Vol. 72, pp. 883-96

Richardson, L., (1994), “Writing: A Method of Inquiry”, in Denzin, N.K. & Lincoln, Y.S. (Eds), Handbook of Qualitative Research, Thousand Oaks, SAGE, USA

Robson, C., (1995), Real world research. A resource for social scientists and practioner-researchers, 5th print, Blackwell, Oxford, UK

Rouse, M., & Daellenbach, U., (2002), “More thinking on research methods for the Resource-Based Perspective; Research notes and commentaries”, *Strategic Management Journal*, Vol. 23, pp. 963-67

Rozemeijer, F., & van Weele, A., & Weggeman, M., (2003), “Creating corporate advantage through purchasing: towards a contingency model”, *The Journal of Supply Chain Management*, Vol. 39, No. 1, pp. 4-13

Rubin, P., (1973), “The expansion of firms”, *Journal of Political Economy*, Vol. 81, pp. 936-49

Rumelt, R., (1987), “Theory, Strategy and Entrepreneurship”, in Teece D. (ed), The Competitive Challenge, Ballinger, Cambridge, USA

Sadgrove, K., (1996), The Complete Guide to Business Risk Management, Gower, Hampshire, England, UK

Salmi, T., & Järvenpää, M., (2000), Laskentatoimen case-tutkimus ja nomoteettinen tutkimusajattelu sulassa sovussa. *Liiketaloudellinen aikakauskirja*, 2/2000, pp. 263-275, [in Finnish]

Schulze, W., (1994), "The two schools of thought in Resource-Based Theory", *Advances in Strategic Management*, Vol. 10, pp. 127-52

Selznick, P., (1957), Leadership in Administration, Harper and Row, Berkeley, CA, USA

Sheehan, N., & Foss, N., (2007), "Enhancing the prescriptiveness of the resource-based view through Porterian activity analysis", *Management Decision***,** Vol. 45, No. 3, pp. 450-461

Sher, P., & Lee, V., (2004), "Information technology as a facilitator for enhancing dynamic capabilities through knowledge management", *Information & Management*, Vol. 41, No. 8, pp. 933-945

Sherwood, F., & Schlosser, M., (1993), "ABB and Ford: Creating value through cooperation", *Sloan Management Review,* Vol. 35, No. 1, pp. 65-72

Sieber, S.D., (1973), "The integration of fieldwork and survey methods", *American Journal of Sociology*, Vol. 78, pp. 1335-59

Silverman, D., (1988), "Laadullisen tutkimuksen kuusi sääntöä – postromanttinen näkökulma", Käännös Päivi Heininen, Sosiologia 25, No. 4, pp. 257-268, [in Finnish]

Silverman, D., (1994), Interpreting qualitative data: Methods for analyzing talk, text and interaction, SAGE, London, UK

Silverman, D., (2001), Interpreting qualitative data: Methods for analyzing talk, text and interaction, 2nd Edition, SAGE, London, UK

Singh, K., & Mitchell, W., (1996), "Precarious collaboration: Business survival after partners shut down or form new partnerships", *Strategic Management Journal*, Vol. 17, Summer Special Issue, pp. 99-115

Sirmon, D., & Hitt, M., & Ireland, D., (2007), "Managing firm resources in dynamic environments to create value: Looking inside the black box", *Academy of Management Review,* Vol. 32, No. 1, pp. 273–292

Smeltzer, L., (1997), "The meaning an origin of trust in buyer-seller relationships", *International Journal of Purchasing and Materials Management*, Vol. 33, No. 1, pp. 40-48

Spekman, R., (1981), "Strategic approach to procurement planning", *Journal of Purchasing & Materials Management*, Vol. 17, No. 4, pp. 3-9

Spekman, R., (1988), "Strategic supplier selection: Understanding long-term buyer relationships", *Business Horizons*, Vol. 31, No. 4, pp. 75-81

Speakman, R., & Isabella, L., & MacAvoy, T., (2000), Alliance Competence, Maximizing The Value of Your Partnerships, John Wiley & Sons, New York, USA

Stake, R.E., (1995), The Art of Case Study Research, SAGE, USA

Stake, R.E., (2003), "Case Studies", in Denzin, N.K., Lincoln, Y.S., (eds.), Strategies of Qualitative Inquiry, 2.nd Edition, SAGE, USA

Ståhle, P., & Grönroos, M., (1999), Knowledge Management – Tietopääoma yrityksen kilpailutekijänä, WSOY, Porvoo, Finland [in Finnish]

Ståhle, P., & Grönroos, M., (2000), Dynamic Intellectual Capital – Knowledge Management in Theory and Practice, WSOY, Helsinki, Finland

Ståhle, P., & Kyläheiko, K., & Sandström, J., & Virkkunen, V., (2002), Epävarmuus hallintaan - Yrityksen uudistumiskyky ja vaihtoehdot, Gummerus Kirjapaino Oy, Jyväskylä, Finland, [in Finnish]

Ståhle, P., & Laento, K., (2000), Strateginen kumppanuus – avain uudistumiskykyyn ja ylivoimaan, WSOY, Helsinki/Porvoo, Finland, [in Finnish]

Stuart, F.I., (1997), ”Supply-Chain strategy: Organizational influence through supplier alliances”, *British Journal of Management*, Vol. 8, No. 3, pp. 223-236

Sveiby, K., (1997), The New Organizational Wealth, Berret-Koehler, San Fransisco, USA

Sulkunen, P., (1990), ”Ryhmähaastattelun analyysi” in Mäkelä, K., (ed.), teoksessa Kvalitatiivisen aineiston analyysi ja tulkinta, Gaudeamus, Helsinki, Finland, [in Finnish]

Sulkunen, P., & Kekäläinen, O., (1992), Wpindex-laadullisen aineiston analyysiohjelma, Gaudeamus, Helsinki, Finland, [in Finnish]

Sullivan, P., (1998), “Profiting From Intellectual Capital”, in Sullivan, P., (ed.), Profiting From Intellectual Capital: Extracting Value from Innovations, Wiley, New York, USA

Sullivan, P., (2000), Value-Driven Intellectual Capital- how to convert intangible corporate assets into market value, John Wiley & Sons, Inc., New York, USA

Syrjälä, L., (1994), Laadullisen tutkimuksen työtapoja, Helsinki: Kirjayhtymä, Rauma: West Point, Finland, [in Finnish]

Syrjälä, L., & Ahonen, S., & Syrjäläinen, E., & Saari, S., (1996), Laadullisen tutkimuksen työtapoja, Kirjayhtymä, Helsinki, Finland, [in Finnish]

Tayles, M., & Drury, C., (2001), “Moving from make/buy to strategic sourcing: the outsource decision process”, *Long Range Planning*, Vol. 34, No. 5, pp. 605-622

Teece, D., (1980), “Economies of scope and the scope of the firm”, *Journal of Economic Behavior and Organization*, Vol. 1, pp. 233-47

Teece, D., (1986), “Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy”, *Research Policy*, vol. 15, pp. 285-305

Teece, D.J., (1993), “Technology Transfer by Multinational Firms: The Resource Cost of Transferring Technological Know-How” in Mansfield E., (ed.), The Economics of Technical Change, Edward Elgar Publisihing, London, UK

Teece, D.J., (1998), “Capturing value from knowledge assets: The new economy, markets for know-how, and intangible assets”, *California Management Review*, Vol. 40, No. 3, pp. 55-79

Teece, D.J., (2000), Managing Intellectual Capital: Organizational, Strategic and Policy Dimensions, UK: Oxford University Press

Teece, D.J., (2001), “Strategies for Managing Knowledge Assets: The Role of Firm Structure and Industrial Context” in Nonaka, I., & Teece, D.J., (eds), Managing Industrial Knowledge – Creation, Transfer and Utilisation, SAGE, London, UK, Thousand Oaks, USA, New Delhi, India

Teece, D., & Pisano, G., (1994), “The dynamic capabilities of firms: An introduction”, *Industrial and Corporate Change*, Vol. 3, pp. 537-556

Teece, D., & Pisano, G., (1998), “The Dynamic Capabilities of Firms: An Introduction”, in Dosi, G., & Teece, D., & Chytry, J., (eds.), Technology, Organization and Competitiveness, Perspectives on Industrial and Corporate Change, Oxford University Press, New York, USA

Teece, D., & Pisano, G., & Shuen, A., (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, Vol. 18, No. 7, pp. 509-533

Tesch, R., (1991), "Software for qualitative researchers: Analysis needs and program capabilities", in Fielding, N.G., & Lee R.M., (eds.), Using computers in qualitative research, SAGE, London, UK

Thompson, S., & Wright, M., (2005), "Edith Penrose's contribution to economics and strategy: An overview", *Managerial and Decision Economics*, Vol. 26, No. 2, pp. 57-66

Timmerman, E., (1986), "An approach to vendor performance evaluation", *Journal of Purchasing and Materials Management*, Vol. 22, No. 4, Winter, 1986, pp. 2-8

Towill, D., & Naim, M., (1993), "Partnership sourcing smooths supply chain dynamics", *Purchasing & Supply Management*, July93, pp. 38-42

van Weele, A., (2005), Purchasing & Supply Chain Management: Analysis, Strategy, Planning & Practice, 4th Edition, Thomson, UK

Varto, J., (1992), Laadullisen tutkimuksen metodologia, Kirjayhtymä, Helsinki, Finland, [in Finnish]

Vidich, A., & Shapiro, G., (1955), "A comparison of participant observation and survey data", *American Sociological Review*, Vol. 20, pp. 28-33

Virolainen, V-M., (1998), Motives, Circumstances and Success Factors in Partnership Sourcing, (Ph.D. Thesis), Research Papers 71, Lappeenranta University of Technology, Lappeenranta, Finland

Virolainen, V-M., & Peltola, S., & Vesterinen, T., & Lintukangas, K., & Niemi, P., & Kivistö, & K., & Hämäläinen, T., & Puumalainen, K., (2006), Hankintatoimen nykytila ja

tulevaisuuden haasteet, Lappeenrannan teknillinen yliopisto, Digipaino, Lappeenranta, Finland

Webb, E.J., & Campbell, D.T., & Schwartz, R.D. & Sechrest, L., (1966), Unobtrusive measures, Nonreactive research in the social sciences, Rand McNally. Chigago, USA

Wernerfelt, B., (1984), "A Resource-Based View of the firm", *Strategic Management Journal*, Vol. 5, pp. 171-80

Whipple, J., & Frankel, R., (1998), "The alliance formation process", *International Food and Agribusiness Management Review*, Vol. 1, No. 3, pp. 335-357

Whipple, J., & Frankel, R., (2000), "Strategic alliance success factors", *The Journal of Supply Chain Management*, Summer, pp. 21-28

Williamson, O.E., (1975), Markets and Hierarchies, Free Press, New York, USA

Williamson, O.E., (1985), Economic Institutions of Capitalism, Free Press, New York, USA

Williamson, O.E., (1991), "Comparative economic organization: The analysis of discrete structural alternatives", *Administrative Science Quarterly*, Vol. 36, pp. 269-296

Winter, S., (1987), "Knowledge and Competence as strategic assets" in Teece, D.J. (ed), The Competitive Challenge: Strategies for Industrial Innovation and Renewal, Ballinger, Cambridge, USA

Wilkens, U., & Menzel, D., & Pawlowsky, P., (2004), "Inside the black-box: Analysing the generation of core competencies and dynamic capabilities by exploring collective minds, An organizational learning perspective", *Management Revue*, Vol. 15, No. 1, pp. 8-26

von Krogh, G., & Nonaka, I., & Aben, M., (2001), "Making the most of your company's knowledge: A strategic framework", *Long Range Planning*, Vol. 34, pp. 421-439

Wu, L-Y., (2006), "Resources, dynamic capabilities and performance in a dynamic environment: Perceptions in Taiwanese IT enterprises", *Information & Management*, Vol. 43, No. 4, pp. 447-454

Wu, L-Y., & Wang, C-J., (2007), "Transforming resources to improve performance of technology-based firms: A Taiwanese empirical study", *Journal of Engineering and Technology Management*, Vol. 24, No. 3, pp. 251-261

Yin, R.K., (1984), Case Study Research: Design and Methods, 2nd Edition, SAGE, Beverly Hills, CA, USA

Yin, R.K., (1994), Case Study Research: Design and Methods, SAGE, Thousand Oaks, CA, USA

Zaheer, A., & McEvily, B., & Perrone, V., (1998), "The Strategic Value of Buyer-Supplier Relationships", *International Journal of Purchasing & Materials Management*, Vol. 34, No. 3, pp. 20-26

Zander, U., & Kogut, B., (1995), "Knowledge and the speed of transfer and Imitation of Organizational Capabilities: An Empirical Test", *Organizational Science*, Vol. 6, No. 2, pp. 76-92

Zollo, M., & Winter, S., (2002), "Deliberate learning and the evolution of dynamic capabilities", *Organizational Science*, Vol. 13, No. 3, pp. 339-351

Zsidisin, G., & Ellram, L., (2001), "Activities related to Purchasing and Supply Management involvement in supplier alliances", *International Journal of Physical Distribution & Logistics*, Vol. 31, No. 9, pp. 617-634

Zsidisin, G., & Ellram, L., & Odgen, J., (2003), "The relationship between Purchasing and Supply Management's perceived value and participation in strategic supplier cost management activities", *Journal of Business Logistics*, Vol. 24, No. 2, pp. 129-154

Internet- publications:

EDUSKUNTA, (2007), Täysistunnon pöytäkirja PTK 62/2007 vp, [Internet publication, in Finnish], [Accessed 28 November 2007], available at: http://www.eduskunta.fi/faktatmp/utatmp/akxtmp/ptk_62_2007_ke_p_3.shtml

EGLO, (2007), EGLO – Enhancing Global Logistics, [Internet publication], [Accessed 18 December 2007], available at: http://www.eglo.info/?1;2;300;300

ETL, (2007), Elintarviketeollisuus Suomessa, [Internet publication, in Finnish], [Accessed 28 November 2007], http://www.etl.fi/

IMD, 2007, WCY/World Competitiveness, Overall Scoreboard 2007, [Internet publication], [Accessed 30 November 2007], available at: http://www.imd.ch/research/publications/wcy/announcing.cfm

Inex, 2007, Omat merkit, [Internet publication, in Finnish], [Accessed 27 November 2007], available at: http://www.inex.fi/omatmerkit/

Kesko, 2007, Esittely, [Internet publication, in Finnish], [Accessed 27 November 2007], available at: http://www.k-supermarket.fi/esittelyfr.cfm

Lukka, K., (2001), Konstruktiivinen tutkimusote, [Internet publication, in Finnish], [Accessed 9 February 2004], available at: www.metodix.com

Lidl, 2007, Yrityksemme perusarvot, [Internet publication, in Finnish], [Accessed 27 November 2007], available at: http://www.lidl.fi/fi/home.nsf/pages/c.service.au.philosophy.index

Netman, (2002), Verkostojen ajantasainen logistiikka, VALO-ohjelma/Netman projetki, [Internet publication, in Finnish], [Accessed 15 February 2008], available at: http://www.valo-ohjelma.fi/homepr.html,

Spiller, P., & Reinecke, N., (2007), People really do matter most, [Internet publication], [Accessed 13 March 2008), available at: http://www.procurementleaders.com/learninggroups/leadership/leadership-articles/people-do-matter-most-really/

Tradeka, 2007, Ketjut, [Internet publication, in Finnish], [Accessed 27 November 2007], available at: http://www.tradeka.fi/tradeka/ipub.nsf/sivut/etusivupohja? OpenDocument &cid= etusivu

WEF, 2007, Global Competitiveness Report, [Internet publication], [Accessed 30 November 2007], available at: http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm

Other publications:

Organization specific material:
Organization chart
Business plan
Processes charts
other internal documents related to the PSM data (e.g. financial numbers, ratios, customer and supplier data)

APPENDIX 1. PRE-QUESTIONNAIRE

PSM RESEARCH PROJECT : Please answer the following questions.

JOB DESCRIPTION & TASKS

1. What is your job title?

2. How do you think the title describes/fits your tasks?

3. What kinds of tasks are you performing?

4. Is purchasing/sourcing your main task?

5. What about the development, do you have tasks and duties related to the development processes? If yes, please describe what kinds of tasks you may develop and participate in.

6. How and for how long a period do you plan your work and tasks?

7. Can you tell, if your work and tasks have changed during the past years? If they have, please describe in what way. What about the future, how would you estimate the forthcoming changes in your work?

8. Who are your closest colleagues and what are their tasks? For whom are you performing your daily tasks? If it feels more convenient, it is possible just to name the titles without actual names.

9. What kind of an incentive system there is in your organization?

10. In what ways is employee motivation increased in your organization?

APPENDIX 2. INTERVIEW STRUCTURE 1/2

Background information (in the beginning of the interview):

0. Please describe your own business process and your own role within the process (rf. your own business environment).

PART I: MANAGEMENT OF PURCHASING PROCESS

1. Does the organization have policies or procedures (purchasing related)? Are there any situations not to follow the guidelines and depart from this normal procedure? If yes, please identify such situations.
2. Describe how the supplier selection process is conducted in your organization.
3. Describe what kinds of methods, tools and measures related to supplier evaluation, measurement and selection (such as supplier selection criteria, supplier performance and supplier rating) are used in your organization.
4. Describe from your own viewpoint how the purchasing related ordering and delivery processes are performed.
5. Could you tell about the methods used in the organization that are related to these order and delivery processes?
6. Could you describe how to evaluate the quality and service related to purchasing within the organization?
7. Please define the persons (of which functions) that participate in the planning process of IT systems or are the actual designers of these systems.
8. Could you describe in what way purchasing participates in such IT systems?

PART II: ECONOMIC ROLE OF PSM 2/2

9. Please identify the possible guidelines to the economic and financial control and management that relate to purchasing and supply chain management.
10. Please describe how purchasing may impact the business profitability of the organization.
11. Define the methods used within the organization related to cost management (e.g. price and cost analysis, target costing, TCO and activity based costing).
12. Define the methods, measures and tools to be used in the measurement of operative and economic (incl. financial) efficiency in the context of PSM (e.g. inventory levels, lead times and current ratios).

PART III: STRATEGIC VIEW

13. Is there a general policy that guides all the activities in the organization?
14. Please describe your own corporate strategy and what kinds of elements are included in it.
15. Please define what is your opinion about what the value network is and what the organization's as well as your own role is in the network (i.e. what are the players of the network).
16. Please describe the organization's strategy process.
17. Could you tell in which way you participate in the formulation of the purchasing strategy? How would other persons participate in the formulation process?
18. Could you identify what kinds of tools are used in the planning of corporate strategy?
19. Please describe what kinds of issues does the purchasing strategy include? How you would consider the purchasing strategy in your own work.
20. Please describe how to find new supply sources and follow up the supply markets and the changes occurred.
21. Describe the supplier relationships to which this organization is related.
22. Describe what your own view to the partnership is. What about the organization's view on this subject?

APPENDIX 3. AGENDA FOR INTERVIEWS

CASE ORGANIZATION 1

Place Vantaa, Finland

Interview candidate	1.3.2006	2.3.2006	Interviewers
CEO/Managing Director	10:00-12:00		Lintukangas & Peltola & Vesterinen
Business Manager	12:30-14:30		Lintukangas & Peltola & Vesterinen
Product Group Manager		9:30-11:30	Lintukangas & Vesterinen
Product Group Manager		12:00-14:00	Lintukangas & Vesterinen
Chain Service Manager		14:00-16:00	Lintukangas & Vesterinen

CASE ORGANIZATION 2

Place Helsinki, Finland

Interview candidate	4.11.2005	7.11.2005	9.11.2005	10.11.2005	11.11.2005	28.11.2005	Interviewers
CEO/Managing Director					09:00-11:30		Lintukangas & Vesterinen
Nutrition Designer			12:00-14:30				Lintukangas & Kivistö
Selection Manager				08:30-11:00			Lintukangas & Vesterinen
Purchasing Manager		12:30-15:00					Kivistö & Vesterinen
R&D Manager			14:30-17:00				Lintukangas & Kivistö
Development Director					12:00-14:30		Lintukangas &Vesterinen
Project Manager				11:30-14:00			Lintukangas & Vesterinen
Sourcing Director						13:30-16:00	Kivistö & Vesterinen
Project Manager	09:00-11:30						Lintukangas & Kivistö
Purchasing Manager				14:00-16:30			Lintukangas & Vesterinen

Further, some interviews were conducted in other time and places

Place Helsinki, Finland	26.9.2005	Interviewers
Category Manager	12:00-15:00	Kivistö & Lintukangas & Peltola & Vesterinen & Virolainen
Place Helsinki, Finland	23.1.2006	
Area Manager	10:00-12:00	Kivistö & Vesterinen
Place Lappeenranta, Finland	25.1.2006	
Restaurant Manager	13:00-15:00	Lintukangas & Vesterinen

APPENDIX 4. CODING THE INTERRVIEWEES

PROFESSIONAL BUYERS

Business Manager, DIRECTOR, PSM 1
Sourcing Director, DIRECTOR, PSM 2

Product Group Manager, MANAGER-PSM 1
Product Group Manager, MANAGER-PSM 1
Sourcing Manager, MANAGER-PSM 2
Sourcing Manager, MANAGER-PSM 2
Project Manager (purchasing), MANAGER-PSM 2
Category Manager, MANAGER-PSM 2

NON-PROFESSIONAL BUYERS

CEO/Managing Director, DIRECTOR N-P 1
CEO/Managing Director, DIRECTOR N-P 2
Development Director, DIRECTOR N-P 2

Chain Service Manager, MANAGER P-SS 1
R&D Manager, MANAGER P-SS 2
Nutrition Designer, MANAGER P-SS 2
Selection Designer, MANAGER P-SS 2
Area Manager, MANAGER P-SS 2

Restaurant Manager, BUYER RECALL 2

Project Manager, BUYER N-P 2

APPENDIX 5. PERFORMANCE MEASUREMENT CRITERIA FOR SUPPLIER RELATIONSHIPS 1/2

PERFORMANCE MEASUREMENT CRITERIA FOR SUPPLIERS	Authors A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Supplier characteristics															
Size			X						X	X		X			
Name/Brand/Status in the market/references /distance			X	X	X		X	X	X	X					
Length of relationship				X	X	X		X				X	X		
Supplier becoming competitor								X							
Number of strategic alliances/supplier collaboration					X	X		X							
Input criticality/strategic focus of products/services/supplier					X			X		X		X			
Supplier's share from all contracts/volumes				X						X					
Supplier's past experience of such relationship/performance										X		X			
Ethical standards										X					
Supplier's resources generally; employee, know-how, skills, capacity					X					X					
Facilities: machinery, infrastructure, capacity utilization etc.					X						X				
Switching costs & flexibility															X
Dependence															X
Financial and economic factors															X
Supplier's financial stability & financial resources	X							X		X	X			X	
Supplier's experience of market, products etc.	X														
Barriers to the supplier's entry and exit of markets	X														
Annual sales & sales growth				X					X						
Performance factors		X			X									X	
Delivery: sizes, reliability, quality, terms of delivery, payment	X		X							X	X				
Quality	X			X		X				X	X			X	X
Price	X			X						X	X				X
Other logistical issues, warehousing, response time, lead time etc.			X					X			X				X
Total costs				X		X								X	X
Continuous performance improvement efforts												X			
Technological factors															
Ability to cope with and react to changes in technology, design..	X				X		X	X			X				X
Types and depth of supplier's current & future technological	X				X			X	X		X		X	X	
capabilities (ability to manage R&D capabilities) & joint planning		X			X										
Technology life cycles							X								
Supplier's design capabilities & speed in development	X		X			X		X						X	
Supplier's patent & IPR's protection	X		X				X								
Supplier's manufacturing to specifications/capabilities			X					X						X	
Supplier's service ability and know-how			X			X	X				X				
Techical capabilities (ability to control & exchange techical issues)						X		X			X	X		X	
Process integration/commitment to continuous					X	X		X			X		X		
improvement/development/phase of the innovation process *							X						X		
Technology transfer and supplier's technological influences					X							X			

Organizational, cultural and strategic factors														
Influence on the company's network position	X													
Internal and external integration of the partner / mutual goals	X					X	X					X		
Strategic fit & joint decision-making	X				X	X	X	X				X		
Management attitude & outlook & visions for the future	X				X	X						X		
Top management capability/management capability	X				X	X		X				X	X	
Compatibility across organization levels and functions between	X					X						X		
partners														
General risk and uncertainty dealing, mutual problems	X			X	X		X							
Feeling of trust in relationship/closeness/satisfaction	X			X	X			X				X		X
Information exchange				X	X			X				X		X
Openness, frequency and channels of communication		X	X	X	X			X				X		
Use of electronic data transfers		X	X			X								
Visits between partners & frequent meetings & training		X	X	X		X						X		
Culture compatibility								X				X		
Others														
Ability to cope with changes in the environment					X									
Mutual Sharing & investments					X		X	X					X	X

A Olsen & Ellram, 1997
B Paun, 1997
C Kozak & Cohen, 1997
D Dyer et al., 1998
E Krause, 1999
F Forker & Stannack, 2000
G Chiesa et al., 2000
H McCutcheon & Stuart, 2000
I Lee et al., 2001
J Kannan & Tan, 2002
K Muralidharan et al., 2002
L O'Toole & Donaldson, 2002
M Kotabe et al., 2003
N McHugh et al., 2003
O Chan, 2003
* for summary of supplier involvement in previous research see e.g. Primo & Amundson (2002)

ACTA UNIVERSITATIS LAPPEENRANTAENSIS

264. VARTIAINEN, JARKKO. Measuring irregularities and surface defects from printed patterns. 2007. Diss.

265. VIRKKI-HATAKKA. TERHI. Novel tools for changing chemical engineering practice. 2007. Diss.

266. SEKKI, ANTTI. Successful new venturing process implemented by the founding entrepreneur: A case of Finnish sawmill industry. 2007. Diss.

267. TURKAMA, PETRA. Maximizing benefits in information technology outsourcing. 2007. Diss.

268. BUTYLINA, SVETLANA. Effect of physico-chemical conditions and operating parameters on flux and retention of different components in ultrafiltration and nanofiltration fractionation of sweet whey. 2007. Diss.

269. YOUSEFI, HASSAN. On modelling, system identification and control of servo-systems with a flexible load. 2007. Diss.

270. QU, HAIYAN. Towards desired crystalline product properties: In-situ monitoring of batch crystallization. 2007. Diss.

271. JUSSILA, IIRO. Omistajuus asiakasomisteisissa osuuskunnissa. 2007. Diss.

272. 5th Workshop on Applications of Wireless Communications. Edited by Jouni Ikonen, Matti Juutilainen and Jari Porras. 2007.

273. 11th NOLAMP Conference in Laser Processing of Materials Lappeenranta, August 20-22, 2007. Ed. by Veli Kujanpää and Antti Salminen. 2007.

274. 3rd JOIN Conference Lappeenranta, August 21-24, 2007. International Conference on Total Welding Management in Industrial Applications. Ed. by Jukka Martikainen. 2007.

275. SOUKKA, RISTO. Applying the principles of life cycle assessment and costing in process modeling to examine profit-making capability. 2007. Diss.

276. TAIPALE, OSSI. Observations on software testing practice. 2007. Diss.

277. SAKSA, JUHA-MATTI. Organisaatiokenttä vai paikallisyhteisö: OP-ryhmän strategiat institutionaalisten ja kilpailullisten paineiden ristitulessa. 2007. Diss.

278. NEDEOGLO, NATALIA. Investigation of interaction between native and impurity defects in ZnSe. 2007. Diss.

279. KÄRKKÄINEN, ANTTI. Dynamic simulations of rotors during drop on retainer bearings. 2007. Diss.

280. KARPOVA, TATJANA. Aqueous photocatalytic oxidation of steroid estrogens. 2007. Diss.

281. SHIPILOVA, OLGA. Particle transport method for convection-diffusion-reaction problems. 2007. Diss.

282. ILONEN, JARMO. Supervised local image feature detection. 2007. Diss.

283. BOTAR-JID, CLAUDIU CRISTIAN. Selective catalytic reduction of nitrogen oxides with ammonia in forced unsteady state reactors. Case based and mathematical model simulation reasoning. 2007. Diss.

284. KINNUNEN, JANNE. Direct-on-line axial flux permanent magnet synchronous generator static and dynamic performance. 2007. Diss.

285. VALTONEN, MIKKO. Performance characteristics of an axial-flux solid-rotor-core induction motor. 2007. Diss.

286. PUNNONEN, PEKKA. Impingement jet cooling of end windings in a high-speed electric machine. 2007. Diss.

287. KÄRRI, TIMO. Timing of capacity change: Models for capital intensive industry. 2007. Diss.

288. TUPPURA, ANNI. Market entry order and competitive advantage of the firm. 2007. Diss.

289. TARKIAINEN, ANSSI. Field sales management control: Towards a multi-level theory. 2007. Diss.

290. HUANG, JUN. Analysis of industrial granular flow applications by using advanced collision models. 2007. Diss.

291. SJÖMAN, ELINA. Purification and fractionation by nanofiltration in dairy and sugar and sweetener industry applications. 2007. Diss.

292. AHO, TUOMO. Electromagnetic design of a solid steel rotor motor for demanding operation environments. 2007. Diss.

293. PURHONEN, HEIKKI. Experimental thermal hydraulic studies on the enhancement of safety of LWRs. 2007. Diss.

294. KENGPOL, ATHAKORN. An evaluation of ICTs investment using decision support systems: Case applications from distributor´s and end user´s perspective group decision. 2007. Diss.

295. LASHKUL, ALEXANDER. Quantum transport phenomena and shallow impurity states in CdSb. 2007. Diss.

296. JASTRZĘBSKI, RAFAŁ PIOTR. Design and implementation of FPGA-based LQ control of active magnetic bearings. 2007. Diss.

297. GRÖNLUND, TANJA. Development of advanced silicon radiation detectors for harsh radiation environment. 2007. Diss.

298. RUOKONEN, MIKA. Market orientation in rapidly internationalizing small companies – evidence from the software industry. 2008. Diss.

299. OIKARINEN, TUIJA. Organisatorinen oppiminen – tapaustutkimus oppimisprosessien jännitteistä teollisuusyrityksessä. 2008. Diss.

300. KARHULA, JUKKA. Cardan gear mechanism versus slider-crank mechanism in pumps and engines. 2008. Diss.

301. RAJAMÄKI, PEKKA. Fusion weld metal solidification: Continuum from weld interface to centerline. 2008. Diss.

302. KACHINA, ANNA. Gas-phase photocatalytic oxidation of volatile organic compounds. 2008. Diss.

303. VIRTANEN, PERTTU. Evolution, practice and theory of European database IP law. 2008.

304. TANNINEN, KATI. Diffusion of administrative innovation: TQM implementation and effectiveness in a global organization. 2008. Diss.

305. PUISTO, ANTTI. The initial oxidation of transition metal surfaces. 2008. Diss.

306. FELLMAN, ANNA. The effects of some variables on CO_2 laser-MAG hybrid welding. 2008. Diss.