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High Performance. Delivered.

A study on what can be dynamic managerial capabilities.

Abstract

Dynamic capabilities are an important part of the resource-based view, which tries to explain how firms manipulate their resource bases to create competitive advantage. More recently, the concept of dynamic managerial capabilities has emerged to explain managers' part in this manipulation of the resource base. However, examples of what these capabilities can be in practice have been missing in strategic research. Our study is an attempt to give indications of what can be dynamic managerial capabilities in practice. Based on a literature review and a quantitative study, we find five different types of possible capabilities. We also make findings suggesting that the characteristics of dynamic managerial capabilities vary with industry velocity. We specify two main areas for further research within the subject.

Keywords: Resource-based View, RBV, Dynamic Capabilities, Dynamic Managerial Capabilities, Practical models, Industry Velocity, Competitive Advantage

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1. Introduction

In this section we introduce the reader to the topic of our research. We provide the reader with a short background on the motives for our research, purpose, delimitations and an outline for the remaining part of our thesis.

1.1 Background

During our studies at Stockholm School of Economics, it has been hard to miss the phenomenon of companies competing fiercely to recruit talented students. Regardless of the setting, be it at a company presentation, a career fair, a case competition or a dinner event, company representatives constantly try to convince the most talented students to join their teams. Companies' HR departments put more and more effort and money into hiring the most talented individuals. The economic rationale behind undertaking these efforts is simple. Employees are, as of today, the most important asset for firms in creating and sustaining competitive advantage.

Human Resource Management (HRM) is an important factor in companies' strategy making process. Despite this, the subject has hardly been touched upon during our bachelor studies at SSE. Although strategic HRM has emerged as a discipline to integrate HRM into strategic thinking, we feel that the connection between HRM and strategic analysis remains unclear.

During the last two decades, the resource-based view (RBV) has emerged as the dominant contemporary approach to strategy analysis.¹ This view takes an inside-out perspective, as Regnér (1999) puts it, in that it focuses on the internal resources of the firm to explain competitive advantage. The shift in strategic thinking, from focusing on external factors such as industry structure to putting more emphasis on internal resources, has highlighted the importance of HRM. Strategic HRM has been largely based on the RBV. The RBV provides HRM with a logic link to strategy, but the interdisciplinary research between HRM and strategic management has been scarce, and more integration of the research fields would benefit both research areas (Wright et. al, 2001)

With this study, we want to stress the importance of capable managers as part of firms' strategic resources. By using and extending theories from the resource-based view, we try to analyze what capabilities firm managers should possess to contribute to their firm's competitiveness. Further, we want to see if these capabilities differ depending on the velocity

¹ See for example Foss (1997)

of the firm's environment. We hope that our research will provide some answers to what capabilities firm should seek when recruiting managers. To briefly reconnect to the title of our thesis: we will study what capabilities managers need for high performance to be delivered.

1.2 Purpose

Our study aims to clarify the concept of dynamic capabilities (DC), and more specifically dynamic managerial capabilities (DMC). Although research has been performed on both areas, it has not been extensively tested empirically, especially not DMC. We want to contribute to this rather blank spot in research, in order to create a better understanding of what dynamic managerial capabilities within firms can be. In doing so, we also want to see if these DMC's differ depending on industry velocity. Our ambition is not to come up with a unique answer in the form of a mutually exclusive list of dynamic managerial capabilities, but rather to come up with indications of what DMC's can be, and create suggestions for how future research can contribute to the subject. Thus, our two research questions are as follows

Research question 1: What can be dynamic managerial capabilities?

Research question 2: Do the characteristics of dynamic managerial capabilities vary with industry velocity?

1.3 Delimitations

Concerning the theoretical frameworks, we have chosen to put our emphasis on dynamic managerial capabilities, and on trying to test these theories in practice. The concept of dynamic managerial capabilities is still under development, which means that there is no clearly defined framework yet. To solve the problem with absence of a distinct framework, we have used an analogy from dynamic capabilities to help defining possible dynamic managerial capabilities. Despite this, we believe that our research will provide valuable insights within the field of dynamic managerial capabilities.

In our empirical part, we have chosen to limit our scope to Swedish firms with a turnover of above MSEK 100. We have chosen Swedish firms out of practical reason such as access to contact information and language barriers. The limit of 100 MSEK is set to only ask companies that have a sufficient amount of leaders for our questions to be relevant. It is our belief that these delimitations are necessary to obtain generalizable results and obtain relevant and valid data.

1.4 Outline

Chapter 2 presents the methodology used in our thesis. Chapter 3 proceeds by introducing our theoretical framework. Here we start off with a broad approach by giving a overview of strategy research and then put our focus on the development of the theories that we base our thesis on. In chapter 4 we present our analysis by first looking on the design of hypotheses. This is followed by a quantitative study where we discuss the results and describe how the study was conducted. In the end we make a conclusion of the thesis and suggest areas for further research.

2. Research methodology

In this section we present and motivate the methodology used in our thesis. We put emphasis on the general methodology while the methodology that relates to our quantitative research will be presented in connection to the empirical findings in order to give the reader a better overview.

2.1 Research design

In science there are three approaches to relate theory and method: Inductive, abductive and deductive (Alvesson & Sköldberg 1994). The inductive approach starts with the observation of a certain phenomenon, followed by generation of hypotheses based on existing theoretical frameworks. The deductive approach is reversed, and starts with construction of hypotheses from existing theory that is then tested with a study. The abductive method combines the two methods. In our thesis, we take a deductive approach, as we start from the theory of dynamic capabilities and from there formulate hypotheses that are tested within our study.

When choosing what research methods to use in this study, we considered both a qualitative and quantitative approach. Qualitative research is most commonly used to understand a phenomenon, and a quantitative approach is more appropriate to test the generalizability of a certain phenomenon. As a consequence, there is a trade-off between in-depth understanding and generalizability of the research. When studying the research field, we noted that most of the research carried out relating to the concept of dynamic capabilities has taken a qualitative approach, focusing on only a few separate firms or industries. We have therefore chosen to perform a quantitative study in order to be able to draw more generalizable conclusions.

2.2 Research data

To find literature to base our research on, we have relied on the databases for scientific journals provided primarily through the SSE library. Jstor and Emerald have proven especially useful. To complement these sources and ensure that we did not miss any important research, we have used extensive search through Google. We have also received invaluable advice from our supervisor, Patrick Regnér, concerning the research area and literature on strategy. We believe this is a sufficient measure to cover the available research within the area.

In our quantitative study, we have chosen to use primary data collected through a survey. The reason that we have chosen to collect our own primary data rather than relying on existing secondary data is that the data needed to perform our analysis is not available, in part because

the concept of dynamic capabilities is not very developed. More details on data sample, validity and reliability will be provided within the test method part in connection to the data.

2.3 Alternative methodologies

Other possible ways to answer our research question would have been to take a more qualitative approach, by performing one or multiple firm case studies. This approach could have provided a better in-depth knowledge of the specific investigated firm's dynamic managerial capabilities. Another approach could have been to take a more exploratory approach in our survey, by designing open-ended questions where the respondents could write answers themselves. However, we believe that our quantitative approach is the most appropriate one, as it increases the generalizability of the theory, while still providing indications on what actually can be dynamic managerial capabilities.

3. Theoretical framework

In this section, we first introduce the reader to strategy theory on a general level, and then focus on the theory that is most important to our thesis. Criticism against these theories will also be presented to give a broader picture.

3.1 Introduction

The strategic management field is quite fragmented, according to Regnér (1999), and there is not much agreement regarding the definition of strategy and what strategy is about. However, strategy analysis seeks to answer two questions; *Where to go?* and *How do we get there?*²

The fundamental question in strategy analysis is how firms achieve and sustain competitive advantage (Teece, 1997). There are many different definitions of competitive advantage. Grant (2005) provides a basic definition:

"When two or more companies compete within the same market, one firm possesses a competitive advantage over its rivals when it earns a persistently higher rate of profit"

Strategy scholars have tried to explain differences in profitability and competitiveness across firms using different points of departure for their analysis. Two main paradigms have developed; the Industrial Organization paradigm (IO) and the Resource-Based View (RBV).

3.2 Operational validity

Strategic management research has two distinct characteristics that influence the discourse within the discipline. The first characteristic is that the theories and frameworks developed are often prescriptive, and thus they are designed to be easily applicable to business practice. The second characteristic is that research often focuses on firm level performance, and in what ways the firm-performance variable can be improved (Meyer, 1991). Thus, for a theory to have relevance within the field of strategy, it should be of use for practitioners e.g. corporate managers. Thomas and Tymon (1992) defined operational validity as

"the ability of the practitioner to implement the action implications of a theory by manipulating its causal (or independent) variables"

Hence, for research within strategic management to be relevant, there must be an applicability of the proposed theories in real business environments.

² This division of strategy analysis into two fields is more thoroughly explained by Regnér (1999)

3.3 Industrial Organization

The Industrial Organization paradigm (IO) focuses on answering the "Where to go?" question of strategy, as it seeks to explain competitive advantage from outside rather than from inside the firm. Industrial organization research has been very focused around industry structure and industry characteristics in explaining the competitive advantage of firms. The classic work by Bain & Mason (1960), which included the structure-conduct-performance framework, focused to a large extent on industry structure as a determinant of firm performance. The drawback of this theory was that it treated industry structure as exogenously given, and that very few factors were taken into consideration. Industrial Organization was therefore not widely adopted by practitioner's e.g. corporate managers, as it didn't offer any clear advice on *how to get there*.

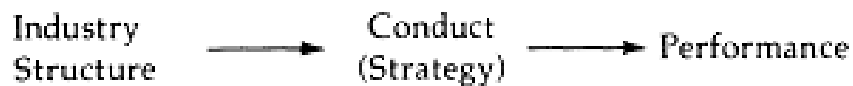


Figure 1. The Structure-conduct-performance model

3.3.1 Development of Industrial Organization

Early scholars of industrial organization were criticized for not being able to explain changes in industry structure and responses to these changes from a strategic standpoint. With the *Five forces framework* developed by Michael E Porter in *Competitive strategy* (1980), the IO research area was fundamentally renewed. With the *Five forces framework*, researchers and practitioners had a framework to understand industry attractiveness by studying competition, substitutes, bargaining power of buyers and suppliers and entry barriers within the industry. Unlike classic IO, the Five forces framework is more dynamic, as a firm's behavior can affect industry structure. The industry structure remains a key determinant of profitability, but firms can shape the industry structure, for example by raising the barriers to entry or reducing the intra industry competition. The Five forces framework has been widely adopted by business practitioners as a way to understand industry structure and what strategy a firm should pursue to strengthen its position on the market and thereby increase profitability.

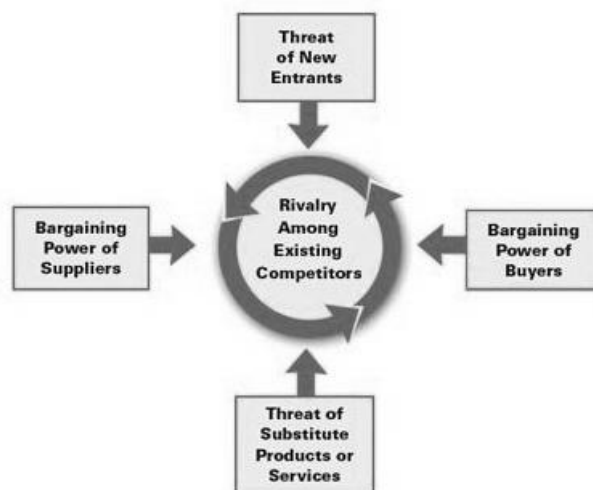


Figure 2. Porters Five Forces framework.

3.3.2 Criticism against the Industrial Organization paradigm

The IO paradigm has been criticized for focusing too narrowly on explaining the external environment's impact on the competitive advantage of firms, while neglecting unique firm specific strengths and weaknesses (Barney, 1991). When tested empirically, IO has failed to explain significant profit differences across firms within the same industry. An example of this is Ghemawat's (2005) study of the average economic profits within the US steel and pharmaceutical industry during 1978-1996, in which significant differences in profitability across firms were found. The IO theory does not provide an answer to these big differences in profitability within industries, and therefore new theories and frameworks have been developed within strategy analysis. For example, the simple SWOT framework (Learned et al, 1969), which has been extensively adopted by practitioners, points to the importance of both considering internal and external factors to determine a firm's competitive advantage.³ To further explain these intra-industry differences in profitability, a new paradigm has developed within strategy analysis; the resource-based view.

3.4 The Resource-Based View

The resource-based view (RBV) focuses on the strengths and weaknesses of firms by emphasizing their resources and capabilities. Capabilities are the firm's capacity to deploy resources, usually in combination, to affect a desired end (Amit & Schoemaker, 1993). Thus the RBV considers the question "*How to get there?*" by looking into the box that constitutes the firm (Regnér, 1999). As opposed to Industrial Organization theory, the resource-based view takes an inside-out perspective by explaining profitability from the resources and capabilities inside the firm. According to Regnér (1999), there are two discourses within the RBV; the classical approach, which concerns existing resources within the firm, and the dynamic approach, which emphasizes how firms develop and acquire new resources in response to shifting business environments.

Early works within RBV identified resources as anything that could be thought of as a strength or weakness of a given firm (Wernerfelt, 1984). The emergence of RBV was a shift from focusing on products to focusing on balancing the development and exploitation of the firm's resources to gain and sustain competitive advantage. Successful companies could establish resource position barriers (a direct analogy from entry barriers) that would provide them with competitive advantage.

³ The SWOT framework was originally proposed by Learned et. al, 1959.

RBV scholars often define resources very broadly, and as Regnér (1999) puts it: "*If the definition (of RBV) is broadened there is a danger of including virtually all kinds of resources and competences*". This is a problem with the RBV. A too broad definition makes it hard to identify key resources and capabilities within firms. This makes empirical testing of RBV hard, which is a common problem of organizational-level management theories (Bacharach, 1979).

In order to redeem the problem with determining what constitutes resources within the RBV, different frameworks have been proposed. The VRIO framework (Barney, 1991) proposes four criteria that resources or capabilities must fulfill in order to lead to competitive advantage:

1. Valuable – Does a resource enable the company to exploit opportunities and/or neutralize threats?
2. Rareness – How many firms does already possess these capabilities and resources?
3. Imitability – Do firms without the resource face a cost disadvantage in obtaining it compared to firm that already possess the resource?
4. Organization - Is the firm organized and ready to exploit the resource/capability?

The VRIO framework can be used for determining whether a resource or capability is a source of long term competitive advantage based on these four factors. It has received extensive criticism for being too abstract, and thus lacks operational validity (Priem & Butler, 2001). Critics of the theory argue that it does not explain how to identify these resources and capabilities, but rather explains *ex post* what characterizes the resources and capabilities of successful firms (ibid). For example, Moskakowski (1998) criticized its usefulness by using a metaphor: "*A caricature of this would buy low. Sell high*". The concept of dynamic capabilities presented below is an attempt to provide more concrete frameworks within the RBV, and thereby increase its operational validity.

3.5 Dynamic capabilities

Increased competitiveness, in-part due to globalization, has intensified competition within many industries, and the competitive advantage of firms today is highly dynamic (Shuen & Pisano, 1997). Today, successful firms are those altering their resource base to achieve new forms of competitive advantage. Therefore, a new discourse within strategy has emerged around the concept of *dynamic capabilities*.

Dynamic capabilities are abilities that allow firms to adapt, integrate and reconfigure internal and external organizational capabilities and resources (Ibid). These three factors relate to the firm's ability to react to changes in the business environment by altering their resource and capability bases. Eisenhardt & Martin (2000) developed the following definition of dynamic capabilities:

"The firm's processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match and even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die."

The importance of both exploiting existing firm resources and capabilities and developing new ones has been mentioned in earlier RBV research as an important factor to sustain competitive advantage (Wernerfelt, 1984). However, the dynamic capability theory emphasizes *how* firms create competitive advantage by integrating, reconfiguring, gaining and releasing these resources and capabilities.

3.5.1 The components of dynamic capabilities

Along with other theories within the resource-based view, the concept of dynamic capabilities has been criticized for being vague and tautological (Priem & Butler, 2001). In response to this criticism, Eisenhardt & Martin (2000) claim that dynamic capabilities are identifiable and specific routines that firms use to match and even create market change. These capabilities have often been extensively researched, although not within the frame of dynamic capabilities. The characteristics of dynamic capabilities are not exactly the same for all firms, but common key features can be found which are often termed "best practice" in the business society (ibid). These dynamic capabilities can be identified, in either literature or business practice, and divided into four types based on how they manipulate firms' resources. The different types of dynamic capabilities will be presented below, with examples of specific routines or processes that have been identified in previous research.

Resource integrating dynamic capabilities

These capabilities refer to the integration of resources within the firm. Product development is one example, where firms combine their skills to create profitable products and services. Human resource management and successful integration of employees is another example. Strategic decision making can also be a dynamic capability in which managers and other decision makers pool their business, technical and personal expertise to make decisions that shape the strategy of the firm (Judge & Miller, 1991).

Resource reconfiguring dynamic capabilities

Transfer processes, with routines for replication and brokering, can be used by firms to copy, transfer and recombine resources (Eisenhardt & Martin, 2000). In particular, this refers to the knowledge-based resources within the firm, and how knowledge in firms can be transferred from old products, projects and clients into new situations (Hargadon & Sutton, 1997). Resource allocation routines are also an important source of competitive advantage, as they distribute scarce resources such as capital and manufacturing assets within the company (Burgelman, 1994). Another dynamic capability is patching, which refers to the strategic process in which firms continuously re-align their different units of the business to capture new opportunities created in changing business environments. An illustrative example is Dell's continuous re-segmentation of their operating businesses to better match shifting consumer demands (Magretta, 1998).

Resource releasing dynamic capabilities

The routines and capabilities that firms use to divest resources and capabilities that no longer contribute to competitive advantage as markets undergo change are another source of competitive advantage. An example of a firm lacking this dynamic capability is Firestone, a tire manufacturer in the US. They were too slow in responding to changing market conditions, and too slow in divesting the resources that had stopped contributing to their firm's competitive advantage (Sull, 2005). Thus, routines for releasing firm resources are of great importance in order to stay competitive in response to a changing environment.

Resource gaining dynamic capabilities

Lastly, this type of dynamic capability refers to the routines and capabilities by which firms acquire resources and create new thinking within the firm. Knowledge creation is a crucial capability, especially within knowledge intense industries such as pharmaceuticals (Henderson & Cockburn, 2000). Other routines relate to alliance and firm acquisition routines that bring new resources into the firm from external sources (Powell et al, 1996). For example, Cisco has a very efficient resource acquisition process whereby managers acquire products and knowledge (Ibid).

3.5.3 The impact of industry velocity on dynamic capabilities

Several studies have analyzed the importance of environmental velocity in determining what dynamic capabilities within different industries are. Moderately dynamic industries are defined as “[...] *Industries in which changes occurs frequently but along roughly predictable and linear paths. They have relatively stable industry structure and market boundaries are clear and the players [...] well known.*” (Burns & Stalker, 1966). In contrast, when markets are very dynamic, change becomes nonlinear and less predictable and the overall industry structure is unclear (Eisenhardt, 1989). The industries and test samples have differed, but the research indicates that the characteristics of dynamic capabilities differ between moderately dynamic and highly dynamic industries.

Fredricksson (1984) examined strategic decision making within the paint industry, a moderately dynamic industry. He found that efficient processes and routines were characterized by sequential problem solving, which began with a comprehensive collection of data, followed by development of choices, extensive analysis and then decision making. Other researchers have reached similar conclusions and named this practice “Learning before doing” (Pisano, 1994). Thus, case studies indicate that dynamic capabilities for firms within a moderately dynamic industry should be characterized by structured routines for integrating, reconfiguring, gain and release resources.

On the contrary, research conducted on high velocity markets indicate that successful firms use “Learning by doing” techniques, by not relying on existing knowledge but rather creating situation specific new knowledge. Existing knowledge within the firm can even be disadvantageous if managers rely too heavily on their knowledge for future decisions (Argote 1999). The dynamic capabilities of firms in high velocity market take the form of simple

routines and largely unstructured processes. One example is Yahoo's alliancing process, which only contains two rules for managers wanting to build alliances. This process has proven very successful for Yahoo (Eisenhardt & Sull, 2000).

Studies focusing on the relationship between industry velocity and dynamic capabilities have to a large extent focused on studying certain companies or industries in detail.⁴ A study looking on a broad set of firms and industries could contribute to a more general picture of the relationship between industry velocity and dynamic capabilities.

Another area of research within dynamic capabilities is how firms develop dynamic capabilities through organizational learning. This research tries to provide an answer what processes firms should undertake to develop dynamic capabilities in developing their routines and processes.⁵

3.5.4 Dynamic managerial capabilities

In 2003, Adner and Helfat (2003) analyzed managers' influence on firm performance, and introduced a new concept called *dynamic managerial capabilities* (DMC), as an extension of the dynamic capability theory. They define dynamic managerial capabilities as:

"Dynamic managerial capabilities are the capabilities with which managers build, integrate, and reconfigure organizational resources and competences"

After finding a positive relation between their dynamic managerial capability concept and firm performance, they focus on describing what factors the DMC's are based on. According to them, DMC's depend on three factors: managerial human capital, managerial social capital and managerial cognition.⁶ Managerial human capital is the knowledge managers possess. This is divided into generic knowledge, industry specific knowledge and firm specific knowledge. This division determines the transferability of managers' knowledge, where firm specific knowledge is the least transferable. Managerial social capital constitutes managers' social relationships, and their ability to use social ties to transfer information both within and outside the firm. Social ties have been proven to have a positive effect on profitability. Managerial cognition can be briefly described as the managerial beliefs and mental models

⁴ For examples of this see Pisano (1994), Fredricksson (1984)

⁵ See Zollo and Winter (2002) for further research about development and learning of dynamic capabilities for firms.

⁶⁶ For further readings on managerial human capital see Castanias and Helfat, 1991, managerial social capital (Burt 1992) and managerial cognition (Hoopes and Johnson, 2003)

that serve as a basis for decision making. The managerial perception base affects what decisions managers undertake and thus affect profitability. These three factors co-operate and constitute the base of managers' dynamic capabilities. Within Adner and Helfat's research, no framework for how the factors should be measured is introduced. They put an emphasis on drawing up new research areas within DMC, rather than on analyzing and giving examples of what can be DMC's in practice. Thus, research remains before the area can apply to business practice in an effective way. This is where our study comes in.

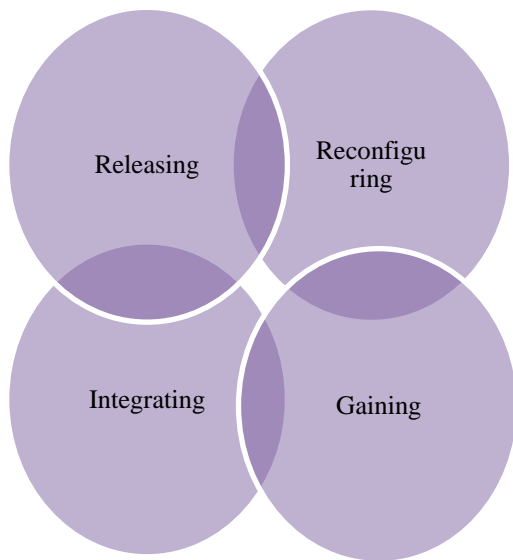


Figure 3. Various dynamic managerial capabilities make managers manipulate firm resources and capabilities in effective ways.

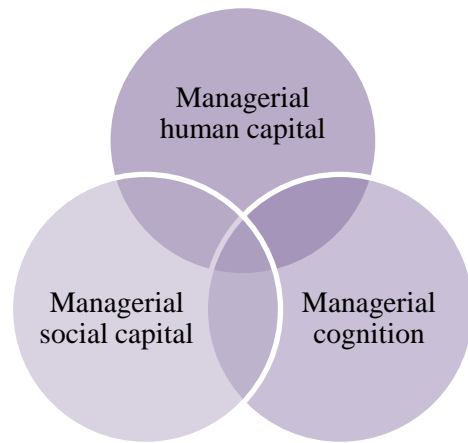


Figure 4. Work experience and education, social ties and information ties, and cognitive thought models for selecting and processing information provide the basis for developing dynamic managerial capabilities.

4. Analysis

4.1 Extending the concept of dynamic managerial capabilities

In this section, we try to extend the concept of dynamic managerial capabilities. We position the concept of DMC in relation to dynamic capabilities, and take a first step toward explaining what they can be in practice.

4.1.1 Dynamic managerial capabilities in relation to dynamic capabilities

In line with Adner & Helfat's (2003) research, we believe that managers' contribution to firm performance is of great importance. We view dynamic managerial capabilities as an important part of the more extensive dynamic capability concept. While dynamic capabilities include all routines and skills that enable firm's to manipulate its resources and capabilities, the dynamic managerial capabilities concept includes only those relating to leaders, making DMC's a more focused part of the general dynamic capability theory.

To explain what can be dynamic managerial capabilities in practice, we will start by distinguishing the differences between dynamic capabilities and DMC. We briefly review management research touching similar questions and discuss the distinction of dynamic managerial capabilities from general managerial capabilities. To be able to propose what can be DMC's in practice, we apply a framework analogized from the general dynamic capability view.

4.1.2 The relationship between dynamic capabilities and DMC

While firm dynamic capabilities refer to the combination of inherent processes, routines, corporate culture and the capabilities of managers and employees that firms undertake to alter their resource base, dynamic managerial capabilities focus on the part that managers play in this process. The concept of DMC thus lets us zoom into the managerial capabilities required to secure competitive advantage for the firm. As leaders and managers often play a vital role in driving change by implementing plans, formulating routines and redesign processes, we believe that dynamic managerial capabilities are a key component of the wider concept of firm dynamic capabilities.

4.1.3 Management research on dynamic leadership

Within management theory, much research has been undertaken regarding how change takes place within organizations. In particular, research on transformational leadership and change management tries to answer what is the factor driving change within organizations (Eisenbach et. al, 1999). These theories focus on explaining **how** leaders drive change by recognizing the need for change, formulating a vision and then institutionalizing changes (Tichy & Devanna, 1990). However, they do not answer **what** needs to be changed to gain competitive advantage, even though they both emphasize managers' key role in initiating change within firms and point out that dynamic leaders are a source of competitive advantage.

4.1.4 Dynamic managerial capabilities in relation to general managerial capabilities

To better understand the concept of DMC, we must be able to distinguish dynamic managerial capabilities from general managerial capabilities. By general managerial capabilities, we mean all skills and capabilities managers use in their decision making, including dynamic capabilities. These general capabilities can range from social skills, firm-specific skills, knowledge of technology or any other skills or capabilities useful in the manager's activities within the firm. In contrast, dynamic managerial capabilities refer only to the skills and capabilities by which managers manipulate the resource base of the firm.

Having stated this, we are aware of the difficulties in distinguishing between general and dynamic capabilities, and without a framework there is a risk that any capability of a successful manager is categorized as a "dynamic managerial capability". In addition, it is hard to propose any examples of what dynamic managerial capabilities could be without having a

framework to relate to. To overcome this problem, we make an analogy to the theory on dynamic capabilities of firms.

4.1.5 Using a framework to propose what can be dynamic managerial capabilities

As research on DMC is sparse, there are no ready frameworks for assessing DMC's. While Adner & Helfat⁷ focus on the factors underlying managers' dynamic capabilities, there are no frameworks for determining what they can be in practice. To redeem this, we have chosen to draw an analogy from Eisenhardt & Martin's (2000) dynamic capability perspective. In their study of what dynamic capabilities could be in practice, they divided dynamic capabilities into four groups based on how they affected the resource base of the firm. We use the same four groups to separate our different DMC's. In addition, as DMC's are an important part of dynamic capabilities, we are able to use many of the dynamic capabilities proposed in their work as a basis for our analysis. However, in line with the DMC concept, our research focuses on the manager's role in stimulating and enhancing these dynamic capabilities. This point of departure gives us a framework for analyzing what DMC's can be in practice. To complement this and give us a broader understanding of dynamic managerial capabilities, other literature has been studied⁸ as well, to create a solid starting point for analyzing what can be dynamic managerial capabilities in practice.

The analogy from dynamic capabilities to DMC described above has not been done before. Because of this, we are very cautious in our analysis, and we do not try to draw any distinct and mutually exclusive conclusions, but we rather seek to study what DMC's might be in practice. We are aware of the weakness with this approach, in particular that it does not capture possible industry differences in dynamic capabilities. We are also aware of the fact that there may be other possible dynamic capabilities than those mentioned in the literature we have studied. Despite this, we considered this to be a good starting point for an extension of the DMC concept, while further research could be more specific and research other possible dynamic managerial capabilities.

Below, we follow the methodology we have based our analogy upon, and present examples of the skills and capabilities that managers can use to ensure effective resource manipulation within their firms.

⁷ Described in the theoretical framework

⁸ Described in the theoretical framework

Resource reconfiguration managerial capabilities

These are the routines by which managers reconfigure resources in the firm. These resources can be machines used in production, financial assets or employees, but evaluation of projects to learn for the future also fits in. In this study, we focus on manager's role in evaluation of projects, and how managers' can help ensuring an effective employee redistribution process within firms. We believe that managers' skills and capabilities can contribute significantly to these two examples of resource reconfiguration processes. When evaluating projects, the organization can learn for the future and thereby gain competitive advantage. Here, managers play an important role in not only initiating processes for project evaluation, but also in interpreting the results and communicating them. *Thus, a manager's skills and capacity to work with processes and routines for evaluating projects, and thereby reconfiguring resources, might constitute a dynamic managerial capability.* Similarly, when decisions regarding redistribution of resources within a firm are to be taken, managers with good routines and skills in prioritizing and matching the needs of the firm with the firm's available resources may play an important role in making the reconfiguration of resources successful. *Thus, a manager's skill in working with routines for resource redistribution within the firm might constitute an important dynamic managerial capability.*

Resource gaining managerial capabilities

These are the routines by which managers obtain new resources to the firm. These resources may consist of material, human resources, acquisition of other firms, or knowledge. As corporate acquisition and alliancing decisions are often taken at high levels of the organization, the manager has the opportunity to make a big impact on these decisions. *This makes us believe that managers' skills and capabilities in seeking and evaluation potential corporate acquisitions might constitute an important dynamic managerial capability.* However, when it comes to acquisition of more recurring assets, such as financial, material, or in some cases human capital, we believe that managers' capabilities play a different role. As these purchases are likely to occur more frequently than corporate acquisitions, we believe that the best practice for managers is to establish routines for handling this type of resource gaining processes. *Thus, we believe that managers' use of well-functioning routines for acquisitions might constitute a dynamic managerial capability.*

Resource releasing managerial capabilities

Resource releasing managerial capabilities are the skills and capabilities by which managers take decisions to exit and divest unprofitable investments or projects when they no longer contribute to the firms competitive advantage. The size of the projects might affect the best practice for managers' to engage in divesting decisions. For large project of great importance for the firm, managers' may play an active strategic decision making role, as the decision might affect the future profitability and competitive advantage of the firm. For smaller projects, managers' might draw up exit routines to ensure proper and timely divestiture of projects. Either way, managers play an important role as they affect which resources, and when, they are released from the firms resource base. In this study, we focus more deeply on exit routines. *We believe that the extent to which managers establish routines for exiting projects within a firm might constitute an important dynamic managerial capability.* We also believe that this capability is particularly important for firms in high-velocity industries, where change is quick, unpredictable and constant.

Resource integration managerial capabilities

These are the routines managers use to integrate resources within the firm. We believe that this capability is the one that has been researched the most within the management discipline, e.g around the concept of transformational leadership described earlier in this section. By integrating resources, managers make the firm more efficient. Our belief is that managers are most important within the integration of knowledge and employees. These are very intangible processes where managers play a vital role in facilitating the integration process within the firm between employees and between divisions of the firm. As touched upon in management literature, managers motivate employees by creating teams, visions, and a strong corporate culture. We interpret this as efforts to integrate human resources, so that they can be used more efficient. *Thus, we believe that a manager's skills and capacity to integrate employees within the firm might be a dynamic managerial capability.* We also believe that managers play an important role in integrating knowledge within the firm. This is particularly important between divisions that are isolated from each other. For example, managers can work to integrate the knowledge regarding what the consumers demand acquired through the marketing department into the R&D department. The outcome of efficient knowledge integration is that the firm utilizes its knowledge resources in a more efficient way, with an increase in sales as potential effect. *Thus, we believe that a manager's efforts and skills to integrate knowledge within a firm might constitute a dynamic managerial capability.*

4.2 Empirical test of dynamic managerial capabilities

To take a step toward empirically testing if the concept of dynamic managerial capabilities presented above might affect firms' competitive advantage, and to see if the characteristics of dynamic managerial capabilities vary with industry velocity, we conduct our own survey. We do not believe that this is a mutually exclusive way of covering all possible dynamic managerial capabilities, but the purpose of conducting this test is rather to see if this way of testing hypothesized DMC's quantitatively may support the more qualitatively research related to the area. In the test, we measure whether some of the DMC's presented above can explain the perceived competitive advantage of firms. We also compare two data sets, separated on the basis of environmental velocity.

4.2.1 Test hypotheses

When choosing what possible DMC's to test, we have selected those that we have focused on in the first part of our analysis above. To make them as easy to distinguish as possible, we have selected DMC's that manipulate different resource bases in different ways. Below follows a list of the hypotheses used to test our proposed DMC's in the survey:

H1a. The extent to which managers work to integrate knowledge within a firm is positively related to the firm's perceived competitive advantage

H1b. The extent to which managers work to integrate employees (human resources) within a firm is positively related to the firm's perceived competitive advantage

H1c. The extent to which managers use routines to redistribute resources within a firm is positively related to the firm's perceived competitive advantage

H1d. The extent to which managers evaluate the distribution of resources within a firm is positively related to the firm's perceived competitive advantage

H1e. The extent to which managers establish routines for exiting projects within a firm is positively related to the firm's perceived competitive advantage

H1f. The extent to which managers within a firm seek and evaluate possible corporate acquisitions is positively related to the firm's perceived competitive advantage

H1g. The extent to which managers within a firm have well functioning routines for acquiring resources is positively related to the firm's perceived competitive advantage

4.2.2 Test method

To assess any eventual relation between our hypothesized dynamic managerial capabilities and the competitive advantage of firms, we conduct a multiple regression analysis based on survey data. The survey primarily consists of statements regarding the characteristics of the respondent's firm's industry, of the capabilities of leaders' within the firm, and of the firm's competitive advantage. In order to find respondents with a clear perception of all these facts, we chose CEO's and Chairmen of the Board as target respondents. We also needed to choose a lower limit for firm size, in order for the companies to be large enough to have significance for our test. This limit was set to MSEK 100.

4.2.3 Sample description

Our single source for e-mail addresses to our respondents is Postens Adress Register (PAR), from which we bought a mailing list containing 1000 email addresses to CEO's, chairmen of the board, and HR-managers in equal proportions. As HR-managers were not in the target group for this study, they replies were sorted out of the analysis. When e-mailing the survey web link to our initial mailing list, 83 addresses were found to be either invalid or general⁹, so 83 new e-mail addresses were provided by PAR. These 83 new respondents were consequently e-mailed without any delay. Of these 83 new addresses, 7 were either general or invalid, resulting in 993 respondents being reached by our survey. The survey was open for submissions during three weeks, and during this time, two survey reminders were sent to all respondents. After these three weeks, 309 persons had completed the survey, of which 107 respondents were HR-managers or in other positions excluded from our study. After removing 4 incomplete surveys, we were left with 198 valid respondents from our target group, which we consider a clearly acceptable response rate.

4.2.4 Survey development and administration

The survey consisted of 24 statements to measure the industry, the managers' capabilities, and the competitive advantage of the respondent's firm, as perceived by the respondent. The respondents have been asked to grade these statements on a 7-grade Likert scale ranging from 1 to 7, where 1 indicates "Strongly disagree" and 7 indicates "Strongly agree", if nothing else is stated below. These measures are presented as a whole further down in the text.

⁹ With general, we mean unspecific e-mail addresses such as info@<company name>.com or contact@<company name>.com.

The statements were pre-tested by ten respondents similar to those in the target group, in order to ensure that the final respondents would understand them. The statements, and the design of the survey, were also tested by an expert in the field of quantitative research, Marie Bergholm Palmér.¹⁰ Based on the feedback from these sources, the survey was refined to make the questions easier to understand and answer. After another pre-test, the survey was distributed online using the survey management program Qualtrics, for the convenience of the respondents and also to ease the data assembly process. The survey was conducted in Swedish, in order to make the survey as accessible as possible.

4.2.5 Choice of test method

We use multiple regression analysis to test our hypotheses. We perform our test in two steps. The first step aims to determine if dynamic managerial capabilities may cause competitive advantage, and thus whether we can reject or accept our first hypothesis set. To do this, we use competitive advantage as a dependent variable and multiple independent variables to indicate our suggested dynamic managerial capabilities. This will let us reject or accept our first hypothesis set. In the second part, we split our sample into two parts, one with low levels of velocity and one with higher levels of velocity. This will let us test any potential effect environmental velocity might have on the relation between dynamic managerial capabilities and competitive advantage. We then perform the same analysis as described above for the two data sets separately, to be able to compare any eventual differences in the results between companies in industries with low- and high environmental velocity.

4.2.6 Control of the data material

To ensure that our data set was fit for multiple regressions, it was tested for normality, and it proved to be significantly normally distributed. We also analyzed variance inflation factors (VIF) to ensure that we did not have a problem with multicollinearity between our independent variables. We found no indications of multicollinearity problems. Finally, we did not find signs of heteroscedasticity in our data set.

Our sample size of 198 respondents is considered large enough to perform our analysis (Hair et al, 1998). We have also checked the data set for outliers, both by scanning scatter plots and by testing the Mahalanobis distance, to increase the robustness of our data. The Mahalanobis

¹⁰ Marie Bergholm Palmér has extensive experience from both quantitative and qualitative marketing research and today runs her own company Comcare AB working with marketing research.

distance is 0–1 for all observations, which indicates that outliers do not cause significant disturbance to our dataset (Hair et al 1998).

4.2.7 Measures and constructs

To undertake our analysis, we needed measures of environmental velocity, leader capabilities and the competitive advantage of firms. In order for our outcomes to be reliable and comparable to other research, these measurements have to the largest extent possible been drawn from existing theory and research. When necessary, slight adjustments have been made to make them more applicable to our specific research area. When we have had to design variables specific to our research concept ourselves, we have based the measures on theoretical literature as much as possible. When applicable, constructs have been created to facilitate the analysis. All created constructs have a Cronbach's α value higher than 0.70, indicating acceptable reliability and internal consistency.¹¹ The measures and constructs are presented briefly below.

Environmental velocity

In order to measure the environmental velocity in the respondent's firm's industry, the respondents were asked to respond to five statements regarding the industry in which their firm was primarily active. All these measures were added to a construct, VELTOT, to measure the firm's total industry velocity. None of them were removed on the basis of Cronbach's alpha.

Environmental velocity construct (Cronbachs α = 0,714)

- The lifecycle of the products or services offered within our industry is very short

Strongly Disagree - Strongly Agree

- It is almost impossible to predict customer preferences and demands in a reliable way

Strongly Disagree - Strongly Agree

- The activities of our largest competitors are hard to predict, and the competition is intense

Strongly Disagree - Strongly Agree

- Technological change in the industry occurs frequently and quickly

Strongly Disagree - Strongly Agree

- The identity of the main players within the industry (the biggest suppliers, customers and competitors) varies constantly

Strongly Disagree - Strongly Agree

¹¹ Hair et al., 2006

Dynamic managerial capabilities

To be able to test the concept of dynamic managerial capabilities, we needed to design our own measurement variables, based on our analysis above. To keep the capabilities mutually exclusive, we used 9 measures to create 7 different constructs. We consider 9 measures to be an appropriate limitation for researching these 7 constructs. These include routines for resource redistribution, routines for evaluation of resource configurations, knowledge integration, human capital integration, exit routines, strategic alliance routines and resource acquisition routines. The survey questions are presented below, translated into English.

Resource releasing managerial capabilities

Exit routines

Managers within our company have established routines and schedules for when to exit projects (e.g to leave a market or divest a product)

Strongly disagree - Strongly agree

Resource gaining managerial capabilities

Alliancing

Managers within our company continuously work with seeking and evaluating potential corporate acquisition targets

Strongly disagree - Strongly agree

Resource acquisition

Managers within our company have well functioning routines for seeking and acquiring both material and financial resources

Strongly disagree - Strongly agree

Resource integrating managerial capabilities

Knowledge integration

- Managers within our company work actively to create and spread new knowledge within the company

Strongly disagree - Strongly agree

Teamwork, culture, visions (Cronbachs $\alpha = 0,755$)

Managers within our company work continuously to keep a consistent corporate culture

Strongly disagree - Strongly agree

Managers within our company work continuously to create and maintain a shared corporate vision

Strongly disagree - Strongly agree

Resource reconfiguring managerial capabilities

Resource redistribution routines

Managers within our company follow strict routines when redistributing resources within the company

Strongly Disagree - Strongly Agree

Resource evaluation routines (Cronbachs $\alpha = 0,886$)

- Managers within our company continuously evaluate the distribution of both material and financial resources and make priorities

Strongly disagree - Strongly agree

-Managers within our company continuously evaluate the distribution of personnel within different parts of the company

Strongly disagree - Strongly agree

Competitive advantage

Four measures were adopted to indicate the competitive advantage of the respondent's firm as perceived by the respondent. They were identified through literature review, and include speed of response to the market, efficiency in production of products or services, the quality of products and services, and speed and amount of innovation (See WU).¹² To compare performance against other industry players, the scale ranged from 1, *Below industry average*, to 7, *Above industry average*. All these measures were added to a construct, COMPADV, to measure the firm's competitive advantage. None of them were removed on the basis of Cronbach's alpha.

Competitive advantage construct

(Cronbachs α =0,782)

Our company's speed in adjusting its' operations to meet changes in market demands is
Below industry average – Above industry average (Eisenhart bla)

Our company's efficiency in production of products and services is
Below industry average – Above industry average

The quality of the products or services that our company offers is
Below industry average – Above industry average

The speed in, and amount of, innovation within our company is
Below industry average – Above industry average

4.2.8 Reliability

A study should have high reliability, to ensure that equal independent studies yield the same results (Holme och Solvang, 1991). To reach the highest reliability possible in our research data, the survey targets the individuals in firms that are expected to be most knowledgeable about the factors we aim to measure. CEO's and chairmen can be expected to be well informed regarding the primary industry of the firm, the characteristics and capabilities of leaders within the firm, and of the firm's performance. In order to ensure that the respondents would have no problem understanding and answering the questions in the survey, it was pre-tested and redesigned based on feedback from various groups, as mentioned earlier. To ensure the reliability of the constructs, Cronbach's alpha was used to measure inter-item correlations for all multi-item constructs. All multi-item constructs showed acceptable levels of Cronbach's alpha, and are thus considered reliable measures.

4.2.9 Validity

The validity of the study measures the degree to which the researcher's research question is explained by the selected research method (Hair et al. 1998). To increase validity, all measures and constructs used in the study have been described theoretically in strategy and management literature. In addition, whenever applicable, the measures used in this survey are based on measures used in prior research to measure the same area of interest, which increases their validity. A downside to our way of testing DMC is that we use competitive advantage as perceived by the respondents. While the respondents know much about their own operations, it is possible that they are not knowledgeable of how they compare to the industry average, and also that their answers are biased due to their role in the company. Ideally, financial performance data could be used to redeem this. However, at a sample of this size, including this would range outside the scope of our essay. Thus, despite its apparent weaknesses, we believe that competitive advantage as perceived by the respondents is the best way to test DMC within our study's scope.

4.2.10 Test results

This section will present and comment on the outcome of our regression analyses. For more detailed data, refer to the Appendix.

We performed a step-wise regression analysis to rule out rejected hypotheses. The result from the first run is presented below:

Variable	Significance	Beta	Status
H1a. KNOWLEDGEMAN	0,204**	0,006	KEEP
H1b. TEAMWORK	0,214**	0,003	KEEP
H1c. REDISTRIBUTE	0,1	0,174	KEEP
H1d. EVALUATION	0,1	0,21	KEEP
H1e. EXITROUTINES	0,102*	0,128	KEEP
H1f. ACQUISITION	0,156**	0,013	KEEP
H1g. GAINRESOURCES	0,049	0,481	REJECT
* Sign. at 0.15 ** Sign. at 0.05			

Table 1. First step of multiple regression analysis

As can be seen in Table 1, the variable GAINRESOURCES was very insignificant and had a low Beta value compared to the others. Thus, we reject this hypothesis and exclude its variable in our second regression.

Variable	Significance	Beta	Status
H1a. KNOWLEDGEMAN	0,217**	0,003	ACCEPT
H1b. TEAMWORK	0,211**	0,003	ACCEPT
H1c. REDISTRIBUTE	0,109*	0,133	ACCEPT
H1d. EVALUATION	0,108	0,175	REJECT
H1e. EXITROUTINES	0,105*	0,116	ACCEPT
H1f. ACQUISITION	0,165**	0,007	ACCEPT
* Sign. at 0.15 ** Sign. at 0.05			

Table 2. Second step of multiple regression analysis

As can be seen in Table 1 and Table 2 above, two out of our seven hypotheses were rejected, indicating that we found no distinct empirical indications of a causal relationship between these variables and the competitive advantage of firms in our sample. The first rejected hypothesis, H1g, relate to the proposed DMC by which managers add new resources firms. The insignificance of its relation to competitive advantage might be due to many different factors. First and foremost, it is possible that managerial capabilities in seeking and acquiring resources do not contribute much to firms' competitive advantage, which would indicate that the tested capability in fact is not a DMC. However, it is also possible that the way the question was designed in the survey was vague, and therefore hard for the respondents to understand and reply to. The second rejected hypothesis, H1d, relate to the proposed DMC by which managers evaluate existing resources configurations. The possible reasons for its rejection are the same as with the first reject hypothesis.

On the other hand, we were able to accept the remaining five hypotheses, on differing terms when it comes to significance. The most significant relations to competitive advantage were found for hypotheses H1a, H1b and H1f. This result supports the hypotheses that the managerial capabilities that facilitate knowledge spreading, integrate human resources, and by which managers work with acquisition of resources might be dynamic managerial capabilities as described in the analysis above. The hypotheses H1c and H1d were accepted using the lower significance level, which indicates a weaker relation between these variables and competitive advantage.

Comparison of test results across industry velocity

To see if the characteristics of dynamic managerial capabilities differed with industry velocity, we divided our sample into two separate data sets. In order to ensure strong differences between the data sets, we excluded the respondents with medium levels of industry velocity. Each of our two samples contained 35 samples, with the “low” sample being the 35 samples with lowest values in our velocity construct, and vice versa. We then performed the same regression as for the first hypothesis, excluding the GAIN variable. However, as we do not test the significance of the differences presented below, we use this section to present interesting areas for future research rather than to make strong conclusions.

	Beta value, low environmental velocity	Beta value, high environmental velocity	Difference
REDISTR	0,154	0,159	-0,005
EVAL	0,153	-0,11	0,263
EXIT	0,048	0,139	-0,091
ALLIANCE	0,105	0,076	0,029
KNOWL	-0,014	0,247	-0,261
TEAM	0,234	0,18	0,054

Table 3. Comparison across industry velocity

As can be seen in Table 3 above, differences between the beta values of firms in low velocity industries and high velocity industries exist primarily for two of our variables, EVAL and KNOWL. The EVAL variable relates to the proposed DMC by which managers evaluate existing and finished projects to learn from them. In our multiple regression analysis above, we rejected the hypothesis on the basis of too low significance. It is possible that the big difference in this variable is that it relies on existing knowledge to create future competitive advantage, which as presented briefly in the theory section, has been claimed to be ineffective or even hazardous in high velocity markets by some scholars. The KNOWL variable relates to the proposed DMC by which managers create and spread new information within firms. It is possible that the manager's role in facilitating and creating knowledge is elevated in markets undergoing constant change.

5. Conclusion

Our research has indicated that the DMC's we have proposed, based on our analogy from dynamic capabilities and our analysis, are positively related with the competitive advantage perceived by the respondents. However, we are very cautious when drawing conclusions and analyzing the quantitative study, as the amount of research and theory within DMC is sparse. The results should be interpreted with this in mind, and thus, our findings should rather be seen as a foundation for further research into the area than prescriptive conclusions on dynamic managerial capabilities are. In our second research question, we wanted to see if the characteristics of dynamic managerial capabilities differed depending on industry velocity. We found interesting differences in our data, indicating that there are indeed differences based on industry velocity. Further research should focus more specifically on what the differences are; we will develop this in the next section.

5.1 Suggestions for further research

The concept of dynamic managerial capabilities has not been extensively researched and thus there are many areas where research needs to be conducted to understand DMC's better. However we have focused on two suggestions for further research that we believe are particularly important. Our first suggestion is that a framework should be elaborated, similar to the VRIO framework within the RBV, on how to define and evaluate DMC. This, we believe, would increase the applicability of the research and provide scholars with a joint basis for further research within the area.

Our second suggestion relates to the differences in DMC's depending on industry velocity. Our study gave indications on that there were indeed differences; however this needs to be more thoroughly researched. Focus should be put on describing what the differences relate to, more exactly. This research can also focus on specific industries and seek to identify industry-specific DMCs. Studies on industry-specific dynamic capabilities for firms have been carried out previously with interesting results, and we believe similar studies can be performed on the concept of DMC. This research would also increase the use for practitioners, and more specifically highlight what the dynamic managerial capabilities really are.

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7. Appendix

7.1 Regression data

Data for multiple regression of the total sample

Regression coefficients, run 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,448	,303		8,072	,000		
	REDISTR	,064	,047	,100	1,365	,174	,678	1,476
	EVAL	,074	,059	,100	1,257	,210	,568	1,761
	EXIT	,055	,036	,102	1,528	,128	,818	1,223
	ALLIANCE	,063	,025	,156	2,504	,013	,927	1,079
	GAIN	,029	,041	,049	,706	,481	,761	1,314
	KNOWL	,148	,053	,204	2,770	,006	,664	1,506
	TEAM	,153	,051	,214	2,990	,003	,708	1,412

Regression coefficients, run 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,485	,299		8,324	,000		
	REDISTR	,070	,046	,109	1,510	,133	,698	1,433
	EVAL	,079	,058	,108	1,361	,175	,577	1,732
	EXIT	,057	,036	,105	1,578	,116	,821	1,218
	ALLIANCE	,067	,025	,165	2,706	,007	,966	1,035
	KNOWL	,157	,052	,217	3,020	,003	,702	1,425
	TEAM	,151	,051	,211	2,960	,003	,710	1,408

Descriptive Statistics

	Mean	Std. Deviation	N
COMP	5,1915	,82907	198
REDISTR	4,1465	1,28394	198
EVAL	4,6566	1,12909	198
EXIT	4,0808	1,51926	198
ALLIANCE	3,2525	2,04688	198
GAIN	4,70	1,391	198
KNOWL	4,9798	1,14422	198
TEAM	5,4192	1,16027	198

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,559 ^a	,313	,288	,69972

a. Predictors: (Constant), TEAM, ALLIANCE, EXIT, GAIN, REDISTR, KNOWL, EVAL

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42,383	7	6,055	12,366	,000 ^a
	Residual	93,026	190	,490		
	Total	135,409	197			

a. Predictors: (Constant), TEAM, ALLIANCE, EXIT, GAIN, REDISTR, KNOWL, EVAL

b. Dependent Variable: COMP

Correlations

		COMP	REDISTR	EVAL	EXIT	ALLIANCE	GAIN	KNOWL	TEAM
Pearson Correlation	COMP	1,000	,296	,403	,229	,211	,284	,415	,413
	REDISTR	,296	1,000	,490	,376	-,037	,312	,220	,257
	EVAL	,403	,490	1,000	,343	,133	,369	,439	,422
	EXIT	,229	,376	,343	1,000	-,008	,201	,112	,112
	ALLIANCE	,211	-,037	,133	-,008	1,000	,214	,091	,079
	GAIN	,284	,312	,369	,201	,214	1,000	,350	,194
	KNOWL	,415	,220	,439	,112	,091	,350	1,000	,479
	TEAM	,413	,257	,422	,112	,079	,194	,479	1,000
Sig. (1-tailed)	COMP		,000	,000	,001	,001	,000	,000	,000
	REDISTR	,000		,000	,000	,301	,000	,001	,000
	EVAL	,000	,000		,000	,031	,000	,000	,000
	EXIT	,001	,000	,000		,454	,002	,058	,059
	ALLIANCE	,001	,301	,031	,454		,001	,101	,134
	GAIN	,000	,000	,000	,002	,001		,000	,003
	KNOWL	,000	,001	,000	,058	,101	,000		,000
	TEAM	,000	,000	,000	,059	,134	,003	,000	
N	COMP	198	198	198	198	198	198	198	198
	REDISTR	198	198	198	198	198	198	198	198
	EVAL	198	198	198	198	198	198	198	198
	EXIT	198	198	198	198	198	198	198	198
	ALLIANCE	198	198	198	198	198	198	198	198
	GAIN	198	198	198	198	198	198	198	198
	KNOWL	198	198	198	198	198	198	198	198
	TEAM	198	198	198	198	198	198	198	198

Data for high environmental velocity sample regression

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	80,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2,342	1,024		2,288	,030	,998	3,686
REDISTR	,159	,123	,252	1,290	,208	-,003	,321
EVAL	-,110	,169	-,135	-,654	,519	-,332	,111
EXIT	,139	,106	,254	1,319	,198	,001	,278
ALLIANCE	,076	,074	,181	1,024	,315	-,021	,173
KNOWL	,247	,133	,312	1,859	,074	,073	,421
TEAM	,180	,109	,298	1,662	,108	,038	,323

a. Dependent Variable: COMP

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6,674	6	1,112	1,900	,116 ^a
Residual	16,389	28	,585		
Total	23,063	34			

a. Predictors: (Constant), TEAM, REDISTR, KNOWL, ALLIANCE, EXIT, EVAL

b. Dependent Variable: COMP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,538 ^a	,289	,137	,76506

a. Predictors: (Constant), TEAM, REDISTR, KNOWL, ALLIANCE, EXIT, EVAL

Correlations

		COMP	REDISTR	EVAL	EXIT	ALLIANCE	KNOWL	TEAM
Pearson Correlation	COMP	1,000	,229	,249	,305	,028	,278	,323
	REDISTR	,229	1,000	,370	,425	-,321	-,043	-,035
	EVAL	,249	,370	1,000	,393	,008	,234	,390
	EXIT	,305	,425	,393	1,000	-,302	-,039	,212
	ALLIANCE	,028	-,321	,008	-,302	1,000	-,026	,048
	KNOWL	,278	-,043	,234	-,039	-,026	1,000	,079
	TEAM	,323	-,035	,390	,212	,048	,079	1,000
Sig. (1-tailed)	COMP	.	,093	,075	,038	,436	,053	,029
	REDISTR	,093	.	,014	,006	,030	,404	,422
	EVAL	,075	,014	.	,010	,481	,088	,010
	EXIT	,038	,006	,010	.	,039	,412	,110
	ALLIANCE	,436	,030	,481	,039	.	,442	,393
	KNOWL	,053	,404	,088	,412	,442	.	,327
	TEAM	,029	,422	,010	,110	,393	,327	.
N	COMP	35	35	35	35	35	35	35
	REDISTR	35	35	35	35	35	35	35
	EVAL	35	35	35	35	35	35	35
	EXIT	35	35	35	35	35	35	35
	ALLIANCE	35	35	35	35	35	35	35
	KNOWL	35	35	35	35	35	35	35
	TEAM	35	35	35	35	35	35	35

Descriptive Statistics

	Mean	Std. Deviation	N
COMP	5,5049	,82361	35
REDISTR	4,3429	1,30481	35
EVAL	4,7857	1,00941	35
EXIT	3,9714	1,50461	35
ALLIANCE	3,7429	1,96053	35
KNOWL	4,9143	1,03955	35
TEAM	5,2571	1,35783	35

Data for low environmental velocity sample regression

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	80,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,865	,860	2,168	,039	,736	2,994
	REDISTR	,154	,119	,243	,207	-,003	,310
	EVAL	,153	,128	,225	,242	-,015	,322
	EXIT	,048	,100	,091	,635	-,083	,179
	ALLIANCE	,105	,064	,253	,110	,022	,189
	KNOWL	-,014	,145	-,020	,925	-,205	,177
	TEAM	,234	,172	,261	,183	,009	,459

a. Dependent Variable: COMP

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,384	6	1,731	3,116	,018 ^a
	Residual	15,551	28	,555		
	Total	25,936	34			

a. Predictors: (Constant), TEAM, EXIT, ALLIANCE, REDISTR, EVAL, KNOWL

b. Dependent Variable: COMP

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,633 ^a	,400	,272	,74526

a. Predictors: (Constant), TEAM, EXIT, ALLIANCE, REDISTR, EVAL, KNOWL

b. Dependent Variable: COMP

Correlations

		COMP	REDISTR	EVAL	EXIT	ALLIANCE	KNOWL	TEAM
Pearson Correlation	COMP	1,000	,487	,428	,351	,250	,399	,376
	REDISTR	,487	1,000	,454	,365	,055	,558	,405
	EVAL	,428	,454	1,000	,531	-,039	,395	,237
	EXIT	,351	,365	,531	1,000	,216	,349	,013
	ALLIANCE	,250	,055	-,039	,216	1,000	,039	-,104
	KNOWL	,399	,558	,395	,349	,039	1,000	,584
	TEAM	,376	,405	,237	,013	-,104	,584	1,000
Sig. (1-tailed)	COMP	.	,001	,005	,019	,074	,009	,013
	REDISTR	,001	.	,003	,015	,376	,000	,008
	EVAL	,005	,003	.	,001	,412	,009	,085
	EXIT	,019	,015	,001	.	,106	,020	,471
	ALLIANCE	,074	,376	,412	,106	.	,411	,276
	KNOWL	,009	,000	,009	,020	,411	.	,000
	TEAM	,013	,008	,085	,471	,276	,000	.
N	COMP	35	35	35	35	35	35	35
	REDISTR	35	35	35	35	35	35	35
	EVAL	35	35	35	35	35	35	35
	EXIT	35	35	35	35	35	35	35
	ALLIANCE	35	35	35	35	35	35	35
	KNOWL	35	35	35	35	35	35	35
	TEAM	35	35	35	35	35	35	35

Descriptive Statistics

	Mean	Std. Deviation	N
COMP	4,9929	,87339	35
REDISTR	4,0286	1,38236	35
EVAL	4,6429	1,28092	35
EXIT	4,4000	1,66627	35
ALLIANCE	3,5143	2,10561	35
KNOWL	4,8571	1,26358	35
TEAM	5,4857	,97382	35

7.2 Survey design, untranslated

Ta ställning till följande påståenden om den bransch som ditt företag verkar i

	1- Stämmer inte alls	2	3	4	5	6	7- Stämmer helt
Livscykeln hos de produkter eller tjänster som erbjuds inom vår bransch är väldigt kort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Att förutse förändringar i vad kunder efterfrågar och föredrar är väldigt svårt att göra på ett träffsäkert sätt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Våra största konkurrenters aktiviteter är svåra att förutse och konkurrensen inom branschen är intensiv	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teknologiskiften i den huvudsakliga bransch som vårt företag är verksamt i sker ofta och snabbt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vilka som är de huvudsakliga aktörerna inom branschen (de största leverantörerna, kunderna och konkurrenterna) varierar konstant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ta ställning till följande påståenden om kunskaper och rutiner hos chefspersoner inom ert företag

		1- Stämmer inte alls	2	3	4	5	6	7-Stämmer helt
Chefspersoner inom vårt företag har väl fungerande rutiner för att utvärdera och dra lärdomar av tidigare projekt		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag utvärderar kontinuerligt fördelningen av personal mellan olika delar av företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag utvärderar kontinuerligt fördelningen av andra resurser mellan delar av företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar med fasta rutiner när de omfördelar resurser inom företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar kontinuerligt med att söka och utvärdera potentiella företagsförvärv		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		1- Stämmer inte alls	2	3	4	5	6	7- Stämmer helt
Chefspersoner inom vårt företag arbetar kontinuerligt med att utvärdera samarbeten eller allianser med andra företag		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag har väl fungerande rutiner för att söka efter och anskaffa resurser (både materiella och finansiella) till företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar aktivt med att skapa och sprida ny kunskap inom företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag har vana av att göra nedskärningar för att uppnå kostnadsbesparningar		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag har fastställda rutiner och scheman för när vi bör avsluta ett projekt (ex lämna en marknad eller avyttra en produkt)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		1- Stämmer inte alls	2	3	4	5	6	7- Stämmer helt
Chefspersoner inom vårt företag arbetar kontinuerligt för att utvärdera och prioritera fördelningen av resurser (både materiella och finansiella) inom företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar kontinuerligt för att skapa samarbete och förståelse mellan olika avdelningar/delar av företaget		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar kontinuerligt för att bibehålla en enhetlig företagskultur		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar kontinuerligt för att skapa och bibehålla en gemensam vision		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chefspersoner inom vårt företag arbetar kontinuerligt för att skapa och bibehålla en gemensam vision		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ta ställning till följande påståenden som beskriver ert företag i jämförelse med andra företag i branschen

	1- Under branschsnitt	2	3	4	5	6	7 -Över branschsnitt
Vårt företags snabbhet i att anpassa verksamheten för att möta förändringar i vad kunderna på marknaden efterfrågar är:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vårt företags effektivitet i produktionen av varor eller tjänster är:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kvaliteten på de produkter eller tjänster vårt företag erbjuder är:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Snabbhet och mängd innovation inom vårt företag är:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>