DYNAMIC CAPABILITIES AND COMPETITIVE ADVANTAGE: FINDINGS FROM CASE STUDIES*

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Our paper highlights the importance of the dynamic capabilities perspective as a field of study in today's dynamic environment. The dynamic capabilities view has received a lot of attention in recent years, although the outcome is a complex with limited empirical studies. In our study we conducted in-depth interviews in six representative IT firms. The underlying assumption is that firms, which are able to reconfigure their resources and capabilities, in line with recognized opportunities and environmental change, can create and sustain a competitive advantage. We argue that firms with a stronger commitment to deploying dynamic capabilities are more successful, and vice versa. The results suggest that ignoring the deployment of a single dynamic capability can negatively affect the deployment of other dynamic capabilities since they are correlated and interwoven. Our paper is also considered to be important from practitioners' point of view. We believe the results will help managers to understand how dynamic capabilities work and will guide them in deploying capabilities in their own organizations.

Keywords: dynamic capabilities; competitive advantage; information technology (IT) industry; case study.

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1. INTRODUCTION

The dynamic capabilities view (DCV) has emerged as an attempt to untangle the complex problem of sustainable competitive advantage in today's dynamic environment (Eisenhardt & Martin, 2000; Teece, Pisano & Shuen, 1997). The underlying assumption is that firms, which are able to sense and then seize new opportunities and, further, reconfigure their resources and capabilities in line with recognized opportunities and environmental change can create and sustain a competitive advantage (Teece, 2012, 2009). Since the average period in which firms are able to sustain a competitive advantage has been decreasing over time (Wiggins & Ruefli, 2005), the issue of a sustained competitive advantage has become a critical concern of both academics and practitioners. Li and Liu's (2014) study of 217 firms shows that dynamic capabilities significantly positively affect competitive advantage, and that environmental dynamism is an important driver. Ambrosini and Bowman (2009) propose that fine-grained case studies of firms which have been able to sustain a competitive advantage over time in dynamic environments can offer some important guidelines on how to remain competitive in a world of intense competition.

The paper's main purpose is to recognize dynamic capabilities as a source of competitive advantage in IT firms. Our focus was: (1) to study relevant firm capabilities from a dynamic capabilities viewpoint, their sensing, seizing and reconfiguring capabilities; and (2) to investigate the level of deployment of each individual dynamic capability, and to link this to firm performance. In order to examine the relationships involved, in-depth interviews were conducted in six representative firms in the IT industry. Due to the IT industry's specific nature, IT firms represent a suitable context to create and validate our research model. IT industry is also considered as one of the most changing and demanding sectors in today's environment. This paper draws attention to the promising avenues and potential offered by the dynamic capabilities view that encourages further development. In addition, it provides an empirical contribution to the emerging work on dynamic capabilities through its detailed cross-case study investigation. Finally, it offers some important practical implications.

2. LITERATURE REVIEW

The publication written by Teece, Pisano and Shuen (1997) is recognized as the first seminal paper on the notion of dynamic capabilities. Evidently, the paper triggered a growing body of papers, namely more than 1,721 from 1997 to 2008 (Peteraf, DiStefano & Verona, 2013) in top management journals, and

over 1,900 citations by December 2009 (DiStefano, Peteraf & Verona, 2010). However, the field still remains mostly conceptual and largely focuses on foundation-level issues (Helfat & Peteraf, 2009). Extensive literature reviews in recent years (e.g. Zahra et al., 2006; Wang & Ahmed, 2007; Ambrosini & Bowman, 2009; Baretto, 2010; Peteraf, DiStefano and Verona, 2013) have not shown much progress as the field is still overflowing with a disconnected body of research. In addition, the DCV has received a lot of criticism (like other previous approaches such as the RBV) for being fuzzy and tautological (e.g. Winter, 2003) with little empirical support (Newbert, 2007; Ambrosini & Bowman, 2009). We propose that, if the DCV is useful as a field of study and, of course, for practitioners, then it needs to be fully researched, and should be expanded to other areas, such as the IS literature.

Based on the literature review, six (6) capabilities were recognized as relevant firm capabilities (see Figure 1), and were further analyzed from the dynamic capabilities perspective. (1) Managers' dominant role in developing dynamic capabilities has been widely recognized (Helfat & Martin, 2014; Augier & Teece, 2009; Rindova & Kotha, 2001; Teece, 2007), especially in reconfiguring the resource base (Ambrosini & Bowman, 2009; Harreld, O'Reilly & Tushman, 2007; Moliterno & Wiersema, 2007).

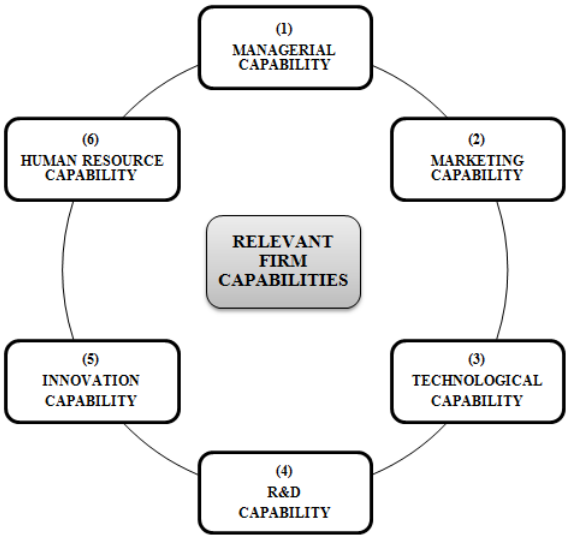

Figure 1. Relevant firm capabilities

(2) Marketing capability is an "enduring source" of competitive advantage (Kor & Mahoney, 2005: 494). Bruni and Verona (2009) presented the dynamic marketing capabilities as abilities of developing, releasing and integrating market knowledge to successfully address changes in the environment. Barrales-Molina, Martinez-Lopez and Gazques-Abad (2014) define marketing capability as a core element in determining the needs of customers, especially in the process of generating market knowledge. (3) Technological capability is closely linked with the R&D capability and it is a core capability of every firm in today's dynamic environment, especially for technological firms operating in the IT industry. (4) R&D capability is the ability to recognize and exploit knowledge. In general, it can be seen as a function of prior related knowledge. Accordingly, R&D capability generates innovation potential. (5) For technological firms, especially for firms in the IT industry, acquiring new knowledge and exploiting it through their resource base is a key factor of success (Verloop, 2004). Birchall and Tovstiga (2005) state that innovation capability is probably the most important capability a firm can have. To develop innovation capability through time, we must constantly search, scan, explore and implement new opportunities inside and outside the firm. (6) The last firm capability relevant to our study of the deployment of dynamic capabilities is human resource capability. Human resources have been recognized as one of the major sources of a competitive advantage (e.g. Barney & Clark, 2007) and human resource capability has become one of the most widely studied capabilities in the study of sources of competitive advantage (Newbert, 2007).

From an analytical perspective, dynamic capabilities can be disaggregated into three classes (1) sensing capability; (2) seizing capability; and (3) reconfiguring capability (Teece, 2007; 2009) (1) Sensing capability: in order to identify opportunities, firms need to continuously scan their environments and search for opportunities that are constantly opening up, inside and outside the firm's boundaries. Typical activities or practices that comprise sensing capability are activities of scanning for new inventors or exploring market needs, practices in the R&D process that enable the creation of new or improved knowledge, activities that result in understanding technological transformation, etc. (2) Seizing capability: when opportunities are sensed, they then need to be seized and their value and potential have to be recognized. Seizing capability means selecting the 'right' technology or recognizing the target customers. (3) Reconfiguring capability: when opportunities are sensed and seized, then they need to be reconfigured. Reconfiguring capability means the ability to recombine and reconfigure the resource base to address changes and opportunities in the firm's environment.

3. METHODOLOGY

3.1. Research method and focus

Due to the exploratory nature of the research, we have decided to adopt a qualitative methodology (Eisenhardt, 1989) and to choose a multiple case study approach as our research design (Yin, 2009). The use of qualitative analysis enables us to provide an in-depth understanding of how dynamic capabilities are deployed. Case study is the most appropriate method in the early phases of a new management theory and is especially considered a promising approach for research in strategic management. The literature on dynamic capabilities is currently imbued with conceptual and theoretical debates and little empirical testing. With our research, we are taking a step towards accumulating enough case-based data to understand dynamic capabilities as a source of competitive advantage. Additionally, case studies are chosen by means of theoretical rather than statistical sampling (Yin, 2009), and are usually carried out in close interaction with practitioners.

Our study focuses on the following key research question: "Are firms that renew their resource base in line with the dynamic capabilities view able to sustain a competitive advantage and thus the related firm performance?" Our assumption is that the more strongly dynamic capabilities are deployed, the more abilities/advantages a firm has in building and sustaining a competitive advantage, and this results in an improved firm performance. The relationship we have been applying in our study is: dynamic capabilities → competitive advantage → firm performance. To find out the levels, i.e. weak, moderate and strong levels of dynamic capabilities deployment, each capability has been investigated as a composition of sense, seize and reconfigure capabilities. The evaluation of each capability was made possible after we conducted the cross-case analysis. By comparing the results and reports of each case-study firm, we were able to distinguish between the deployments levels of capabilities.

3.2. Data sample

According to Eisenhardt (1989), there is no ideal number of cases, although a number between 4 and 10 seems to be the most ideal one. Since our research relies on a qualitative analysis, we carefully selected the case-study firms. Choosing the six case case-study firms seems to provide a corresponding sample for conducting cross-case analysis, especially in the process of searching for and identifying common patterns and differences in the deployment of dynamic capabilities between the cases. For the purpose of our study, we

selected six key performing SMEs in the Slovenian IT industry. The Slovenian IT industry is a very demanding and competitive environment, mainly controlled by multinational firms such as Microsoft, SAP, Oracle and others. The selection process of the six firms was based on six indicators: (1) the case-study firm is an SME; (2) the case-study firm has to have been active in the market for more than 10 years (the selected case-study firms should share the same historical issues, such as a transition process and globalization effects); (3) the case-study firm has to be established in the home country, be locally owned (the selected case-study firms have an independent capital structure, they are not business units of foreign, global firms); (4) the business orientation of the case-study firms must be comparable (namely, firms in the IT industry can offer a variety of products and services based on different strategic orientations; consequently, such diversity cannot support the comparison between cases); (5) the case-study firm has to be recognized as a relevant player in the market (their economic contribution and market share is relevant for the domestic market); and (6) the case-study firm has to be willing to participate.

3.3. Data collection

We collected empirical data through in-depth interviews. Data was collected in 2011 and 2012. We followed the steps and suggestions presented by Rouse and Daellenbach (1999) since their approach can be seen as giving guidance for studies of resource-based competitive advantage in a single industry. Primarily, we studied the strategic management process, sales and marketing process, human resource process and R&D process. Given that our research focus was a group of SMEs, the target respondents were principally the general managers of the case-study firms. The interviews were informal and narrative in nature, tape-recorded (with permission) and later transcribed. The interviews lasted around 60-90 minutes. We conducted 13 interviews in total. Later, in the process of analyzing the data, we also engaged in a number of telephone and internet communications to resolve some specifics and dilemmas that were not clarified in the earlier phases of research.

In order to minimize bias in qualitative research in general, we triangulated the data with other secondary sources on each case (data from financial and annual reports, a firm's internal documents, different publications, and data from public databases). It should be noted that one of the authors is an expert who has been working in the IT industry for several years already, and this has helped us to better understand the subject and, further, more profoundly conduct the research. Consistent with an inductive research approach, we moved back and forth among the literature. We used a coding process (Rubin & Rubin,

2005; Saldana, 2009) to code and categorize the data, as well as thematic networks (Stirling-Attride, 2001). We used NVIVO9 as qualitative analysis software to maintain the linkage between the interview transcripts, direct quotes and data gathered from the coding process.

3.4. Data analysis

To answer the main research question, we first analyze the deployment of relevant dynamic capabilities in each case-study firm and then we link the level of the deployment of dynamic capabilities with firm performance. Next, we conduct a cross-case analysis to identify the relationship between the level of deployment of dynamic capabilities and firm performance. As an indicator of a firm's performance we considered the average values of ten selected financial and six non-financial indicators for the last five business years. The combination of financial and non-financial indicators relevant to our research was selected in line with recommendations in the literature.

Our analysis process as a content analysis consists of three phases (modification of Yin's process (Yin, 2009): (1) individual case analysis and report; (2) a cross-case analysis and report; and (3) cross-case conclusions and implications for theory and practice. In all of the phases of the analysis, authors of this study were involved through individual findings and reports that were later checked and agreed on jointly. Since we mainly operated with diverse and unstructured data, we created a case-study database with which we were able to increase the reliability of our study. We considered ethical dilemmas that can arise in qualitative research and consequently we applied important ethical principles to our research.

4. RESULTS

In this section, we briefly introduce the case-study firms under the pseudonyms Omega, Sigma, Kappa, Lambda, Theta and Omicron. Then we present the main results of our study. Table 1 describes the case-study firms according to their outstanding results – positive and negative.

All six case-study firms have recognized the IT industry as being dynamic and highly dependent on technological development. Naturally, such conditions require constant and quick adaptions to the changing environment. Consequently, this can be achieved solely by continuously sensing, seizing opportunities inside and outside firm boundaries and, further, exploiting these opportunities through a recombination and reconfiguration of the resource base.

Table 1. Selected indicators and results among the case-study firms for the 2006–2011 period

Selected indicators and results	**Case-study firms**					
	Omega	**Sigma**	**Kappa**	**Lambda**	**Theta**	**Omicron**
Number of employees in 2011	110	55	74	70	63	140
Earnings in 2011	€11 million	€4 million	€6 million	€7 million	€4.5 million	€25 million
ROA (average value 2006-2011)*	33.78	9.73	**42.16**	4.7	4.66	*1.45*
ROE (average value 2006-2011)**	75.13	13.46	50.36	11.25	9.35	6.56
Average value added per employee (average value 2006-2011)***	€55,063	€51,054	**€69,952**	*€37,050*	€37,049	€50,361
Ratio: total revenues / total expenses (average value 2006-2011)*	1.19	1.14	**1.56**	1.04	1.02	*1.01*
Average salary income: average value 2006-2011****	€2,323	€2,522	**€2,670**	*€1,515*	€2,130	€2,614
Value of shareholders' funds to assets (average value 2006-2011)**	45.98	71.15	**85.40**	38.62	43.98	*18.51*
Sales growth, ROS: average value 2006-2011	Continuously increasing by 4% per year	Continuously increasing by 2% per year	Decreased by 5% in the last five years	Negative	Decreased: sales dropped by more than 30% (2008-2009)	Decreased: sales dropped by more than 20% (2009-2010)
Number ratio of new employment: average value 2006-2011	The highest ratio (+44% employees in	Continuously increasing	Increased by 70% (2006–2010)	Decreased by 22%	Negative	Increased by 60%

Selected indicators and results	**Case-study firms**					
	Omega	**Sigma**	**Kappa**	**Lambda**	**Theta**	**Omicron**
EBIT: average value 2006-2011	€1,152,925	€322,864	€1,457,394	€259,516 (decreasing)	€93,636 (decreasing: -70% in the 2008-2009	€196,072 (negative in 2010)
Employee turnover: 2006-2011	positive	positive	positive	negative	negative	negative
	High-performing case-study firms based on the results of the overall performance (financial and non-financial data)			**Low-performing case-study firms** based on the results of the overall performance (financial and non-financial data)		

* Bold indicates the highest value, italic the lowest.
** Bold indicates the highest average value, italic the lowest.
*** Bold indicates the highest value, italic the lowest (40% lower than the highest value).
**** Bold indicates the highest value, italic the lowest (below the industry average).

According to the high level of dynamism in IT in general, commitment to changes is incorporated in daily practices and making adjustments to accept novelties and risks is simply 'a must' in all the case-study firms. In addition, intuition plays an important part in their decision-making process. When considering the strategic orientation of the case-study firms, differentiation is a type of strategy that most of those firms follow. According to Porter (1985), a firm which can achieve and sustain differentiation will be an above-average performer in its industry. Three out of the six case-study firms, i.e. Omega, Sigma and Omicron, are differentiators. Their main focus is on constantly trying to find ways of differentiating themselves from their rivals. The fourth case-study firm, Kappa, seeks to differentiate itself in its target segment. This strategy orientation is known as a differentiation focus. The last two case-study firms, Lambda and Theta, try to engage themselves in all generic strategies, yet they fail to achieve any of them. Accordingly, their strategy can be viewed as a 'stuck in the middle' strategy.

Table 2 provides an overview of the development of dynamic capabilities in the case-study firms. All six case-study firms develop relevant capabilities as

dynamic capabilities. However, the levels of deployment of each capability between the case-study firms vary.

Table 2. An overview of the deployment of dynamic capabilities in the case-study firms

	Case-study firms					
Capabilities	**Omega**	**Sigma**	**Kappa**	**Lambda**	**Theta**	**Omicron**
Managerial capability						
(1) sensing	Strong	Strong	Strong	**moderate**	**moderate**	strong
(2) seizing	Strong	Strong	Strong	**moderate**	**moderate**	strong
(3) reconfiguring	Strong	Strong	Strong	strong	**WEAK**	**moderate**
Marketing capability						
(1) sensing	Strong	Strong	Strong	strong	strong	strong
(2) seizing	Strong	Strong	Strong	strong	**moderate**	strong
(3) reconfiguring	Strong	Strong	**moderate**	**moderate**	**WEAK**	**moderate**
Technological capability						
(1) sensing	Strong	Strong	Strong	strong	strong	strong
(2) seizing	Strong	Strong	Strong	strong	strong	strong
(3) reconfiguring	Strong	Strong	Strong	strong	**moderate**	strong
R&D capability						
(1) sensing	Strong	Strong	Strong	strong	strong	strong
(2) seizing	Strong	Strong	Strong	strong	strong	strong
(3) reconfiguring	Strong	Strong	Strong	**moderate**	**moderate**	strong
Innovation capability						
(1) sensing	Strong	Strong	Strong	strong	strong	strong
(2) seizing	Strong	Strong	Strong	strong	strong	strong
(3) reconfiguring	Strong	Strong	Strong	**moderate**	**moderate**	strong
Human resource capability						
(1) sensing	Strong	Strong	Strong	strong	strong	strong
(2) seizing	Strong	Strong	Strong	strong	**moderate**	strong
(3) reconfiguring	Strong	Strong	Strong	**moderate**	**WEAK**	**moderate**

The results show that Omega and Sigma have the strongest level of deployment with regard to all capabilities. Kappa has high deployment scores for each capability, except the managerial capability. Omicron is one of the more successful firms when considering its development of dynamic capabilities, although its marketing and human resource capabilities are less developed. The deployment levels of dynamic capabilities of the next two case-

study firms, Lambda and Theta are the weakest. Lambda has some capabilities at the strongest level and some at the moderate level of deployment, but its level of human resource capability is at the weakest level. The last firm, Theta, has the lowest scores of dynamic capabilities deployment among the case-study firms, particularly in reconfiguring its capability with managerial, human resource and marketing capabilities.

As shown in Table 2, each capability was disaggregated into three classes of capabilities: sensing, seizing and reconfiguring capabilities. Further, all of the disaggregated capabilities were evaluated through their level of deployment. Before being able to evaluate each capability, the cross-case analysis, i.e. a comparison of the results and reports of each case-study firm has been made. Cross-case analysis enabled us to distinguish the levels of deployment of capabilities. As we can see from Table 2, most of the capabilities are evaluated as strong, some as moderate and some as weak, for instance managerial capability. Managerial capability is in most cases at the strongest level (especially in firms Omega, Sigma and Kappa). In the process of data and findings comparison, we found that a strong evaluation of managerial capability is linked with established practices, such as: attractive and straightforward reward systems, fair and open communication at all firm's level, open-door policy, trust-based relationships between employees and management etc.

We have recognized that managers in the case-study firms with the strongest level of managerial capability are able to identify their strengths and weaknesses and constantly improve them. Additionally, they are more people-focused than task-focused, so the recognition of high-potential employees and exploitation of their knowledge and capabilities is one of their main activities. On the other hand, a weak evaluation is linked to so called "bad" practices, e.g. managers do not identify their lack of knowledge and other weaknesses. Further, the obvious “bad” practices are also: lack of communication in the workplace, low job satisfaction, negative employee turnover rates, poorly defined strategy as well as a slow decision-making process. We can suggest that such practices have a negative effect when considering the levels of development and deployment of dynamic capabilities. And finally, some capabilities within managerial capability are at the moderate level. For instance, Omicron recognized the need to proceed with the reorganization process and to finally implement some changes in their human resource capability, but this process was only partly completed.

The results of the cross-case analysis between the levels of deployment and firm performance permitted us to distinguish high-performing and low-

performing firms. Further, they allowed us to link overall performance results with the deployment of dynamic capabilities by each case-study firm. Performance was assessed through the case-study firms' financial and non-financial data. Evidently, firms with an overall weak performance are less successful at developing their dynamic capabilities, and vice versa. For instance, the firm Sigma, which is a good performer, has all its capabilities at the highest level. On the other hand, Theta, which we had recognized as a bad performer, has difficulties deploying its dynamic capabilities. Namely, the level of its deployment of dynamic capabilities is at a moderate level. Moreover, some of the capabilities, especially reconfiguring ones, are not developed at all.

Table 3. presents some examples of indicating the deployment and development of dynamic capabilities in the case-study firms.

Table 3. Examples indicating the development of dynamic capabilities

A component of dynamic capability	Examples indicating the development of dynamic capabilities
Sensing capability	"Let the competition explore new things, we will use and exploit what is already known." (Sales manager, Omega) "Friday's internal tea/coffee party – a great way to get information you need." (General manager, Sigma)
Seizing capability	"If a competitor shows you the solution but you don't know what to do with it, what's the point?" (General manager, Lambda) "When we recruit, we don't recruit the best on the market but what is the best for our firm." (General manager, Kappa)
Reconfiguring capability	"When you reward people, the reward has to be employee-oriented." (General manager, Omega) "Innovations really do just happen." (General manager, Sigma)

Let us explain some of the examples presented in Table 3. In the context of marketing capability deployment, sales manager from the case-study firm Omega commented: *"Let the competition explore new things, we will use and exploit what is already known."* The main activities comprising sensing capability in firm Omega are gathering information about what is going on in

the environment and exploring competitors' activities and practices. Their main focus is to sense what their primary competitors develop and invest in, and later in this process, try to identify how this gathered information can be used in their deployment of capabilities. They are not trying to imitate but to exploit and diffuse recognized ideas into their own processes, systems, products and services.

In the context of deploying human resource capability, Kappa's general manager explained: *"When we recruit, we don't recruit the best on the market but what is the best for our firm."* Seizing capability is not about recognizing who is the best on the market or the most recommended among recruiters. The main goal is to recognize which candidate is the most appropriate to succeed in their internal environment, and be able to fit in and contribute to the work culture. Such perspective is much more pretentious (and in line with dynamic capabilities view) than just picking the first candidate on the list.

The third class of dynamic capability, reconfiguring capability, typically involves large commitments of resources and redeployment as an important element of successful dynamic capabilities deployment. Usually, redeployment involves business model redesign. As we have seen from our research findings, Omega has all of its capabilities at the highest level. General manager in Omega noted: *"When you reward people, the reward has to be employee-oriented."* This is a clear evidence of how managers think and understand the ongoing process of continuous adaptation to the internal and external environment. They have established an attractive and transparent reward system where every employee's role, tasks, responsibilities and metrics are clearly defined. Evidently, managers at all levels in the firm Omega have taken an active role in deploying dynamic capabilities by all three capabilities, especially by reconfiguring capability.

5. DISCUSSION AND IMPLICATIONS

Our research findings demonstrate that we have to deploy and develop all relevant dynamic capabilities. Disregarding the development of one of them can have a negative impact on other dynamic capabilities since they are interdependent and interwoven. For instance, if we recognized a unique marketing opportunity and established a strategy for developing this marketing opportunity, we would make an important step in recognizing and exploiting opportunities before our competition. But doing that would not be enough. This strategy will not be successful if we do not simultaneously adapt and exploit other dynamic capabilities. Namely, it can easily happen that we develop a

product and set all the marketing activities but the market and customers are not yet prepared.

We found such an example in one of the case-study firms where an innovative product the firm had introduced was too advanced for the market at that point of time. A major consequence for this case-study firm was a negative impact on firm's performance. Accordingly, our findings are in line with the suggestion of Zahra, Sapienza and Davidsson (2006), who noted that deploying dynamic capabilities under the wrong cause-effect assumptions can have a negative impact on firm's performance.

Another example has been recognized in another case-study firm. This firm developed a prototype, a new technology software. To be able to commercialize it through their business model, they have to redesign their existing business model and promote this new technology inside and outside firm's environment. Regardless of how strong intentions were to perform these activities, they failed. Their managerial and human resource capability levels were not in harmony with the technological, innovation and marketing capability. Our investigation revealed that unsuccessful leadership and lack of specialization were the main reasons for this case.

The necessity of adopting new technology and redesigning business model were sensed and recognized but the abilities to exploit it and manage the specialization were not there. An answer to the question "How to sustain competitiveness" in the IT industry can be seemingly straightforward: firms should renew their resource base upon dynamic capabilities approach. However, as we have seen, little things matters. If a manager's perceptions of one particular situation are wrong this will trigger the wrong dynamic capabilities and the consequences could be fatal for a firm.

Table 4 provides some practical implications for developing dynamic capability. As illustrated in Table 4, we have recognized good and bad practices. We understand good practices as practices with positive effect on dynamic capabilities deployment that can help practitioners exploit firm's resource base in line with the dynamic capabilities perspective. On the other hand, we have recognized bad practices as practices with negative effect on dynamic capabilities deployment that practitioners have to avoid and/or minimise since they represent rigidity in the process of dynamic capabilities development and deployment.

Table 4. Some practical implications for developing dynamic capabilities

Practices with positive effect on dynamic capabilities deployment	Practices with negative effect on dynamic capabilities deployment
• Every employee's role, tasks, responsibilities and metrics are clearly defined. • Mentorship/coaching at all levels and areas within the firm (for new employees, during innovation activities and projects, in training activities and through a learning model). • Building the perfect/best team. • Attractive, simple and straightforward reward systems (no need to be transparent). • Managers are able to identify high-potential employees and exploit their knowledge and capabilities. • Promoting networking, having a special networking team. • Fair and open communication • inside and outside the firm's boundaries • Open-door policy. • Trust-based relationships between employees and management.	• Managers do not recognize the potential/value of employees, i.e. talents and stars, and accordingly they do not develop their capabilities • Managers do not recognize/identify their weaknesses, there is a lack of competence in managing. • Managers do not favor changes and do not initiate them. They are obviously afraid of being unable to deal with changes/move away from the status quo • Employees do not perceive the reward system as being fair and transparent. • Managers do not identify their weaknesses and lack of knowledge. Therefore, they are unable to improve and build the 'right' capabilities. • Unfocused networking; the level of networking and the importance of networking are too low. • A lack of open communication and delivering the right message at the right time. Avoiding/putting off (unpleasant) tasks and responsibilities.

We have learnt from this study that everything changes. Therefore, it is necessary that we constantly scan and exploit new ideas and opportunities in the environment. It is known that opportunities are all around us, yet our competition may not have recognized them. It can also happen that an opportunity can be easily recognized but it might require a lot of effort and resources in the reconfiguration process. We believe that the presented practices

from Table 4 can provide a starting point for managers and other practitioners to think about how to use and implement these practices in their practice.

6. CONCLUSION

The results show that firms which deploy relevant capabilities as dynamic capabilities hold the potential for a sustained competitive advantage, especially in a turbulent environment such as the IT industry. In addition, we found that firms with a stronger commitment to deploying dynamic capabilities are more successful, and vice versa. The results suggest that firms need to continuously deploy all firm-relevant capabilities in line with the dynamic capabilities view. Ignoring the deployment of a single dynamic capability can negatively affect the deployment of other dynamic capabilities since they are correlated and interwoven.

The dynamic capabilities view currently offers many challenges for scholars. Still, a few potential limitations of our study have to be addressed. This is an explorative, qualitative study based on a sample of six representative firms in the IT industry. The findings are not intended to be generalized to a population or other contexts but to offer empirical insights that extend the theoretical and empirical framework of the dynamic capabilities approach. Our investigation of dynamic capabilities view based on a pragmatic approach, that enable us to present findings and practices in a way that managers would understand and implement them.

Follow-up studies could focus on a deeper investigation of each dynamic capability, especially on the paths and positions affecting the development of dynamic capabilities. A longitudinal research would also be valuable since the results of deploying and developing dynamic capabilities usually cannot be seen in the short term. The same or a similar study could also be conducted in other industries. A cross-industry analysis could reveal commonalities and diversities in deploying dynamic capabilities across industries. Future studies exploring the dynamic capabilities field should involve other qualitative approaches such as focus groups or observation methods. In addition, a research framework that enables quantitative empirical testing would also be a step forward.

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DINAMIČKE SPOSOBNOSTI I KONKURENTSKA PREDNOST: REZULTATI ANALIZE STUDIJA SLUČAJA

Sažetak

U ovom se radu naglašava značaj perspektive dinamičkih sposobnosti kao područja istraživanja današnjeg dinamičnog okruženja. Koncept dinamičkih sposobnosti je privukao veliku pozornost u posljednje vrijeme, iako su njegovi rezultati složeni, a broj studija koji se njima bave ograničen. Ovaj se rad temelji na šest dubinskih intervjua s predstavnicima poduzeća koja se bave informacijskom tehnologijom. Pritom se pretpostavlja da su poduzeća, koja su sposobna rekonfigurirati svoje resurse i sposobnosti u skladu s percipiranim prilikama i promjenama u okruženju, mogu stvoriti te održati konkurentsku prednost. Iznosi se argument da su poduzeća, snažnije posvećena provedbi dinamičnih sposobnosti, ujedno i uspješnija (te obrnuto). Rezultati istraživanja sugeriraju da ignoriranje provedbe čak i jedne dinamičke sposobnosti može negativno djelovati na provedbu ostalih, s obzirom na korelaciju i isprepletenost istih. Smatra se da je rad značajan i s gledišta poslovne prakse te da će rezultati istraživanja biti korisni menadžerima u razumijevanju djelovanja dinamičkih kompetencija i njihove provedbe u vlastitoj organizaciji.