CO-EVOLUTION OF DYNAMIC CAPABILITIES AND VALUE PROPOSITIONS FROM A PROCESS PERSPECTIVE

Tapio Riihimäki  
*Corresponding Author  
Turku School of Economics, University of Turku, Finland  
tapio.riihimaki@utu.fi

Valtteri Kaartemo*  
Turku School of Economics, University of Turku, Finland  
valtteri.kaartemo@utu.fi

Peter Zettinig  
Turku School of Economics, University of Turku, Finland  
peter.zettinig@utu.fi

Abstract

Managers need to be able to identify and develop their organization’s dynamic capabilities for value creation opportunities. Although earlier dynamic capabilities literature has highlighted the importance of market creation, it has not examined dynamic capabilities and value propositions development process. Utilizing a modified steering wheel tool and a longitudinal case of a multinational enterprise (MNE) in ship building industry, we mapped the joint development of dynamic capabilities and value propositions. Our analysis revealed the developments to be accumulative and path-dependent. With this study we contribute to dynamic capabilities, MNE, and process research. Furthermore, we unearth critical events and paths for managers guiding their companies through the service business development process in our ever-globalizing world.

Key Words

Value propositions; dynamic capabilities; process; multinational companies.

*Corresponding Author
INTRODUCTION

A European-based global ship building company, founded over a hundred years ago has weathered and adapted to multiple industry changes. Already in the 1980s, this multinational enterprise (MNE) outsourced most of their production — first to cheaper labour cost countries in Europe and then later to China. More recently, the global economic downturn after the 2008 financial crisis created challenges for all the players involved in the industry. Instead of merely waiting for the global economy to recover, the company began to experiment in February 2013 with a solutions approach. Stunningly, half a year later they had signed their first 100 million euro deal. The success story made us interested in the questions that aim at looking beneath the surface: What capabilities enabled the company to provide a value proposition so different from their traditional product offerings? How did the company’s dynamic capabilities and value propositions develop over time to reach a culmination in a solutions offering? The aim of the study is to increase understanding on how dynamic capabilities and value propositions coevolve.

Langley and Tsoukas (2010) noted that even if one knows that a certain organizational practice is more effective than another, this knowledge rarely reveals how one should adopt the better practice over time. Developing dynamic capabilities in order to provide better value propositions to customers provides such a challenge to many managers. The extant literature has explored capability development from various perspectives such as bargaining power (Coff, 2010), innovation (Agarwal & Selen, 2009; Lawson & Samson, 2001; O’Connor, 2008), internationalization (Prange & Verdier, 2011), IT infrastructure (Bhatt et al., 2010), managerial perspective (Ludwig & Pemberton, 2011), and process management (Benner & Tushman, 2003). Furthermore, the exploration has taken place in variety of company contexts: start-ups (Autio et al., 2011), SMEs (Branzei & Vertinsky, 2006; Mohannak, 2007), MNEs (Augier & Teece, 2007; Luo, 2002), emerging economies (Ludwig & Pemberton, 2011; Zhou & Li, 2010), and transition economies (Uhlenbruck et al., 2003).

What has been lacking though is examination of dynamic capabilities development from process perspective. Dynamic capability literature has been hampered due to little practical evidence for its propositions and poor understanding of specific processes within dynamic capability development (Ludwig & Pemberton, 2011; Schreyögg & Kliesch-Eberl, 2007). Furthermore, only few studies have examined dynamic capability literature in the context of MNEs (Pitelis & Teece, 2010) and service business development (Fischer et al., 2010). Providing compelling value propositions is of critical importance to MNEs, because they often have to create new markets (Teece, 2014). Thus, “an MNE’s dynamic capabilities must be more amplified and leveraged than those of a firm with a less ambitious, purely domestic, focus” (Teece, 2014, p.29).

Pitelies amd Teeco (2010, p. 1248) highlighted that MNE literature would benefit from expanded economic lens in which “MNEs exist because of the desire by their principals (entrepreneurs) to create and capture value through
the establishment and design of organizations that help co-create cross-border markets, shape eco-systems, and leverage capabilities”. More recently, dynamic capabilities-based theory of MNE has been discussed (Cantwell, 2014; Teece, 2014). In a similar manner, servitization has gained widely recognition over the last few decades, in particular as a way to maintain revenue streams and improve profitability (Baines et al., 2009). The servitization term was first coined by Vandermerwe and Rada (1988), but has since evolved to be understood as “the innovation of an organisation’s capabilities and processes to shift from selling products to selling integrated products and services that deliver value in use” (Baines et al., 2009, p. 563).

In order to explore our phenomena of interest, we also adopt new methodological approaches from process research and hope along the way to further the dynamic capabilities research methods. This is also beneficial for the process research perspective as an increasing number of management scholars are conducting process research, but the number of process studies published in premier management journals has been lacking (Langley et al., 2013). We modify a novel approach developed by Halinen et al. (2013) from network process research, a steering wheel tool, and utilize it to analyse dynamic capability and value proposition development. Therefore, besides academic contribution to dynamic capabilities, MNE and process research fields, we hope to aid managers in navigating from traditional product-based business to service-based business in MNE context by expanding knowledge about the co-evolution of dynamic capabilities and value propositions necessary for business transformation.

In what follows, we first examine the theoretical foundation of dynamic capabilities and process research. We also identify a definition of value proposition for the context of this study. Next, we articulate the research methods chosen for event identification. Finally, we analyse the findings from the case study and discuss managerial and future research implications.

**THEORETICAL BACKGROUND**

Organizational resources and their management was identified as an important factor influencing firm growth already in 1959 by Penrose. Wernerfelt (1984) coined the term resource-based view (RBV) and emphasized the importance of focusing on firms’ resources instead of their products. Barney (1991) presented the core tenets of RBV and defined the characteristics that make a resource to be a potential source of competitive advantage. Furthermore, RBV gained further prominence in 1991 through Journal of Management’s special research forum, which helped to define “resources and capabilities as bundles of tangible and intangible assets, including a firm’s management skills, its organizational processes and routines, and the information and knowledge it controls that can be used by firms to help choose and implement strategies” (Barney et al., 2011, p. 1300). Amit and Schoemaker (1993) further clarified the division of the overall construct of strategic assets into resources and capabilities.
Building on RBV, Teece et al. (1997) introduced dynamic capabilities framework in which assets, processes, and evolutionary paths are used to explain competitive advantage. Dynamic capabilities were defined as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al., 1997, p. 516). However, the line between dynamic and operational capabilities is often unclear and thus Helfat and Winter (2011) recommended recognizing capabilities that promote economically significant change as dynamic, even though the speed of change might appear slow. The framework is extremely relevant in our context of MNE business transformation as it highlights the importance of “identifying new opportunities and organizing effectively and efficiently to embrace them” (Teece et al., 1997, p. 509). Thus, “the microfoundations of dynamic capabilities — the distinct skills, processes, procedures, organizational structures, decision rules, and disciplines — which undergrid enterprise-level sensing, seizing, and reconfiguring capacities” are essential for managers developing new value propositions (Teece, 2007, p. 1319).

The original context of dynamic capability framework, environment of rapid technological change, has expanded to cover more and more different sectors of the economy. This development has been propagated by “rapid innovation, globalization, and deregulation” (Augier & Teece, 2007, p. 185). One example of this are born global firms that engage in international business at a very early stage in their development (Weerawardena et al., 2007). On the other hand, dynamic capabilities hold implications also in more traditional industries such as ship building. Although the business has been described by the industry people as “slow-moving” and “conservative”, they also acknowledged that companies embracing the quickening pace of technology development position themselves for realizing competitive advantages and ensuring their company’s survival.

In order to learn more about capability development, the study of individual corporate histories as a fruitful approach for understanding the origins of capabilities (Nelson & Winter, 2009; Teece, 2012). Furthermore, dynamic capabilities framework’s focus on path dependencies — firms’ past investments and routines affecting its future behaviour — impel us to pay attention to how and why things develop over time. Although capability development is time-dependent, it does not necessarily produce immediate effects (Wang & Ahmed, 2007). However, once enterprises develop strong dynamic capabilities, they do not only adapt to business ecosystems, but also shape them (Pitelis & Teece, 2010; Teece, 2007).

A major way through which companies interact with the ecosystem is their value propositions. Value (Sánchez-Fernández & Iniesta-Bonillo, 2007; Woodall, 2003) and value propositions (Frow et al., 2014) have been elusive concepts and often not defined clearly. Only recently have value propositions conceptualizations evolved from earlier value delivery and value exchange contexts to the ecosystem context (cf. Frow et al., 2014). Furthermore, value co-creation has emerged as a central focus in which for example suppliers and customers create value jointly (Prahalad & Ramaswamy, 2004, 2013). However, as in this paper the case firm serves as the focal point, a general
level value proposition definition according to Chandler and Lusch (2014, p. 3) as “invitations from actors to one another to engage in service” suffices. More specifically, these invitations are viewed as service providers’ offerings of facilitating the creation of potential value-in-use. Thus, “the service provider facilitates (e.g., produces and delivers) the customer’s value creation with resources/processes that are used and experienced in the customer sphere” (Grönroos & Voima, 2013, p. 143).

The value-in-use in the customer sphere can provide a combination of economic, financial, or social value for the customer (Chandler & Lusch, 2014). In addition, earlier Rintamäki et al. (2007) identified the key dimensions of customer value as economic, functional, emotional, and symbolic. In their framework, firms’ value propositions should be built on competencies and resources that can be utilized more effectively than the competitors, create differentiation, and result in competitive advantage (Rintamäki et al., 2007). This enables firms to create compelling value proposals that are more likely to be selected by customers amongst the multiple competing propositions.

METHODOLOGY

Exploring dynamic capability development from temporal perspective in order to understand how dynamic capabilities and value propositions impel or inhibit each other’s evolution over time requires empirically a novel approach. Process studies emphasize the centrality of time and incorporate “temporal progression of activities as elements of explanation and understanding” (Langley et al., 2013, p. 1). We adapted the steering wheel tool developed by Halinen et al. (2013) as it allows managers to unearth critical events and manage continuous change. However, we modified it so that it enables managers to follow event trajectories and from them to retrospectively analyse the development of dynamic capabilities and value propositions.

Philosophical foundation of the event-based analysis approach used on the steering wheel tool highlights “network processes as the focal phenomenon, managers’ sensemaking as the epistemological access point to process, and moderate constructionism as the ontological perspective on social reality” (Halinen et al., 2013, p. 1215). While we adhered to the rest of the points, our focal point was replaced by dynamic capability and value proposition processes. This allowed us to keep the process focus at the company level. However, the network aspect was not completely neglected since the event analysis included events on the network level impacting dynamic capabilities and value propositions development. Furthermore, the nature of value propositions was always exhibited and analysed in network context.

The steering wheel tool developed by Halinen et al. (2013, p.1214) perceives “processes as comprising sequences of connected events and activities that unfold over time in and around networks”. In particular, in process analysis events enable creating a narrative and formulating a case
analysis (Makkonen et al., 2012). Furthermore, events act as checkpoints as they can delimit the investigation period, define starting points of change processes and simply make change visible (cf. Halinen et al., 2013). As an example, events can occur at company level (e.g. changes in organizational structure, personnel, strategy), dyad level (e.g. closing long term contract and acquiring or replacing a partner) and network level (e.g. changes in industry or business environment due to recession or technological transition) (cf. Halinen et al., 2013).

Longitudinal data for this study was obtained with mixed methods combining company archival data, interviews, and focus group interviews. The mixed qualitative data gathering was selected for the research in order to have rich, multi-perspective data. For example, archival data is suited for tracing event chronologies over long periods, while interviews provide more in depth information about contemporary processes (Langley et al., 2013). Triangulation was employed in order to ensure that multiple perspectives were gathered from the interviews. Furthermore, we were able to acquire interactional expertise before our interactions with the case company as we were assisted in the data collection by a fellow researcher with several years of industry experience (Collins, 2004; Langley et al., 2013).

Qualitative methods of analysis were employed with a focal firm perspective on dynamic capability and value proposition development. The key units of analysis included the case company history, development of its business offerings, key competitive advantages and their perceived origins. First we gathered information about what events managers identified as critical for the company development and why. We followed Weick’s (1995) view that sensemaking involves retrospective and prospective thinking in order to discern an interpretation of reality. Then we utilized iteratively retrospective analysis to evaluate the events and created an analytical description of the process. This is similar to narrative as it has been seen as interchangeable with sensemaking and also as means to capture the outcome of collective sensemaking (cf. Sonenshein, 2010). The identified events and analytical description were then reviewed to map the development pathways over time.

**ANALYSIS**

Iterative, retrospective analysis of individuals’ accounts and company material revealed shared perceptions about critical events, company’s capabilities, and the nature of their offerings. The factors emphasized by multiple sources were highlighted and utilized to construct an overview of the development pathway shown in Figure 1.

**Figure 1:** Overview of case company’s dynamic capabilities and value propositions development from 1980s to 2013
Overall, we identified a general trend on value propositions developing towards more service-based approach over time. Similarly, the data revealed development in perceived competences and capabilities that enabled and propelled this evolution. The critical events identified since 1980s included mostly internal changes, although few industry changes played part, too. The most often emphasized factor across company archival materials and individual accounts was mergers and acquisitions (M&A) activity over the years. Similarly to Jemison and Sitkin (1986), company managers acknowledged the process nature of the M&A activity and post-merger integration. Thus, even though all the acquisitions were performed for good reasons, the envisioned synergy realization did not always occur.

Out of the external factors affecting the company and industry, the 2008 financial crisis and the following economic downturn was identified as the most common critical event. It marked a turning point from previous years in terms of company’s value proposition and dynamic capabilities development focus. Although external events provided more convenient temporal reference point, it is important to notice that all the identified factors were perceived as processes and thus had very vaguely defined start and end points that depended largely on individual perceptions and frames of reference. For example, the length of the employment at the case company affected individuals’ viewpoints. In addition, the temporal continuum was emphasized as particular events and dynamic capabilities were felt to have affected the company’s pathway and thus still influencing the company’s activities today.

Event analysis revealed that the earliest critical event, the acquisition completed in the 1980s, was perceived by most sources as an extremely significant event and still affecting the company today. For example, a manager mentioned how still today, 4 decades later, they are trying to “copy this [acquired company’s] business model, without own production, good customer relationships…” In addition, the significance of post-merger integration was highlighted as this was one of the rare occasions, when the acquired company’s leadership took many of the key positions in the merged company, regardless that they came from a much smaller company. Furthermore, the acquired company had had a very global mindset to the
extent that the leadership was described to having planned to conquer the world. Thus, there was focus and vision that infused into the case company’s organizational culture, though this was at times perceived as “our way or the highway” attitude. Although Monin et al. (2013) have highlighted the need for careful attention that should be given in post-merger integration to distributive justice, many interviewed individuals perceived benefits arising in this case from the unequal leadership position distribution.

For dynamic capability development, the acquisition provided a great opportunity for organizational learning as discussed by Vermeulen and Barkema (2001) and thus enhanced the viability of the over 10 mergers and acquisitions completed in the following years. Besides the earlier discussed culture and mindset changes that affected managers, the processes developed for integration provided experience and knowledge for carrying out other organizational changes. An example of such measure was transitioning from geographically based product offerings into common product centres that focused on particular products across all sales regions. The product focus was strong throughout the 1980s and the value propositions consisted of the company mainly describing what the products do, what the product specifications are, and utilizing the company’s good reputation as an asset in sales situations.

Second critical event took place as the company outsourced their production. This happened quite early on and in fact the company was described to be among the first ones in the industry to outsource their production. The outsourcing led the company first to cheaper production cost countries in Europe and later, as globalization took hold, to China. To a large extent, it was seen necessary due to external factors affecting ship building such as labour costs, government subsidies and other benefits for the industry varying from country to country. Though at the time a difficult measure, it helped the company not to become prisoners of their own deeply ingrained assumptions (Henderson, 1994). One such assumption that was commented on by the managers was the belief that they were in product business. Discontinuing production allowed the company to develop more freely a service approach later. Furthermore, the organizational focus was forced to move from factories to customers. A manager emphasized the importance of the event as “it actually cut the chains… they [the case company] followed the customer, not their own internal factory requirements”.

In addition, closing production forced the company to face the reality that continuing the business in the old ways was neither sustainable nor always even possible. Thus, managers developed dynamic capabilities for sensing change and then reorganizing assets for a new business alignment. Furthermore, it allowed the firm to begin building offshoring capability (Doh, 2005). Also, the event helped the company to jumpstart the development of service offerings that became soon to dominate the company’s market growth.

The timing of outsourcing was highlighted with the focus on cost-effectiveness in the value propositions. Moving manufacturing to cheaper production cost countries, allowed the company to continue offering
reputable products at a better price-point. However, the cost-effectiveness was still seen more as feature of the product. Thus, it was company-centric and did not place the customer into a more central role. Secondly, the nature of the value propositions evolved as without the firm’s own production it became much more imperative to complement the product offerings with services. Thus, the company added value by adding services and this in turn raised questions about what is their core business and what are the businesses they should be in (Vandermerwe & Rada, 1988). Example of a potential mindset influence observed was that later M&A activity expanded the company’s value propositions by widening the company’s product portfolio.

The dwindling demand due to the 2008 financial crisis and following economic downturn, the third critical event, forced the company to further develop their value propositions. In the boom years, the focus had been to keep up production with the demand and now suddenly the company was challenged to provide more compelling value propositions in order to maintain the demand in difficult market conditions. The case company turned to examine various avenues of improving customer productivity. This drastic change and development of the value proposition was aided by the managers’ mindsets that acknowledged business maturity due to the earlier outsourcing experiences. The managers described the case company actually privileged in comparison to many other players in the industry as they operated on the customers’ revenue side. This meant that their offerings generated direct impacts on the bottom line and therefore it was easier to approach customers and discuss how their revenue generation could be improved. Detailed knowledge directly from the customers as discussed by Nonaka and Toyama (2007) was required on customers’ value chains in order to map the needs for better value propositions. This enabled the value propositions to provide functional value in addition to economic value (Rintamäki et al., 2007).

The value proposition development was aided by the multiple M&A activities that had complemented the company offerings portfolio and thus allowed them to offer a full range of products and services. The case company’s significance and ability to serve customers for more of their needs, further incentivized customers to enter closer collaboration. Furthermore, the knowledge gathered from the various product and service areas allowed for more in depth analysis of customers’ productivity. Thus, to a large extent, the case company reaching this stage in the evolution of dynamic capabilities and value propositions was path dependent.

Similarly, the fourth critical event, the formation of the solutions unit, was enabled by all the previous steps. As Teece (2007) noted, the case company had many opportunities over its history to learn from the process of trial, feedback, and evaluation in order to develop solutions approach. In particular, the focus on customers’ productivity had led to greater integration with customers and development of dynamic capabilities suited for sensing the ecosystem. This was perceived extremely beneficial since moving from offering products and services into jointly co-creating and co-developing solutions with customers required intrinsic knowledge about the customers’
operations and how their revenue generation operated. However, historical roots were also acknowledged as a manager commented on how “we [the case company] have to be still competitive with traditional product business” as it was seen essential for the solution value proposition. Thus, each of the individual components in the solution offering had to be competitive and cost-efficient in a similar fashion to earlier times instead of simply relying on the synergies created by the offering. This was seen essential for maintaining the company reputation and validating the value of their offering.

In addition, managers identified entrepreneurial capital as of critical importance for the solution unit’s success. Teece (2012, p. 1395) suggested entrepreneurial manager’s role to include also “transforming the enterprise and shaping the ecosystem through sui generis strategic acts that neither stem from routines (or algorithms) nor need give rise to new routines”. The interviews revealed that certain managers were indeed believed to hold such entrepreneurial capital and thus seen to propagate the change within the organization and the whole ecosystem.

The formation of solutions unit also ushered further evolution of dynamic capabilities and value propositions. Dynamic capabilities development focused on sensing, creating processes to identify and map out the ecosystem structure, in order to provide better value offerings for the existing customers and potentially to develop whole new customer segments. In fact, managers emphasized the importance of developing processes for gathering detailed information about the whole ecosystem in order to create value propositions for the future. Moreover, as discussed by Helfat and Winter (2011), the case company gained the opportunity to influence more effectively the ecosystem to its advantage and developed dynamic capability for market access. Thus, the dynamic capabilities developed could evolve in the future towards integrative capabilities aimed at the ecosystem and its stakeholders.

On the value propositions side, the focus began to include realized customer value verification. This required more relational interacting and for example benchmarking the company solutions to competitors’ offerings. However, this was perceived to further reinforce some of the company’s older assets such as reputational assets. Employing verification as part of the value proposition in sales situation improved the company’s reliability in the eyes of customers and provided additional assistance for customers in evaluating their capital expenditure. For the company, this allowed them to gather even greater amount of knowledge about the customers’ operations and thus improve their future value propositions.

CONCLUSION

This study responded to the needs of managers who are identifying and developing their organization’s dynamic capabilities for value creation opportunities. In particular, managers tasked with service business development have now an illustration of an MNE, a global ship building company, over three decades through the lens of dynamic capability
development. Furthermore, we contributed to empirical dynamic capability literature in MNE context with a novel process approach modified from Halinen et al. (2013).

The findings include that the dynamic capabilities and value creation opportunities co-evolve with each advancement providing new business prospects as well as resource alignment challenges. The case company’s critical events included their acquisition in early 1980s that developed processes to support later M&A activities and early outsourcing of production enabling greater focus on value added services. Furthermore, later acquisitions offered opportunities to reconfigure resources and capabilities. In addition, industry demand decline and formation of solutions unit ushered the development of mindsets centred on improving customer productivity and verification of customer value respectively. We found the developments to be accumulative and thus path-dependent. Earlier developed capabilities supported later enterprise-level sensing, seizing, and reconfiguring capacities (Teece, 2007). Similarly, earlier developed value propositions provided essential knowledge required for evolving the value propositions more customer centred. This culminated in solutions offering that included verification of the delivered value to the customers.

Our case company’s story supports dynamic capabilities relevance in MNE analysis. As dynamic capabilities-based theory of MNE is being developed (Teece, 2014), current managers can already now benefit from examining their companies event trajectories and capability development over time. The observed path dependency provides entrepreneurial managers (Teece, 2012) critical knowledge about the current direction and potential future direction of their dynamic capability and value proposition development.

Moreover, dynamic capabilities and MNE literature can benefit greatly from multidisciplinary approaches (Cantwell, 2014). We urge future researchers in the spirit of Langley and Tsoukas (2010) to examine how better practices can be adopted over time. Event-based analysis and process research tools provide a promising approach to scrutinize dynamic capabilities development. Our study alone opened multiple directions for future research. Employing the steering wheel tool by Halinen et al. (2013) in its original format, with network processes as the focal phenomenon, would allow mapping the development of value propositions in dynamic network context. This would provide examination of the process at a more complex and detailed level. In particular, performing data collection and analysis in real-time could provide richer picture of the organizational sensemaking. Furthermore, the steering wheel tool would allow evaluating the value propositions from the perspective of network power and shaping the ecosystem.

In addition, the microfoundations of dynamic capabilities at the level of managers deserve further examination. Our analysis revealed that the case company had entrepreneurial managers who had a critical role in transforming and shaping the ecosystem (Teece, 2012). Thus, examining the current and past managers’ managerial cognitive capabilities in terms of sensing (perception and attention), seizing (problem-solving and reasoning), and reconfiguring (language and communication and social cognition) as
proposed by Helfat and Peteraf (2014) could provide insights into how MNEs build competitive advantages at the micro level. Similarly, Coff (2010) suggested examining how stakeholders plan rent appropriation as new capabilities are developed. All these could provide additional insights to the MNEs’ co-evolution of dynamic capabilities and value propositions.

Acknowledgments

This study is part of the research program REBUS, which is one of the research programmes of the Finnish Metals and Engineering Competence Cluster, FIMECC. REBUS is funded by the Finnish Funding Agency for Technology and Innovation (Tekes).

REFERENCES


