The development of dynamic capabilities through organisational and managerial processes

Dawn A. Harris* and Frederick Kaefer

School of Business Administration,
Loyola University Chicago,
820 N. Michigan Avenue, Chicago, IL 60611, USA
Fax: (1)-312-915-6988
E-mail: dharri1@luc.edu
E-mail: fkaefer@luc.edu
*Corresponding author

Linda M. Salchenberger

College of Business Administration,
Marquette University,
101C Straz Hall, Milwaukee, WI 53201, USA
Fax: (1)-414-288-1660
E-mail: linda.salchenberger@marquette.edu

Abstract: One key consequence of the dynamic capabilities approach is that the competitive advantage of a firm lies in its organisational and managerial processes. The research question examined in this paper is how organisational processes such as knowledge management and managerial processes such as the coordination between top managers specifically create dynamic capabilities. After reviewing the literature, several case studies are presented and the impact of these particular organisational and managerial processes on dynamic capabilities is examined in detail. The first case is a healthcare firm that used a managerial process; however, this firm did not achieve a dynamic capability. The other two cases specifically illustrate how a financial services firm used an organisational process and how a manufacturing firm used a managerial process to develop dynamic capabilities. In comparing these three cases, the three sets of activities that are necessary to develop a dynamic capability are demonstrated.

Keywords: organisational processes; knowledge management; dynamic capabilities; executive coordination; managerial processes.


Biographical notes: Dawn A. Harris has a PhD from the Kellogg Graduate School of Management at Northwestern University and is an Associate Professor at the Quinlan School of Business at Loyola University Chicago. At Loyola, she has served in many administrative and executive positions, including as the Director of the Gannon Center for Women and Leadership and the Assistant Provost for Global Initiatives. She has been a Visiting Professor at the Tuck School of Business at Dartmouth College and the Kellogg Graduate
School of Management at Northwestern University. Her research on leadership development, human capital and social issues has been published in the Strategic Management Journal and the Academy of Management Perspectives. She also serves on the editorial board of the Strategic Management Journal. She has taught extensively in executive education programmes and consulted with senior managers. She has also received the Graduate School of Business Faculty Member of the Year Award.

Frederick Kaefer has a PhD from the University of Iowa and is an Associate Professor at the Quinlan School of Business at Loyola University Chicago.

Linda M. Salchenberger is Associate Provost for Strategic Planning and Professor of Information Systems at Marquette University in Milwaukee, Wisconsin. She serves as Vice President for Strategy and IT Alignment at Executive Synergies in Northbrook, Illinois. She received her MBA and PhD degrees from the Kellogg School of Management at Northwestern University. Her areas of publication and research interests include strategic alignment of information technology, applications of artificial intelligence and gender and information technology. She has published in Decision Sciences, Neurocomputing, and Computers and Operations Research. She founded and served as the Director for the Center for Information Management and Technology at Loyola University in Chicago, Illinois, a locus for information technology research, programmes, and outreach.

1 Introduction

The dynamic capabilities framework has been used to explain how firms create business value and sustainable competitive advantage in a changing global business marketplace. The stated aspiration of the dynamic capabilities framework is “to explain the sources of enterprise-level competitive advantage over time, and provide guidance to managers for avoiding the zero profit condition that results when homogeneous firms compete in perfectly competitive markets” [Teece, (2007), p.1320]. This approach has provided a conceptual understanding of how firms achieve sustainable competitive advantage, and yet there is a need to deepen one’s understanding and to empirically study dynamic capabilities. A dynamic capability has been defined as “one that enables a firm to alter how it currently makes its living” [Helfat and Winter, (2011), p.1244]. In comparison, an operational capability has been defined as one that enables “a firm to make a living in the present” [Helfat and Winter, (2011), p.1244; Winter, 2003). To more thoroughly understand dynamic capabilities, Teece (2007, 2009) has created a framework to identify pertinent variables and understand their interrelationships. In order for firms to create a sustainable advantage, they need to create hard to replicate dynamic capabilities. The dynamic capabilities approach advances the concept that the competitive advantage of a firm lies in its managerial and organisational processes that lead to the development and deployment of dynamic capabilities (Helfat et al., 2007).

Managers need to have an understanding of the specific aspects of their organisational and managerial processes that are critical for the development of dynamic capabilities in their firm. In this paper, the focus is on the organisational process of knowledge management and the managerial process that involves the coordination between executives and the organisations they lead. It has been found that competitive advantage
comes from the ability to leverage and manage organisational knowledge (Grant, 1996; McEvily and Chakravarthy, 2002; Porter and Millar, 1985; Spender, 1996). In addition, the ability to coordinate (at the executive level) leads to the formation of a dynamic capability (Teece, 2009). These two particular organisational and managerial processes are the central focus of this study since these processes have a significant impact on the firm’s resources. Furthermore, when managers have an understanding of business processes and how they lead to dynamic capabilities, they have the potential to ensure a positive outcome for their firm.

The specific research question examined in this paper is whether organisational processes such as knowledge management and managerial processes such as the coordination between top managers specifically lead to dynamic capabilities. This coordination between top managers includes effective communication and cooperation. After reviewing the literature, this paper examines in detail the impact of these specific managerial and organisational processes on dynamic capabilities and then presents case studies that illustrate both processes. The dynamic capabilities framework is a new theoretical perspective which has undergone little empirical testing. The contribution of this paper is the initial empirical validation of the dynamic capabilities framework. Given the lack of existing empirical testing, an important first step in understanding the dynamic capabilities framework is qualitative research. The development of the explicit cases in this paper illustrates the relationships between processes and dynamic capabilities, providing greater insight for both academics and practitioners.

2 Dynamic capabilities: sensing, seizing, and reconfiguring

The dynamic capabilities framework is a perspective that has been receiving increased interest and has evolved rapidly since the seminal work of Teece et al. (1997). In Teece et al. (1997), the authors develop the dynamic capabilities approach to analyse the sources of wealth creation and capture by firms. Several recent works have delineated the evolution of research on dynamic capabilities (Helfat and Peteraf, 2009; Teece, 2009). According to the dynamic capabilities framework, firms need to align their resources with market needs through the sensing of opportunities and threats, the seizing of opportunities and the managing of threats, and the reconfiguration of resources (Teece, 2007). It is on this framework that the discussion of dynamic capabilities is based.

The first set of activities that firms need to focus on is sensing activities, in order to find new opportunities. Examples of sensing activities include scanning the environment for trends, observing competitor behaviour, and seeking information from customers or suppliers about unmet needs. To accomplish this, individuals must scan, learn, and interpret from both existing information and new data (Cohen and Levinthal, 1990). This leads to discovering existing opportunities and creating new opportunities. Enterprises should incorporate these activities in a systematic way rather than leaving these activities to chance. Now more than ever, management needs to find ways to gain insight from large quantities of information. They must filter information and identify relevant information on which to focus their attention (Ocasio, 1997).

After sensing a new opportunity, the next step is to seize the opportunity. Seizing opportunities requires determining your business model, understanding resource needs, making decisions pertaining to investing in technology and other resources, and then
leading others to make the appropriate changes. Examples of seizing include making fundamental changes in decision-making processes, developing new business models, and making significant investments in new technology. Research has found that organisational decision-making processes are complex and require numerous steps (Cyert and March, 1963). Due to the fact that multiple functional areas are involved, a significant amount of coordination and management are necessary. Cross-functional activities and associated investments must take place concurrently, rather than sequentially, if enterprises are to cut time-to-market for new products and services (Teece, 2007).

Following the seizing of an opportunity, ongoing reconfiguration of resources is necessary. This involves realignment of resources so that their combinations increase value to the firm. Reconfiguration gives the manager the ability to adapt to changing circumstances, to break out of outmoded routines, and allows the manager to sustain profitable growth. Examples of reconfiguration include realigning incentives, developing or acquiring new assets, and reallocating resources. Reconfiguration can be accomplished through changing organisational structures, managing strategic fit, and achieving incentive alignment. Innovation can be enhanced through a loosely coupled organisational structure that can lead to more entrepreneurial action. Strategic fit involves the realignment of assets to increase the value of the firm. Incentives need to be carefully designed in order to ensure that managers and shareholders support the performance improvement efforts of the firm. An example of reconfiguration of managerial processes is enhancing the lines of communication between managers. An example of reconfiguration of organisational processes is the reallocation of resources to support emerging lines of business.

All three of the described sets of activities that are in the framework are important in the development of a dynamic capability. However, describing these activities is only the first step. In order to achieve a deeper understanding, this paper examines how these three sets of activities contribute to a dynamic capability. Also, examined is whether all three sets of activities are needed to create a dynamic capability.

3 Processes and the development of dynamic capabilities

To better understand dynamic capabilities, one must have a thorough understanding of the underlying processes used by a firm. There are many different types of processes, but the focus of this paper is on processes that impact the resource position of an organisation, because they can impact dynamic capabilities (Helfat et al., 2007). Dynamic capabilities have been equated with processes (Eisenhardt and Martin, 2000) and processes have also been considered as mechanisms to put dynamic capabilities into use (Helfat et al., 2007). In this paper, an effort is made to illustrate how firms that understand and manage their processes create the ability to develop and deploy dynamic capabilities.

Both managerial and organisational processes can lead to the development and deployment of a firm’s dynamic capabilities. Figure 1 illustrates how managerial processes (Teece, 2007) and organisational processes (Nonaka and Takeuchi, 1995; Chesbrough, 2003; Teece, 2007) can lead to dynamic capabilities. Knowledge management, encompassing organisational learning, knowledge sharing, and knowledge
integration, is critical to the development of dynamic capabilities. The organisational process of knowledge management is particularly useful for sensing and seizing opportunities as well as for reconfiguring the firm’s assets. Managerial processes, such as the coordination between the top managers, are also important. As the coordination and communication between the top managers strengthens, the ability of these top managers to sense and seize opportunities and to reconfigure resources increases. The following two sections discuss in greater detail the managerial and organisational processes that build on the dynamic capability framework (sensing, seizing, and reconfiguring) explicated by Teece (2007).

**Figure 1** Managerial and organisational process that lead to a dynamic capability

Managerial process of top management coordination

Organisational process of knowledge management
4 Organisational processes

Van de Ven (1992) distinguishes between several different meanings of the term process used in the strategic management literature. This paper defines organisational processes as a systematic series of actions directed by organisational members toward goals. This definition is most similar to the category discussed in Van de Ven (1992) in which processes refer to actions. There are many different organisational processes including change management processes, investment processes (Maritan, 2001), and organisational learning processes (Zollo and Winter, 2002). Knowledge management processes are the focus of this paper since the ‘creation of learning, knowledge-sharing, and knowledge integrating procedures are likely to be critical to business performance, and a key (micro) foundation of dynamic capabilities [Nonaka and Takeuchi, 1995; Chesbrough, 2003; Teece, (2007), p.1339]. The knowledge-based view of the firm, unlike traditional economic models, identifies knowledge management as the sole source of sustained competition (Nickerson and Zenger, 2004).

Knowledge management enables sensing of technological opportunities in the marketplace. Organisational learning allows for a better understanding of what knowledge is available, which helps determine which new technologies to select and impacts internal research and development. Also, learning enables a manager to become aware of new developments in technology. Through examining organisational knowledge, managers can learn from what has been done in the past, which helps a manager define the business model and how to capture value. In addition, organisational learning is needed to recognise non-economic factors, such as values and cultures.

Knowledge management also enables the seizing of opportunities. Knowledge transfer is very useful to determine primary suppliers, to identify changing customer needs and which market segments to target. Knowledge sharing helps to select technology and target customers.

Knowledge management is important in decentralised structures that allow for reconfiguration. In a decentralised structure, knowledge boundaries can be moved much more easily to realign assets. Knowledge integration is important to recognise and avoid opportunities that would lead to cannibalisation and is needed to determine which asset combinations are value enhancing. During reconfiguration, the need for additional learning, knowledge transfer, or knowledge integration can become apparent.

5 Managerial processes

Managerial processes are a systematic series of actions directed by managers to meet a particular goal. There are several ways that managerial processes lead to dynamic capabilities through sensing, seizing, and reconfiguration. The capacity to sense opportunities is often enabled by search processes that are led by managers. Search processes are highly connected to the ability to modify a firm’s resource base (Helfat et al., 2007). Managers also examine options to coordinate internal research and development. At the executive level, the chief executive officer (CEO) scans the environment to see what the opportunities are in the marketplace and the chief information officer (CIO) has specific understanding of potentially useful technology. It has been understood for quite some time that successful relationships between CEOs and CIOs require the CIO to be able to contribute beyond their functional responsibility.
(Feeny et al., 1992). Achieving high performance from information technology (IT) requires a strong business/IT relationship (Peppard and Ward, 1999). Even further, mutual understanding between an organisation’s CEO and CIO is critical to its efforts to successfully exploit IT (Johnson and Lederer, 2005).

Managers also play a key role in seizing opportunities. They make decisions about selecting technology, targeting customers, and determining suppliers. Managers need to recognise when assets are complementary. In their respective roles, the CEO and the chief financial officer (CFO) have the ability to allocate resources and recognise when assets are complementary. In order to seize opportunities, the CEO and CFO must communicate effectively with each other. These leaders must also build loyalty and commitment with others in the firm through effective communication.

In order for reconfiguration to be successful, management must use integration skills, particularly when there is a decentralised structure. Executives need to manage the strategic fit of resources or assets to enhance value. They achieve this by aligning incentives to ensure that they are capturing profit and protecting rents. An important issue that arises in reconfiguration is that of intellectual property protection. It is the responsibility of the CEO to identify the strategic direction of the firm and the chief operating officer (COO) uses integrative skills to manage strategic fit. Of particular interest is the IT that is used to enable knowledge management and the individuals that lead knowledge management efforts, the CEO and CIO. Both business and IT executives are essential for helping organisations create internal business processes and external relationships (Henderson and Venkatraman, 1993; Hirschheim and Sabherwal, 2001; Huang and Hu, 2007; Lee et al., 2006).

6 Case study methodology

Case study methodology was used to develop a set of empirical data to answer the research question of how organisational processes and managerial processes may lead to the development and deployment of dynamic capabilities. The case study methodology used to answer the research question included identifying individual firms for analysis, conducting company research, developing the interview questions, conducting the interviews, and applying pattern recognition to analyse the results (Yin, 2009). Three organisations from different industry sectors were asked to participate and all three agreed. A focus group of senior executives aided in identifying the firms. The resulting representation from the healthcare, financial services and manufacturing sectors provided a rich diversity with respect to industry challenges, corporate governance, internal systems, customer base, culture, and other characteristics.

The data from the three selected cases are summarised and presented to illustrate how organisational and managerial processes were used to build (or not build) dynamic capabilities in order to strengthen the organisations’ competitive positions. While interested in all top managers, the interviews focused on two particular top managers in the organisations, the CEO and CIO, due to the fact that interviewing all of these top managers was not viable. The CEO and CIO specifically were selected to interview due to their impact on knowledge management as well as providing a good example of potential top management coordination. The three cases illustrate distinctive variations in the development of dynamic capabilities. An inductive case-study methodology and a cross-case search for patterns (Eisenhardt, 1989) was used to analyse the interview data.
In searching for cross-case patterns, sets of activities (sensing, seizing, and reconfiguring) were selected to ascertain intergroup differences. The sets of activities used were based on the existing literature (Teece, 2007).

The research team of co-authors formulated a set of questions for face-to-face interviews that were administered separately to CEO/CIO pairs from the same organisation. The decision to use face-to-face interviews rather than a large-scale survey was predicated on the premise that the perceptions of chief executives would provide insights into leadership behaviour and the processes employed to develop dynamic capabilities. To ensure validity and reliability of the collected data, the interviews were audio recorded and then transcribed for data analysis. Pattern matching was used to derive aspects of sensing, seizing, and reconfiguring that were instrumental in the creation of dynamic capabilities for organisations in different industries.

### Table 1
Comparison of approaches to external environment: sensing

<table>
<thead>
<tr>
<th></th>
<th>Case 1 healthcare provider</th>
<th>Case 2 financial services</th>
<th>Case 3 manufacturing firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scan of the environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Occasional</td>
<td>Constant</td>
<td>Constant</td>
</tr>
<tr>
<td></td>
<td>Inconsistent</td>
<td>Systematic</td>
<td>Systematic</td>
</tr>
<tr>
<td></td>
<td>No specific responsibility</td>
<td>Embedded in the organisation</td>
<td>Responsibility of top management team</td>
</tr>
<tr>
<td>Identification of opportunities</td>
<td>Top management team</td>
<td>Top management team, employees, and customers</td>
<td>Top management team</td>
</tr>
<tr>
<td>Communication/ coordination of exploration efforts</td>
<td>Top down</td>
<td>Strong organisational alignment</td>
<td>Strong top management team coordination</td>
</tr>
<tr>
<td>Role of sensing in the organisational culture</td>
<td>Ad hoc</td>
<td>Routine</td>
<td>Routine for top management team</td>
</tr>
<tr>
<td>Knowledge creation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Table 2
Comparison of approaches to external environment: seizing

<table>
<thead>
<tr>
<th></th>
<th>Case 1 healthcare provider</th>
<th>Case 2 financial services</th>
<th>Case 3 manufacturing firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making protocols</td>
<td>Hierarchical and bureaucratic</td>
<td>Flexible and agile</td>
<td>Strategic guidelines</td>
</tr>
<tr>
<td>Managerial mindset</td>
<td>Rule-based</td>
<td>Agile</td>
<td>Adaptable</td>
</tr>
<tr>
<td>Alignment of business model and strategy</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Development of integrated systems</td>
<td>No attempt to develop systems</td>
<td>Systems developed to respond to future opportunities</td>
<td>Integrated systems to improve performance</td>
</tr>
<tr>
<td>Recognition of complementary assets</td>
<td>Marketing and IT executive team</td>
<td>Leadership, employees, and customers</td>
<td>IT systems to integrate resources across divisions</td>
</tr>
<tr>
<td>Knowledge transfer</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 3  Comparison of approaches to external environment: reconfiguring

<table>
<thead>
<tr>
<th></th>
<th>Case 1 healthcare provider</th>
<th>Case 2 financial services</th>
<th>Case 3 manufacturing firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrate and realign resources</td>
<td>Resources temporarily reallocated</td>
<td>New investment in resources</td>
<td>New investment in resources</td>
</tr>
<tr>
<td>Alignment of incentives</td>
<td>No change in incentives</td>
<td>Realignment of incentives to match performance</td>
<td>No new incentives</td>
</tr>
<tr>
<td>Development of new specialised assets</td>
<td>None</td>
<td>Organisational performance metrics</td>
<td>Business processes reengineered</td>
</tr>
<tr>
<td>Changes in processes and systems</td>
<td>No lasting changes</td>
<td>Systems developed to respond to future business opportunities</td>
<td>Centralised business processes and information systems developed to maximise performance</td>
</tr>
<tr>
<td>Knowledge integration</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 4  Three cases and the set of activities used to develop dynamic capabilities

<table>
<thead>
<tr>
<th>Sets of activities</th>
<th>Case 1 healthcare provider managerial processes</th>
<th>Case 2 financial services organisational processes</th>
<th>Case 3 manufacturing firm managerial processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensing</td>
<td>Top management team did not work together to explore available options or search the marketplace.</td>
<td>Employees created and captured knowledge to enable organisational learning.</td>
<td>Top management team developed a mutual understanding of business opportunities.</td>
</tr>
<tr>
<td>Seizing</td>
<td>Top management team effectively communicated with each other to make decisions, allocate resources and recognise complementary assets.</td>
<td>Executive team transferred knowledge across the organisation.</td>
<td>Top management team effectively communicated with each other to make decisions, allocate resources and recognise complementary assets.</td>
</tr>
<tr>
<td>Reconfiguration</td>
<td>Top management did not alter their methods of communication or cooperation.</td>
<td>Employees integrated knowledge to create new service offerings.</td>
<td>Top management team managed strategic fit and created an integrated system.</td>
</tr>
<tr>
<td>Capability created</td>
<td>Operational</td>
<td>Dynamic</td>
<td>Dynamic</td>
</tr>
</tbody>
</table>

The following presents a summary of the three cases and the set of activities (sensing, seizing, and reconfiguring) used to develop dynamic capabilities. Tables 1 to 4 summarise this information for the reader and are useful to compare the outcomes of the three cases.
The development of dynamic capabilities

6.1 Case 1: Managerial processes in a healthcare firm

The first case describes how a healthcare organisation used a managerial process to seize an opportunity to develop a competitive edge in a crowded marketplace, but did not fully sense or reconfigure in order to develop a dynamic capability. This resulted in a short-term gain in new revenue and new business, an operational capability, but did not create a sustainable competitive advantage.

The healthcare industry has become increasingly competitive and patients have become very sophisticated consumers. The CEO of a large urban hospital recognised the need to attract new patients through patient education, online services, and other marketing strategies. The CEO and the board of directors knew that the hospital’s revenue goal would be achieved by increasing the number of new patients over the next fiscal year which would increase the demand for new services. The CEO did not work together with the CIO to explore available options or sense the marketplace.

The CEO did work with the CIO and the hospital leadership team to seize this opportunity to develop new patient education and service capabilities through new internal information systems as well as the development of a patient website. IT played an important role in the marketing strategy which was aimed at providing targeted services such as patient education (both on-site and online), a newsletter, a referral system, and a system to allow patients to schedule appointments on a website. The information system was designed to retain current patients and attract new patients in order to increase the patient base, all of which enabled the firm to make a living.

There were many obstacles to the new initiative, not the least of which was the traditional role that information technology had played in the organisation. The hospital’s information systems included large-scale patient information and billing systems, and the IT staff was focused on providing internal support. At this hospital, the IT department had never been considered as a strategic partner, but the CIO was willing to work with the CEO to support the new business initiative that involved IT. Since the CIO understood that IT existed to support the business and this initiative had a high priority, he quickly allocated some IT staff to work on this new project and deferred work on existing projects.

The budget was small, but the CIO was able to deliver a prototype that included an information system to support the services offered through the new patient website with most of the requested features. The CIO made this project a priority and focused his attention on the project. Once the system was tested and in place, the marketing department ran a full-scale marketing campaign to drive new patients to the new website with its medical education library, referral system, appointment scheduling system, and newsletter. The marketing campaign to drive new patients to the website proved to be successful and the number of new patients exceeded the project goals.

When the project was completed, the CIO and the IT department remained poised and ready to work on other priorities with the CEO. However, no internal reconfiguration took place. Unlike the other cases presented in this article, there was no real positioning for the future in terms of altering communication or cooperation between top managers. Therefore, the firm viewed this initiative as a one-time project with no long-term ramifications. In addition, since this project was considered a one-time project the new approaches were not diffused throughout the organisation. As a result, the hospital found
itself continuing to play catch-up with other hospitals in an increasingly competitive market. Therefore, the firm did not alter how they currently made their living.

6.2 Case 2: Organisational processes to achieve dynamic capabilities in a financial services firm

The second case presented is a financial services firm that used IT to create, transfer, and integrate knowledge across the organisation to support a dynamic capability that allowed for expanding services and increasing their customer base. This enabled the firm to sense, seize, and reconfigure to develop a dynamic capability. This organisation provided financial transaction services for its clients and faced a changing environment of increased regulation. There was a clear need to invest more resources in information security. The organisation had built up a strong reputation for quality, accuracy, and timeliness of the services it provided to the clients. The firm faced the constant challenge of keeping costs low for clients whose volume of transactions were increasing. New industry regulations also placed additional expenses on the delivery of services.

Faced with the increasing costs of security due to the elevated regulation in the industry, the CEO determined that, in order to add new services, IT would need to be aligned closely with the business. Rather than sacrifice quality or attempt to convince the clients that their costs would increase, the CEO turned to employees for ideas to gain greater efficiency. An important idea from the employees was to manage knowledge about performance.

Since the CEO had a strong knowledge and understanding of the importance of IT, the CEO hired a new CIO and a Chief Innovation Officer to create a leadership team. This leadership team worked with the employees to articulate the following three goals. First, a top priority for the firm was to protect its highly regarded reputation for quality, accuracy and timeliness. Second, they focused on what the employees could do to add more value for their customers. Third, the leadership team wanted to reach new markets and new customer bases.

Accuracy and transaction time goals were established, monitored, and reported daily. IT played a key role in many ways, particularly in providing daily information to every employee about the firm’s performance for each client. This enabled employees to sense important aspects that affect firm performance. The data stated whether performance goals were being met. Decision-makers throughout the organisation clearly understood how knowledge management contributed to performance.

IT helped the executive team to transfer knowledge across the organisation. Previously, only a select group of individuals had the performance information, and understood how this information could create efficiencies or enhance performance of the firm. As a result, the organisation seized opportunities and used the funds saved through efficiencies to develop and invest in new services.

The leadership team created scenarios about the financial environment and researched the future of the industry. This research was shared with their clients and helped to update existing services as well as to add new services. The CEO firmly believed that including their clients in the development of knowledge allowed them to be responsive to an increasingly regulatory environment. Another outcome was that the new services attracted additional clients. All employees in the organisation were given information, including how their particular role had made a difference in managing costs and performance. Bonuses were determined using a point system based on how well the
company was doing and how much the individual employee or unit contributed to performance improvement.

Beyond achieving efficiencies, the employees also learned more about the clients’ businesses and thus made the firm more effective. The CEO believed that their clients did not foresee what new services could be offered, and through understanding their clients’ businesses, the firm’s employees could ultimately help their clients to grow. This allowed the company to reconfigure their service offerings. The organisational process of knowledge management, which included the creating, sharing, transferring, and integrating of knowledge led to a more innovative financial firm that altered how they made their living.

6.3 Case 3: Managerial processes to enhance dynamic capabilities in a manufacturing firm

In the third case, a large global manufacturing company that achieved ambitious business goals over a five-year period is discussed. These results were achieved largely due to the expansion of their resource base by investment in IT. To achieve the strategic goals of the firm, the CEO required information integration across both geographic and business units. The CEO hired a CIO and worked with the CIO to acquire an enterprise information system (EIS). The utilisation of this EIS resulted in the desired growth in profitability and market share.

The company was ranked ninth in revenues in their industry and the executives sought to move into the top three through product innovation, aggressive sales and revenue growth, logistics capabilities, and expansion into global markets. A series of previous mergers had resulted in multiple disparate manufacturing information systems located in many different countries that could not effectively exchange information. The company’s product line had reached a mature stage and the executives knew that minor technical changes would not keep the company competitive with new, agile entrants. The CEO realised that he had to create an environment to share knowledge across business units, create efficiencies, and support innovation.

The CEO had many years of international experience and communicated the vision of building an organisation that was integrated across geographical locations as well as across business units with the primary goal of serving the customer. The CEO viewed the role of information systems and IT in the organisation as crucial to increase efficiency. The CEOs strategy for growth in the market included adding new products, increasing the efficiency of the firm’s global supply chain, increasing production quality, offering competitive pricing, and becoming more responsive to customers. Each of these activities was conducted in order to pursue opportunities. To execute this strategy, the CEO realised he needed to tackle the problem of misalignment between business and IT.

In order to achieve the strategic goals, it was necessary to hire a new CIO who was first and foremost, a business leader. This search took a full year. Once the CIO was hired, the CIO became an important part of the executive leadership team and, as a result, IT was viewed by both the CEO and CIO as crucial for sensing business opportunities. One of the first actions taken by the CIO was to reorganise the firm’s global information systems. The communication channels were consolidated and standardised between these systems to gain a production cost advantage over their competitors. Revenues from these cost savings allowed the organisation to focus on the next generation of product innovation in the industry. Thus, the efficiencies gained from IT generated the revenue
needed to invest in innovation and next generation technology. The company began to invest heavily in research and development.

The new executive team made the decision to acquire and implement an EIS. Unlike technology acquisition decisions of the past, this project did not have a clear cost justification. Nonetheless, the project was deemed important to achieve the strategic goals of the firm. This investment decision seized an important opportunity for the organisation. The integrated information system required modification of numerous systems and resulted in enhanced performance. The key performance indicators were made available and updated weekly in the corporate headquarters, in each region, and in every plant. As a direct result of using this integrated information system, responsiveness to customers with respect to pricing on customised products was reduced from 2 1/2 weeks to 2 days.

At the time that the CEO and CIO made the decision to acquire an integrated information system, the company had the most competitive IT in the industry and there was little motivation to make any dramatic changes. In fact, the CEO and CIOs decision to create an integrated system for customers was not initially supported by the rest of the leadership team. The strong relationship between the CEO and CIO allowed them to make convincing arguments to other members of the leadership team. Reconfiguration was seen as necessary to achieve the integration of business and IT. In the end, the executive management team agreed to the adoption of the new system.

This success story demonstrates the use of a managerial process, specifically the coordination between the CEO and the CIO. Unlike in case 1 (healthcare provider), in which a dynamic capability was not achieved due to the individual (and not systematic or coordinated) scanning of the environment, in this case the leadership team worked together to identify opportunities. The results of these managers’ actions improved the company’s bottom line and enhanced product and process innovation. The CIO became part of the executive team and was treated as a strategic business partner to drive innovation in new products and services. The project included investing in an enterprise software system that was supported by both the CEO and CIO. This new investment in resources greatly contrasts with the temporary reallocation of resources that occurred in case 1 (healthcare provider), in which a dynamic capability was not created. In addition, the appropriate business practices were developed to fit the different cultures of the countries where the firm’s plants were located. Within three years, the company added ten new products and services, adding commercial products to their base of consumer products. As a result, the company moved up to become number three in revenues in their industry and altered how they made their living.

7 Conclusions

The primary objective of this paper is to empirically test and extend the conceptual development of the dynamic capabilities framework. By examining specific cases our goal is to achieve a more concrete understanding of the workings of dynamic capabilities. Although the theory of dynamic capabilities has been developed in the literature, there is still a need to understand the underlying processes that lead to a dynamic capability. The contribution of this paper to the dynamic capabilities literature is to fill this gap by examining specific processes to determine when a dynamic capability is achieved by a firm.
The dynamic capabilities approach discussed in this paper illustrates that the organisational and managerial processes that lead to the development of dynamic capabilities can result in sustainable competitive advantages in firms. This paper has examined a specific organisational process, knowledge management, and a specific managerial process, the coordination between the top managers. The three cases examined in this paper have considered using organisational processes and managerial processes to achieve dynamic capabilities in a healthcare firm, a financial services firm, and a manufacturing firm. In the first case, a healthcare firm used a managerial process to seize an opportunity; however, they did not use a managerial process to sense that opportunity and they did not reconfigure their managerial process to develop a dynamic capability. In the second and third cases, organisational and managerial processes developed dynamic capabilities by using all three sets of activities: sensing opportunities and threats, seizing opportunities and managing threats, and reconfiguration leading to changes in how the firms made their livings. These cases have illustrated that organisational and managerial processes can lead to a dynamic capability when sensing, seizing and reconfiguration are all part of the process.

The three cases illustrate that both organisational and managerial processes are complimentary. In addition, the three cases reveal that either organisational or managerial processes can take a primary role in the development of dynamic capabilities. The cases have led to additional research questions. Further research is needed to understand the relationship between different processes in the development of a dynamic capability.

The initial qualitative research effort has assisted with providing evidence for the dynamic capabilities framework, but additional empirical research is needed to achieve a more definitive understanding of the framework. A limitation of this study was a focus on only a few cases. Future research could compare multiple firms within industries.

This research effort has value for both researchers and practicing managers in that it will lead to a better understanding of the underlying processes and how they lead to dynamic capabilities that ultimately will enhance the firm’s innovation and competitive advantage. The implication from the cases is that all three sets of activities (sensing, seizing, and reconfiguring) are necessary for the firm to develop a dynamic capability.

References


