

Evolution of Dynamic Capabilities in Crisis Management System: A Proposition from the Cases of Multinationals from NIEs

Jaeho Lee^{1*}, Jim Slater²

¹Department of International Business and Trade, Kyung Hee University, Seoul, South Korea

²The Business School, University of Birmingham, Birmingham, UK

Email: *jaeholee@khu.ac.kr

How to cite this paper: Lee, J., & Slater, J. (2022). Evolution of Dynamic Capabilities in Crisis Management System: A Proposition from the Cases of Multinationals from NIEs. *Open Journal of Business and Management*, 10, 1362-1372. <https://doi.org/10.4236/ojbm.2022.103073>

Received: March 29, 2022

Accepted: May 23, 2022

Published: May 26, 2022

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Abstract

This paper aims to suggest a theoretical proposition that connects market dynamics and dynamic capabilities via an organizational internal management system: crisis generation mode. In order to do this, we discuss the concept of dynamic capabilities in terms of differences with resource-based view (RBV), extend our discussion in a manner that identifies hierarchical and differential dimensions of dynamic capabilities and expound an account of how intentionally created internal crisis management system acts a moderator between market dynamics and dynamic capabilities. Our proposition started from the observation of some cases of multinationals in newly industrializing economies (NIEs) and can be examined by more in-depth case studies afterwards.

Keywords

Dynamic Capabilities, Resource-Based View (RBV), Market Dynamics, Crisis Management System

1. Introduction

The development of dynamic capabilities in strategy literature is closely linked with the harsh competition and market dynamics that have compelled firms to find it inevitably necessary to adapt, renew, reconfigure and re-create their resources and capabilities continuously (Wang & Ahmed, 2007). The theories of dynamic capabilities have their roots in the resource-based view (RBV) which argues that valuable, rare, imperfectly imitable and imperfectly substitutable (VRIN) resources a company has are a source of competitive advantage as stated in Barney (1991). The underlying assumption of RBV is that the diverse resources across

companies can be sustainable over time, thus enabling them to earn super-profits in equilibrium by maintaining their competitive advantage. This shows that RBV basically holds a static view but does not address how the currently different level of resources on which competitive advantages are based in different companies can be refreshed in changing environments (Ambrosini & Broman, 2009). The dynamic capabilities views are basically concerned with how the companies reconfigure the resources, processes and capabilities in the face of competitive environments, so can be said to be an extension of RBV. It focuses on a firm's capacity to create, renew or integrate its existing or new resources in rapidly changing business environment (Teece et al., 1997). Therefore, it is more interested in how a company can change, sustain and develop competitive advantage over time and with various scenarios rather than how it can effectively utilize stocks of resources considered to stand advantages over competitors currently. How a company reacts and transforms itself persistently to changing environment with speed and agility can be argued to constitute a basic nature of dynamic capabilities, so dynamic capabilities are not equated with sustainable competitive advantage and "dynamic" refers to the environment rather than the capabilities (Ambrosini & Broman, 2009). The more aware of the changing environment and ready to react a company is, the more likely does it have dynamic capabilities that other companies may not have.

In this paper, we aim to suggest an extended theoretical proposition regarding dynamic capabilities, considering that this proposition can be widely used to explain the emergence of multinationals companies from Newly Industrializing Economies (NIEs), especially in the context of East Asian countries. Our observation on the effective crisis management made by Samsung Electronics from South Korea and Haier from China rendered us interested in the internal mechanism of how the crisis recognition and intentional crisis construction by top executives has played a role in developing its dynamic capabilities in relentless business environments¹. This paper consists of the following sections. Section 2 outlines the main features of dynamic capabilities, in particular, in comparison with RBV. Section 3 presents how a company's reaction to changing environments by promoting "crisis recognition" can take a role in developing its dynamic capabilities and, in addition to this, suggests a theoretical proposition. Section 4 makes a conclusion.

2. Dynamic Capabilities Perspective: Definition and Differences with RBV²

The RBV views companies as bundles of resources combined with organization-

¹For example, Jong Yong Yun, former Samsung Electronics' Chief Executive Officer, emphasized the sense of 'perpetual crisis' among the employees and stressed that innovative products could be made with on-going recognition that the company had to get ahead of rivals with endless efforts to generate innovation in the 'crisis mind-set'. Haier's CEO, Zhang Ruimin smashed the faulted products by a sledgehammer and made it clear to employees that workers must shatter their old ways of working, encouraging the employees to have the mindset of 'crisis recognition'. These endeavors to instill crisis management system in the companies are known to contribute to the transformation of management significantly.

²This section significantly owes Lee and Slater (2007) its theoretical development of reasoning.

al capabilities or core competencies and states that these resources and capabilities are the primary determinants of strategy and performance. Even though [Penrose \(1959\)](#) offered original insights into the resource perspective of the firm, it was [Wernerfelt \(1984\)](#) and [Barney \(1991\)](#) that popularized this view, and since then, many authors (e.g. [Eisenhardt & Martin, 2000](#); [Zahra & Goerge, 2002](#); [Zollo & Winter, 2002](#)) contributed to the development of the theory. [Barney \(1991\)](#) argued that successful strategy rests on sustaining competitive advantage derived from resources coupled with capabilities, the bundles of all assets, management skills, organizational processes and routines etc. [Grant \(2003\)](#) approaches the RBV in a similar way, classifying resources into the tangible (financial and physical resources), the intangible (technological resources, reputation), and human: capabilities reflect the effective deployment of these resources. The RBV shifts the perspective on strategy formulation from the external environment towards the internal environment of the firm, in the sense of identifying the latter in terms of the bundles of resources and capabilities it possesses or can access. The emphasis of the RBV lies in its argument that sustainable competitive advantages can be constructed from the heterogeneous resources which are featured as VRIN that enable or limit the choice of markets and the level of profit ([Wernerfelt, 1989](#)) and from distinctive capabilities to facilitate the better use of the resources ([Eisenhardt & Martin, 2000](#)). For example, in the case of international diversification which takes the form of outward foreign direct investment, resources and capabilities possessed by a firm direct its diversification process and determine its organizational form for diversification ([Wernerfelt, 1984](#)). International diversification is an effective vehicle to absorb, adapt and innovate new resources and capabilities, leading to better performance ([Lee & Slater, 2007](#)). Empirical research has linked resources and capabilities to international diversification. Example of resources and capabilities in this context for successful diversification into international arena include administrative heritage ([Collis, 1991](#)), organizational practices ([Zaheer & Mosakowski, 1997](#)), bargaining power ([Moon & Lado, 2000](#)), experience with product diversification ([Hitt et al., 1997](#)), experience of innovation and R&D ([Bettis & Hitt, 1995](#)), international experience of top management teams ([Sambharya, 1996](#)) etc.

However, the highly changeable and volatile business environment since the mid-1990s challenged the main propositions of the RBV and led the strategy researchers to capture the concept of 'dynamic capabilities', which expresses the evolutionary nature of resource and capabilities ([Eisenhardt & Martin, 2000](#); [Teece et al., 1992](#); [Zahra & George, 2002](#)). The RBV accounts for the differential firm performance on the basis of firms' internal strengths and weaknesses versus external opportunities in terms of the possession of the heterogeneous resources and distinctive capabilities. However, the RBV is essentially a static framework that explains the association between the resource and performance in equilibrium, but does not address how the resources can be transformed in the face of highly dynamic business environment in order to sustain and improve competitive

advantages. In this situation, dynamic capabilities arose as a theoretical perspective to complement and expand the original concept of the RBV.

Teece et al. (1997) define dynamic capabilities of a firm as “the subset of the competencies/capabilities which allow the firm to create new products and processes, and respond to changing market circumstances”. They state that competition among firms (on the basis of product design, product quality, process efficiency and other attributes) can be explained, at one level, “in terms of exploiting arbitrary gains that remained previously unexplored in the market”, and that, from the point of view of the dynamic capabilities approach, “firms are constantly seeking to create new opportunities of the product, process, organization and technology, and rivals are continuously attempting to improve their competencies or to imitate the competencies of their most qualified competitors”. They also state that “differences in firms’ capabilities to improve their distinctive competencies or to develop new distinctive competencies play a critical role in shaping long-term competitive outcomes”. Furthermore, Eisenhardt and Martin (2000) define dynamic capabilities as “the firm’s processes that use resources—specifically the processes to integrate, reconfigure, gain and release resources—to match and even create market change” and “the organizational and strategic routines by which firms achieve new resources and configurations as markets emerge, collide, split, evolve, and die”. From these two definitions, we would say that dynamic capabilities are embedded in the *processes* or rather are simply the processes or are abilities to “create and reconfigure” these “processes” to, in turn, create new resources and capabilities and reconfigure existing ones.

Moreover, dynamic capabilities perspective does not assume a “static” aspect of resources and capabilities pool as expounded by the RBV. The RBV has been criticized for being static, because of its emphasis on the maintenance of sustained competitive advantage in the postulated equilibrium status. In dynamic markets, competitive advantages can be sustained no more over time unless companies strive to enhance their resources and capabilities. Hence, the RBV fails to address the influence of market dynamism and firm evolution over time (Wang & Ahmed, 2007). One of the implications from this can be found in the example of the technology and management advancement of some multinationals in emerging markets. It has been observed that some multinationals from emerging economies extended their business areas and operations with an array of resources and capabilities that might be viewed as insufficient from the viewpoint of the RBV. They transformed their management practices and organizational routines, redesigning and reconfiguring their seemingly scant resources and capabilities to gain super-profit in international marketplace, using their “dynamic capabilities”. The important implication of dynamic capabilities for management research in this respect is that resources and capabilities do not constitute a static pool, but may be creatively reorganized, improved and upgraded, depending on how a company can exert “a successfully dynamic process” on the management and organizational routines to take the company on to another

level of competitiveness³.

Dynamic capabilities have another important theoretical implication, reinforcing the recognition that firm-specific methods of coordinating resources may result in heterogeneous behavior of firms in the same industry. The notion of ‘path dependency’ explicitly allows for firms to have developed different capabilities through the unique histories and strategic trajectories (Lee & Slater, 2007). The standard RBV itself does not answer why firms make use of and invest in specific resources rather than in other types. Barney (2001) states that a firm’s competitive advantage over others may be derived from its different expectations about future returns from its resources. Entrepreneurial expectation, heterogeneous across firms, and the insight and perspective which influence the organization and coordination of resources inside the firm can be significantly important resources in themselves and may contribute to super-normal returns from the investment (Tokuda, 2004). This “entrepreneurial” way of coordinating resources has an aim to gain abnormal pay-off and is embedded in the company’s rent-seeking behavior (Casson, 2005). In this respect, dynamic capabilities can be argued to include the factor of continual “behavioral orientation” to renew, reconfigure and recreate a firm’s resources and capabilities. More importantly, dynamic capabilities can be said to be embedded in the behavioral orientation to “upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage” (Wang & Ahmed, 2007). (Table 1)

3. Market Dynamics, Crisis Construction, and Development of Dynamic Capabilities

Dynamic capabilities changes over time. The resources and capabilities possessed

Table 1. Conventional resource-based view vs. dynamic capabilities.

	Conventional RBV	Dynamic capabilities
Market environment	Stable industry structure, defined boundaries, clear business model	Ambiguous industry structure, blurred boundaries, fluid business model
Attributes	Complex, detailed, analytic routines that rely on existing knowledge	Simple, experiential routines that rely on newly created knowledge
Focus	Leverage existing resources and capabilities	Develop new resources and capabilities
Execution	Linear	Iterative
Organization	A tightly bundled collection of resources with stability	A loosely bundled collection of resources, which are frequently recombined

Sources: Peng (2009); Eisenhardt & Martin (2000).

³Dynamic capabilities require the companies to be equipped with the capacity to adjust to environmental changes and to be innovative in the face of variations and differentiation for the benefit of its customers as well as to get ahead of competitors (Wilhelm et al., 2015). According to Muttongoreya (2021), dynamic capabilities are formed in the firms, following the three main constructs: 1) ‘Sensing of unknown futures—these are activities that are focused towards scanning the environment and identifying relevant changes, threats, and opportunities. 2) Seizing—these are activities aimed at developing new methods and ways of responding to the observed environmental changes, threats, and opportunities. 3) Transforming—these are activities focused at reorganizing and continual renewal of existing operating routines’.

by a company evolve, depending on how the organization re-create and reconfigure them in response to changing market environments. Market dynamics is the most important factor that affects the nature and composition of dynamic capabilities. A dynamic market environment can result from a variety of factors such as industry technology innovation, regulatory change, economic cycle and the changing competitive nature of the industry (Tripsas, 1997; Wang & Ahmed, 2007).

Wang and Ahmed (2007) discuss firm resources and capabilities in a hierarchical order in line with market dynamics. Resources are the basis of a firm and constitute the 'zero-order' element of the hierarchy. Capabilities are located at the 'first-order' hierarchical position in a way that capabilities are essential to lead to improve performance by deploying resources to accomplish a desired goal. Core capabilities are 'second-order' capacities that enable the company to find its strategic direction and sustain its competitive advantages. However, even core capabilities can become less pertinent to firm strategy if the environment changes. Hence, the 'third-order' dynamic capabilities are crucially important to renew, reconfigure and re-create the resources, capabilities and core capabilities, because dynamic capabilities emphasize a firm's persistent response to the environment change and its re-organization (Wang & Ahmed, 2007). Dynamic capabilities rule the rate of change of resources and capabilities (Collis, 1994). Wang and Ahmed (2007) argue that the concept of dynamic capabilities basically encompasses a firm's ability to apply capabilities with quickness and astuteness as business environment changes. Dynamic capabilities underscore behavioral orientation towards, and processes of, transforming firm resources and capabilities into such outputs as superior-value products or services in a quick, accurate and creative way in line with the change of industry circumstances. It can be argued that the ability to change instantly and alertly to market changes is at the heart of dynamic capabilities. This sort of ability cannot be imitated easily and can be a source of sustained competitive advantage (Barney, 2001; Wang & Ahmed, 2007). From this discussion, we argue that market dynamic is an indispensable factor to enhance the dynamic capabilities, which will be more driven to become developed and improved inside a firm as market environment gets more competitive and unpredictable.

Dynamic capabilities can be identified in many dimensions. We refer to Wang and Ahmed (2007)'s classification into three component factors. First, "absorptive capability", the ability to "recognize the value of new, external information, assimilate it, and apply it to commercial end" (Cohen & Levinthal, 1990) is considered as an essential part that comprises dynamic capabilities. Woiceshyn and Daellenbach (2005) argue that absorptive capability is a critical factor leading to success in the face of external technological change. Companies with higher level of absorptive capabilities can achieve positive long-term performance outcomes compared to other companies, when the adoption of a new technology arises as a crucial element to tap into new products and markets opened by it. The ab-

sorptive capability comprises a different set of abilities to: 1) demonstrate long-term commitment of resources in the face of uncertainty; 2) learn from various partners and own research and experience and develop first-hand knowledge of the new technology; 3) thoroughly analyse the new drilling technology and share information within multidisciplinary teams; 4) develop and use complementary technology; and 5) possess a high level of knowledge and skills in areas relevant to applying the new technology (Woiceshyn & Daellenbach, 2005). Second, 'adaptive capability', the ability to adapt to environment changes and align internal resources with emerging opportunities is critical to firm evolution and survival and constitutes dynamic capabilities (Teece et al., 1997). Companies experience constant and wide-ranging changes in product, services, mode of marketing, organizing, financing and firm strategy. Firms need to be flexible in allocating internal resources to different functional areas. In this process, they are required to have abilities to identify and capitalize on continually changing strategic needs. Firms' adaptive capability can be clearly exhibited in their ability to adapt their product-market scope to respond to external opportunities; to scan the market, monitor customers and competitors and allocate resources to marketing activities, and to respond to changing market conditions speedily (Oktemgil & Gordon, 1997). Third, "innovative capability" refers to a firm's ability to develop new products and markets by linking its strategic orientation toward persistent innovation with innovative behavior and processes (Wang & Ahmed, 2004). Innovative capability includes various dimensions. Miller and Friesen (1983) focus on four dimensions: new product or service innovation, methods of production or service provision, risk-taking behavior by key executives and promotion of unusual and novel idea. Daneels (2002) states that innovative capability is specifically useful for new product development. Firms' innovative capability is a very important factor for firms' evolution and survival in the face of external competition and change. The more innovative a firm is, the more dynamic capabilities it has (Wang & Ahmed, 2007).

In this paper, we make an attempt to expound a theoretical extension connecting market dynamics to dynamic capabilities via an intentionally created firm behavior. We analyze how a company's behavioral characteristics, which is top managers' internal 'crisis generation', can act a moderator to the development of dynamic capabilities when market dynamics prevails over time. 'Crisis construction' can be defined as a firm's behavior that invokes a hypothetical crisis in the organization intentionally in the absence of an external crisis (that takes diverse forms, for example, global economic recession)⁴. A firm which had an experience of overcoming an external crisis successfully in the past can be

⁴These two international behaviour, "crisis generation" and "crisis construction" to manage foreseeable/unforeseeable events in the future are deeply affected by the official crisis management system or model in the firm. Crisis management refers to the recognition of external/internal threats to an organization and its stakeholders in order to intensify an effective response to it. Businesses prepare for contingencies plan in case of unpredicted incidents and attempt to mitigate the effects of a negative event. The process of designing and refining this plan in the event of a crisis is contained in the organization's crisis management system.

argued to win out over similar kind of crisis that may come in tomorrow. The more crises a company has gone through, the better capacities it will have to tide over upcoming crises. Some firms turn a crisis into an opportunity by accumulating and assimilating externally sourced knowledge into the organization, and transforming the absorptive, adaptive and innovative capabilities to an advanced level and achieve immense growth through enhanced competitiveness. A crisis may be, at least, beneficial to the firm in this sense. Furthermore, a firm which keeps an eye on the likelihood of future crisis that can come in any kind of form and encourages the organization to look several years ahead not to be caught by competitors cannot afford to be 'complacent' about the potential crisis and will make an utmost endeavor to become prepared for it. A research carried out by Lee and Slater (2007) shows how Samsung Electronics introduced crisis generation human resource management mode by having DRAM technology development task force teams in both America and Korea compete and collaborate each other in order to crack next-stage DRAM technology within a target time. Kim (1998) also presents a crisis generation case in which Hyundai Motor Company improved its technology learning from imitation to innovation and increased the intensity of effort in organizational learning by proactively constructing crisis.

Therefore, from our discussion, we suggest that:

Proposition: A firm which acts proactively in response to market dynamics learns from the past external crises by assimilating the knowledge and lessons that would otherwise be not available and acquired, and adopts crisis management mode and evokes internal crisis intentionally in the organization in order to maintain its dynamic capabilities which are embedded in absorptive, adaptive and innovative capability.

4. Conclusion

Gibson and Brikshaw (2004) state that a firm's ability to evolve can be assessed by evaluating how well the firm's management systems promote people to challenge out-of-date traditions and practices and allow the firm to respond quickly to changes in the market. Firms that are well adapted to market dynamics rapidly respond to shifts in its business priorities and manage to improve their dynamic capabilities to sustain enhanced competitive advantages. A lot of internal mechanisms to connect market dynamics to the dynamic capabilities can be conceived and, in this paper, we propose that "internal crisis management" generation system can act as a moderator between market dynamics and dynamic capabilities, allow a firm to predict and get ready for any foreseeable or unforeseeable crisis, and challenge the organization to build up dynamic capabilities by making the firm more absorptive, adaptive and innovative with market-based strategic orientation. With our discussion, we suggest a proposition.

This theoretical proposition aims to connect market dynamics and dynamic capabilities via an organizational internal crisis management mode relating to

crisis generation and crisis construction. The process of developing this proposition is deeply rooted in our discussion on the concept of dynamic capabilities which are differentiated from the traditional resource-based view (RBV). We have extended our discussion in a manner that identifies hierarchical and differential dimensions of dynamic capabilities and expound an explanation of how intentionally created internal crisis management system acts as a moderator between market dynamics and dynamic capabilities. Although we suggest a theoretical proposition from a careful reasoning of dynamic capabilities and crisis management mode, we need to observe some cases of multinationals in newly industrializing economies (NIEs) and examine our proposition by more in-depth case studies afterwards. We plan to account for our proposition with more detailed case studies which focus on international expansion of multinationals (NIEs), particularly in the context of East Asian countries. This missing link between the proposition and the future case studies remains a limitation currently in our research, but will be investigated thoroughly with a refined theoretical reasoning and case development.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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