

The Development Priority of Technology Competence: Case Study of Taiwanese Flat Panel Display

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Abstract: Traditionally, scholars suggest firm shall sequential to develop technology-oriented competence to enter other markets (Technology Promote Market, TPM). However, in practice, we observe contradiction that the international enterprises adopt the market-oriented perspective so as to first reflect on market, and then transfer external firm's technologies and experiences to firms (Market Promote Technology, MPT). It is an interesting phenomenon and impact on conducting this research that motives to resolve the gap between the theoretical argument and practice. Thus, the purpose of the study is to explore the sequence between prioritize to develop technology and market competence, and characteristics, mechanism, and routes of interaction of small-sized firm competence. This research using the extended case method (ECM) compared two Taiwan FPD (Flat Panel Display) enterprises that produce TFT-LCD (Thin Film Transistor-Liquid Crystal Display) manufacturing equipment. We found that firms possessing the characteristics of improvement resources (CIR), develop technology competence first, and apply intra-organizational learning (intra-OL) mechanism and inside-out routes (IOR) to promote market competence. The finding signs important significance that small-sized firm devotes to prioritizing the development of the most valuable competence for the future, and executing the fitness of learning mechanism, and routes.

Keywords: technology competence, market competence, resource-based theory, organizational learning theory, Small-Sized Firm

I. Introduction

Past research explored the development of firm competence mostly stressed on large organizations (Nonaka et al., 2014; Wernerfelt, 2014). However, they do not give enough attention to small-sized firms constrained on the situation of limited resources, not to develop several competences simultaneously, and think how small-sized firms use previously competence to facilitate follow-up competence. Which competence shall prioritize to develop so as to build another competence for small-sized firm, accordingly, needs further study. Particularly, few empirical studies have focused on small-sized firms prioritize to develop necessary competence, promote another competence, and consider the strategic thinking over the characteristics, mechanism, and routes of interaction of small-sized firm.

The purpose of this study was to explore how small-sized firms utilize firm's limited resources, learning mechanism, routes, and prioritize to develop necessary competence for firm's survival. The research problem of this study is that small-sized firm constrained on the situation of limited resources, not to develop several competences simultaneously, and think how small-sized firm using previously competence to facilitate follow-up competence. And what thinking should be used for small-sized firms to choice of the fitness learning mechanism and routes.

This research using the extended case method (ECM) compared two Taiwan FPD enterprise possessing dichotic successful path of competence development. We found that Neda (disguised name) possessing the characteristics of improvement resources (CIR), develop technology competence first, and apply intra-organizational learning (intra-OL) mechanism and inside-out routes (IOR) to promote market competence (Technology Promote Market, TPM). Conversely, ARET (disguised name) has the characteristics of social resources (CSR) (Alcacer and Oxley, 2014; Chittoor et al., 2014), develop market competence first, and execute inter-organizational learning (inter-OL) mechanism and outside-in routes (OIR) to promote technology competence (Market Promote Technology, MPT). The article concludes with noting the academic and practical application. Research limit and future research direction is offered as well.

II. Literature Review

The conceptual framework is based on field research and an integration of the scholarly literature regarding resource-based theory and organizational learning theory. Resource-based scholars have started to

focus much more on the dynamic nature of resources, asking how resources evolve over time (Helfat and Peteraf, 2003, 2014; Helfat and Martin, 2014). The notion of dynamic capabilities (Teece et al., 1997; Teece, 2014) called attention to the need for development of firm resources, particular in dynamic environments. Eisenhardt and Martin (2000) argued that resource development is a dynamic capability of the firm, because of its ability to alter the resource configuration of the firm. In short, these scholars note that resource evolution and renewal over time is crucial to firm, it is one of the mechanisms by which firms create, integrate, recombine, and reconfigure resources.

Wernerfelt (1984, 2014) argued firm's resources leads to different immediate insights than the traditional product perspective. Further, firm builds resource position barriers as firm's competitive advantages by exploiting existing resources and exploring new resources in within firm and across firm. Priem and Butler (2001) suggested studying the accumulation of resources from the view of RBV. Danneels (2002) extends resource-based view by examining not only how resources are used in product development, but how resources are utilized as well in competence development. Danneels (2007) argues applying technological competence to develop new productions that serves to new customer and examines how one resources can be used to build another. Thus, applying resource-based theory to investigate the priority of resource development, resource characteristics of interaction of firm competence.

March's (1991), drawing on organizational learning concepts, shows how resource characteristic impacts the firm's learning route by applying exploitative and explorative modes of learning. In addition to offering the application of March's distinction to organizational learning, scholars (Kogut and Zander, 1992; Henderson and Cockburn, 1994) also present an additional classification: the notion of basic competence, composite competence, and architectural competence. Composite competence and architectural competence are more significant because they are helpful for firms to escape from the trap laid by their current competences. Therefore, it is important to add new competences to the firm's repertoire for firm's continued prosperity in a dynamic environment (McGrath, 2001). Klerk and Havenga (2004) argues the firm growth that pursued by transferring of external resource and extending of internal resource. These scholars refer firm mix in new competences by both exploiting within firm's resources and exploring across firm's resources.

Eisenhardt and Martin (2000) reviewed organizational learning as some organizational activities that serve to renew and reconfigure firm's resources. According to Floyd and Lane (2000) argued strategic competence renewal requires both exploiting existing competencies and exploring new ones. Kaplinsky and Readman (2001) finds that the competence development of firm relies on the important vehicle of continuous dynamic learning. However, their research only focuses on exploiting of firm's existing endogenous resources and competences (i.e. intra- OL). They does not notice to develop firm's resource and competence by exploring exogenous resources and competences (i.e. inter- OL). To incorporate exploiting and exploring learning is crucial to the development of firm's competences by combining with endogenous and exogenous resources and competences.

Slater et al. (2014) and Baker and Sinkula (2015) argued market-driven OL is a function of a three-step process: Information acquisition is the process by which knowledge is obtained; Information dissemination is the process by which information from different sources is shared and thereby leads to new information or understanding; Information shared interpretation is the process by which distributed information is given one or more commonly understood interpretations.

This article examines small-sized firm shall prioritize to develop a necessary competence, and then promote follow-up competence. Danneels (2002) suggests firm shall develop technological competence first to support customer competence, to serve certain customers, and to enter other markets. Danneels (2002) "technological competence" is a kind of capability enabling the firm to design and manufacture a physical product with certain features. It is constituted by such technically related resources as design and engineering know-how, product and process design equipment, manufacturing facilities and know-how, and procedures for quality control. We adopt and extend Danneels (2002) "technological competence" into "technology competence" consisting by techlogical-related resources as manufacturing know-how (Wu et al., 2014; Danneels, 2002), research and design (Walsh and Ungson, 1991), and manufacturing and material radical innovation(Obloj and Zemsky, 2014) help to provide tangible and intangible goods and services.

The market competence literature in this study adopts and extends Danneels (2002) concept of "customer competence" and Narver and Slater (1990) "market orientation". According to Danneels (2002) "customer competence" gives the firm the ability to serve certain customers. It is constituted by such market-related resources as knowledge of customer needs, distribution and sales access to customers, reputation of the firm and its brands, and communication between the firm and customers. Moreover, Narver and Slater (1990) market orientation consists of three behavioral components, including customer orientation, competitor orientation, and inter-functional coordination. We synthesize both the notion of Danneels (2002) and narver and Slater (1990) to a new definition of market competence consisting by the resource at firm's existing market-related resources (Alcacer et al., 2015) as relationship with customer (Engerman and Rosenberg, 2014),

relationship with competitor (Park et al., 2014; Kleinbaum and Stuart, 2014), and relationship with employees (Eggers, 2012, 2014) helps to provide tangible and intangible goods and services.

III. Methodology

This article conducts a field study using in-depth interviews, observations, and documents as data sources from two Taiwan FPD industry, TFT-LCD manufacturing equipment providers, varied in terms of age, size, and the historical progress of resource. Research sites were selected to achieve a dichotic sample that provides many possibilities for comparison, which enables richer theory development (Glaser and Strauss, 1967; Strauss and Corbin, 1990; Corbin and Strauss, 2014; Walsh et al., 2015). This study intended to contrast firms that were different in terms of their variety of resource characteristics, learning mechanism, routes of choice, and that were at different interaction of firm competence. Rouse and Daellenbach (1999) called for a rich, detailed investigation of the nature of firm resources through comparative case studies.

Neda is a company that offers machine automation and maintenance for IC (Integrated Circuit), Semiconductor (SC), FPD, chemical, parts materials, and solar cell industries. Neda was founded in 1978, and had about 577 employees and \$5.4 billion in annual sales in 2013. In many ways, Neda has been a successful company. It enjoyed sales growth and profitability most of the time since its founding. Its automation equipments, especially those clean room robot and control system application have been adopted extensively by leading optoelectronics and SC firms for material moving and manufacturing. Mainly, its customers are widespread in high-tech industries that manufacture technology-based products that apply manufacturing automation for efficient production.

ARET is a company that offers machine automation and maintenance for Cathode Ray Tube (CRT), Semiconductor (SC), TFT-LCD, and solar cell industries. ARET was founded in 1982, and had about 489 employees and \$4.25 billion in annual sales in 2013. In many ways, ARET has been a successful company. It enjoyed sales growth and profitability most of the time since its founding. Its automation equipments, especially those micro-drill the entire factory equipment and pack/unpacking system have been adopted extensively by leading optoelectronics firms for material moving and manufacturing. Mainly, its customers are widespread in both high-tech industries that manufacture technology-based products and traditional industries that apply manufacturing automation for efficient production (Lin, 2014).

Interview data

The present study employed the extended case study method (Burawoy, 1991, 2014). Danneels (2002) asserted that adopting this method for collecting empirical data facilitates integrating, reconceptualizing, and extending theories, rather than creating theories. Burawoy (2014) also indicated that, because the extended case study method is used to compare theories and interview data and subsequently to compare concepts and theories, the two-cycle exchanges and intensive analyses thereby enhance data interpretation. The interview period of the present study was 8 years (from March 1, 2006 to April 30, 2014), during which 47 interviews were conducted (see Table 2 for details). The presented interview information was retrieved from the interviews with those in charge of the company; the interviewed executives were from different departments (such as, departments of quality control, design, materials, and management), and various entities and people were also interviewed (authorities, research institutes, and clients). The interview lasted from approximately 45 minutes to 2 hours; numerous interviewees consented to the interviews being recorded, and those who provided key information were subsequently invited to confirm the correctness of the relevant interview information (Miller, Cardinal, and Glick, 1997). Jick (1979) reported that the restrictions of employing only one research method can be overcome by adopting various approaches to collecting different types of data. Thus, in addition to the interview data, corporate documents and files also served as abundant and diverse bases for theoretical development.

Table 1 Questions posed during semi-structured interviews

Questions
1. When was your firm and industry established and/or restructured?
2. Please summarize the evolutionary history of your industry/ firm resource.
3. Does your company or do firms in your industry partake in any important inter- or intra- firm activities that affect firm's competence development?
4. What are the influencing factors of such inter-firm/ intra- firm interactions? What kind of roles do you think government agencies, research institutions, and private institutions play?
5. Are there any unique inter-firm/ intra-firm learning activities in this industry/ firm?
6. How is the market development within your firm/industry? Does the market competence promote follow-up competence?
7. How does resource characteristic influence the industry/firm competence development?
8. How is the technology development within your firm/industry? Does the technology competence promote follow-up competence?
9. How does resource characteristic influence the industry/firm competence development?

IV. Findings

In accordance with the research purpose, the research findings were classified into four parts: (a) technology competence and market competence, (b) the development priority of technology competence, (c) resource characteristics and selection of a competence development path, and (d) routes and exploiting and exploring another competence. Each is discussed below.

Technology competence and market competence

To theoretically interpret the technology and market competence of the research case companies, we extended the concepts of component and architectural competence proposed by Henderson and Cockburn (1994) and defined competence as a competence group formed by resources that can be continuously exploited or developed, in which a layer called composite competence is incorporated. The first layer, called component competence, refers to existing corporate competence. Additionally, the second layer, composite competence, is a group's unique composite competence developed by applying and combining existing types of corporate competence. Moreover, the third layer, architectural competence, refers to high-end architectural competence formed by further modularizing different types of composite competence. Thus, technological competence can be divided into three layers. The first layer, component competence, refers to existing corporate manufacturing skills (T_1) (Wu et al., 2014; Danneels, 2002). Furthermore, the second layer, composite competence, represents the research and designs (T_2) (Walsh and Ungson, 1991) executed by applying and combining the various types of existing corporate manufacturing skills. Finally, the third layer, architectural competence, refers to the radical innovations in the processes and materials (T_3) (Obloj and Zemsky, 2014) formed by further modularizing the research and designs derived from composite competence.

Market competence can also be divided into three layers of competence. The first layer, i.e., component competence, refers to personal (employees) relationship connections (M_1) (Eggers, 2012, 2014), which indicate the existing and external social connections possessed by corporate executives. Additionally, the second layer, composite competence, refers to competitor relationships (M_2) (Park et al., 2014; Kleinbaum and Stuart, 2014) formed by combining the existing and external social connections possessed by corporate executives in order to establish collaborative relationships with competitors. Finally, the third layer, architectural competence, refers to customer relationships (M_3) (Engerman, and Rosenberg, 2014), which modularize the various competitor relationships into connections that extend beyond competitors to crucial clients. The distinction between technology competence and market competence is listed in Table 2.

Table 2 Technology competence and market competence

patterns	Technology competence	Market competence
Architectural competence	Manufacturing and material radical innovation(T_3)	Relationship with customers(M_3)
Composite competence	Research and Design(T_2)	Relationship with competitor(M_2)
Basic competence	Manufacturing know-how(T_1)	Relationship with employees(M_1)

The Development Priority of Technology Competence

This section demonstrates the interplay of resource characteristic impacts on firm's competence development, as well as the historical progress of the critical resource development. Based on the interview and the historical progress of Neda's existing resource, we found that Neda has the characteristics of improvement resources (CIR) and exploitation resource (March, 1991). They obtain advanced knowledge from intra-firm interaction by continuing to improve their existing resources (Ittner and Larcker, 1997; Serel et al., 2001). In other words, small-sized firms have historically progressed by exploiting improvement resources, and tend to prioritize developing technology competence, and then to promote market competence (Nyberg et al., 2014).

4.1 T_1 to M_1

The key for T_1 to enhance M_1 is the organizational learning atmosphere and mechanism within the company, in which intradepartmental, interdepartmental, and personal knowledge should be employed to distribute technological knowledge to other departments, including the department of sales (Harvey, Palmer, and Speier, 1998). The aim was to employ the concept of exploitative learning to transfer the existing and internal corporate technological skills to the professionals and executives of all departments (knowledge acquisition), thereby enabling these personnel to learn to provide in-depth services to clients (knowledge interpretation). The learning network at Neda involved weekly formal departmental meetings, monthly cross-departmental meetings, intradepartmental apprenticeships, informal chats during meal times, and activities held during voluntary overtime working periods. Employees were encouraged to participate in these diverse meetings and activities to transfer interdepartmental professional technological knowledge (knowledge transfer). Subsequently, the knowledge could be transferred to clients outside the company, and the professional executive-client relationship could also be established. The executives' personal technological competence was sufficient to enable them to professionally interact with the technology licensors from the major foreign companies;

specifically, professional technological competence was crucial for clients in engaging in long-term collaboration with the company. Director Tsai of the liquid crystal display group division (September 14, 2009) indicated the following:

“We are all trained as electromechanical technicians. Our boss guided us in learning the series connection and structural alignment of electromechanical devices; even the staff of the Department of Sales had to have these skills. We removed and reinstalled the devices when they failed to meet our expectations and standards. For example, magnetic traction is used to manufacture the patent rollers used in cleanrooms, thereby preventing dust from forming on the roller caused by the mutual contact between the roller and the surface required for cleaning. We think ahead, and thus our clients naturally become more dependent on us.”

4.2 T₂ to M₂

When the manufacturing skills supported the corporate competence in research and design, competitors naturally pursued a horizontal alliance and collaboration, thereby engaging in cooperation with the market competitors (Badaracco, 1991). In Taiwan, the common method applied for research and design (T₂) to enhance competitor relationships (M₂) is using strategic alliances derived from joint research and development (R&D) or capacity sharing. The premise of strategic alliances in joint R&D is that firms are required to possess design, research, and development competence to integrate various systems (Wernerfelt, 2011), thereby enabling further social interaction with competitors and facilitating competitor relationships. Manager Chi of the Department of Management (June 1, 2010) indicated the following:

“When we integrated the methods we were familiar with, the product manufacturing processes sometimes became very smooth. For example, PIM [plastic injection molding] is developed through an integration of PMM [precision mold manufacturing] and IM [injection molding]. This integration achieved favorable effects and also drew the attention of our Japanese competitor, Shibaura Mechatronics Corporation, and we subsequently collaborated to develop sealing machines.”

The following is a classic example of an intraorganizational learning mechanism in which T₂ enhance M₂: The department of precision machinery at Neda Company transferred relevant knowledge on injection molding and laser marking technology to the departments of integrated circuit and precision machinery (knowledge acquisition), and the technical staff members at different levels from these departments jointly developed various types of systems (e.g., plastic injection mold components, automated semiconductor punching machines, and automated semiconductor laser marking machines) through the following interaction and joint learning channels (knowledge transfer): weekly meetings, monthly meetings, gatherings after work, and during free time when socializing with clients. These types of technology involved in new R&D (knowledge interpretation) attracted the attention of Neda’s Japanese competitor Shibaura Mechatronics Corporation, which invited Neda to jointly develop new products. Director Zheng of the semiconductor department (February 20, 2014) reported the following:

“Among our 600 employees, 300 are involved in R&D, amounting to the largest number of employees involved in R&D in the LCD industry in Taiwan. Discussions and interactions take place during regular meetings and in private. For example, once during our free time when we were socializing with our clients, we discussed how to assemble structures and develop precise systems and machines; subsequently, we returned to our office at midnight to draw the layouts. Because of our efforts and devotion, our competitors who previously did not hold us in high regard are now more likely to pay attention to us.”

4.3 T₃ to M₃

Taiwanese equipment suppliers must be cost-effective and innovative in manufacturing processes and materials to be recognized in the global equipment supply chain, a process that may require a long-term commitment (Lin, Chen, Sher, and Mei, 2010). Using the strategy of applying breakthrough process and material innovations (T₃) to facilitate forming customer relationships (M₃), Neda satisfied its customers and reduced costs through modular innovations in manufacturing processes and materials (Danneels, 2002), thereby developing connections with its crucial customers. Deputy Director Huang of the department of sales development (June 24, 2008) addressed the following regarding strategies for using T₃ to enhance M₃:

“Our innovation in the plastic materials used for cleanrooms substantially elevated the dust-proof capability and cleanness of the coating machines, and that is why we are able to enter into and collaborate with the major clients of the panel and IC (integrated circuit) industries with favorable prices for our products.”

General Manager Tsai (June 1, 2008) indicated the following:

“When I was at a lecture given by Shin-I Lin in 2005, Kun-Yao Lee phoned me, hoping that our company could merge with Gallant Precision Machining Co., Ltd. to manufacture equipment supplied to local companies. Subsequently, we became the only company capable of offering services to the touch panel company TurnKey Linux, and the process equipment services we provided involved glass cutting, chamfer milling, adhesive

residue scraping, washing, patching, lighting inspection, and packaging and shipping....”

To create an intraorganizational learning mechanism in which T_3 enhances M_3 , Neda management led innovative learning sessions. This innovative learning was developed on the basis of the existing LCD manufacturing technology as well as the hardware and software control technology (knowledge acquisition). Specifically, General Manager Tsai, who is an innovator, led the departments of LCD, electromechanical engineering, and materials in person to encourage brainstorming among the staff in these departments (knowledge transfer), and the corporate war room gradually developed diverse process innovations such as the automatic optical and automatic test equipment (knowledge interpretation). For example, Neda Company collaborated with major companies such as Statinc Company.

“With regard to our internal QDTCS spirit, our equipment quality and technology are weaker than those of the major international companies; however, we have advantages in product delivery and cost. We aim to use the existing materials (technology) in an attempt to try out different cooking methods (modules) and then offer new dishes (equipment) to our customers. Working overtime with the boss is stressful, and executing process improvements at midnight is tiring, but only by doing so can we accept red orders (accept orders at a loss), deliver black orders (profit from delivered orders), and collaborate with the major clients.” (Deputy Director Huang of the department of equipment, March 23, 2011)

Resource Characteristics And Selection Of A Competence Development Path

When addressing the influence of resource characteristics on the selection of a competence development path, scholars following the RBV have all emphasized applying static resources to develop dynamic competence (Wernerfelt, 1984; Danneels, 2002; Helfat, 2000). The key to competence development is to first examine the existing resource characteristics and subsequently select the paths for corporate competence development. The corporate culture of Neda Company is focused on technological research, development, and innovation; in addition, its improvement resources can serve as a basis for developing an internal to external path for corporate competence development. Through intraorganizational learning and exchange, various levels of technological competence can be attained and subsequently applied to facilitate developing different levels of market competence. Director Shi of the automation business division (January 31, 2012) stated the following:

“The founder of our company developed the first robot in Taiwan, and thus we can say that engineering is in our company’s DNA. The reason why our company is able to continuously develop to this day is greatly related to our initial mission: to compete with Japanese companies in automation technology!”

V. Academic Application

We applied resource-based theory and organizational learning theory to explore the characteristics, mechanism, routes of interaction of small-sized firm competence. Several contributions are described as follows.

First, this study identified resource characteristics that are necessary for the direction of firm competence development, particularly regarding prioritize to develop necessary competence and to promote follow-up competence. We found that firms possessing the characteristics of improvement resources (CIR), develop technology competence first, and apply intra-OL mechanism and inside-out routes (IOR) to promote market competence (Technology Promote Market, TPM). Conversely, firms that have the characteristics of social resources (CSR), develop market competence first, and utilize inter-OL mechanism and outside-in routes (OIR) to promote technology competence (Market Promote Technology, MPT).

Second, the processes of exploiting and exploring must occur simultaneously and are equally important. The findings of this study show that together both exploiting and exploring the existing and newly resources are activities that can expand the resource base of the firm, which in turn enables further new competences.

Third, a small-sized firm requires not only the characteristics of specific resources, but also the mechanisms of intra- and inter-OL with three stages of “information acquisition→ information dissemination→ shared interpretation” (Sinkula, 1994; Slater and Narver, 1995; Slater et al., 2014; Baker and Sinkula, 2015) and the route of inside-out and outside-in, which actuate and complete a firm’s competence development.

Fourth, the findings of this study are consistent with the views of scholars (Wernerfelt, 1984, 2014; Danneels, 2002, 2007) who have stated that a firm’s development is necessary for considering sequential resource development. Furthermore, we emphasize that the crucial choice for small-sized firms in the development process is the continual exploitation of existing resources, thus saving the firm financial costs and time. This view is consistent with that by March (1991) “exploiting learning”.

Finally, we found that small-sized firms are devoted to prioritizing the development of the most valuable competence, and then utilize the first competence to promote follow-up competence. Further, small-sized firms acquire architectural, basic, and composite (ABC) knowledge by exploiting and exploring learning benefit to employees, departments, and organizations within and across firms.

VI. Practical Application

This study applied resource-based theory and organizational learning theory to explore the characteristics, mechanism, and routes of interaction of small-sized firm competence development. Several contributions to the efforts of industrial companies are described as follows.

First, the findings of this study can help small-sized firms understand their resource characteristics and further formulate the direction of their competence development, learning mechanism, and routes. Second, small-sized firms with limited resources and scales develop FPD industry require high costs and technologies. The findings of study can help small-sized firms develop more urgently required competencies, and further use previous competencies to promote new competencies.

Third, small-sized firms require being built a corporate institution (Engerman and Rosenberg, 2014) to choose mechanism and routes, execute top-down and bottom-up learning, exploit and explore new domain, and promote new competence. Finally, for small-sized firms, exploiting internal resources and exploring external resources are equally important and should be accomplished simultaneously. More important, as long as such resources are beneficial to a firm's future direction, expand the resource base of the firm, which enables firms further new competencies, why care for intra- (e.g. Nonaka et.al., 2014) and inter-OL (e.g. Phan et.al, 2014), IOR and OIR.

VII. Limitations And Future Research

The findings in this study are based on an in-depth study of two firms. Obviously, the limitation of the study is that I could not establish whether the findings are generalizable to all small-sized firms producing high-technology industrial products in newly industrialized economies, or whether they generalize to possessing abundant resources. The researched firms could have idiosyncratic characteristics that impacted their competence development, learning mechanism, and routes. However, the findings presented above have a strong intuitive and conceptual appeal, and are amenable to quantitative verification.

Future research may be directed toward quantitative approaches or extended to the alliance partners (Lane and Lubatkin, 1998; Shipilov et al., 2014), mergers and acquisitions (Eisenhardt and Martin, 2000; Karim and Mitchell, 2000), and accumulate resources and competencies (Priem and Butler 2001).

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