



Contents lists available at ScienceDirect

Industrial Marketing Management



Leveraging internal resources and external business networks for new product success: A dynamic capabilities perspective

Zhang Junfeng^{a,*}, Wu Wei-ping^b

^a School of Business, Hong Kong Baptist University, 34 Renfrew Road, Kowloon Tong, Kowloon, Hong Kong, China

^b School of Business, Hong Kong Baptist University, Kowloon Tong, Kowloon, Hong Kong, China

ARTICLE INFO

Article history:

Received 1 May 2015

Received in revised form 5 April 2016

Accepted 1 June 2016

Available online xxxx

Keywords:

New product success

Dynamic capabilities

Network power

Technological capital

Human capital

ABSTRACT

Internal resources such as technological and human capital, together with a firm's business network, are vital sources of knowledge for new product development. Previous studies largely assume that a firm's internal resources and its external resources embedded in a business network are complementary in new product development. This study draws on the dynamic capabilities perspective to take the existing literature one step further. Our hypotheses were tested using a sample of 130 Chinese manufacturing firms in high-technology industries. Interestingly, the findings reveal a more complex picture of resource interplay between internal resources and external resources embedded in a firm's business network. More specifically, the findings show that a firm's power in its business network influences the effect of its internal resources on its ability to sense and seize opportunities, a vital dynamic capability. More importantly, the findings suggest that such dynamic capability plays a pivotal role in translating the benefits of resource-interplay into new product success.

© 2016 Elsevier Inc. All rights reserved.

1. Introduction

Although new products are often vital sources of revenue and competitive strength, their failure rate is high, which causes considerable financial loss in firms. This is particularly the case for firms competing in a dynamic environment (Yli-Renko & Janakiraman, 2008). Scholars have identified various drivers of new product success, including customer input, market orientation, technological synergy and company resources (e.g. Evanschitzky, Eisend, Calantone, & Jiang, 2012; Henard & Szymanski, 2001; Montoya-Weiss & Calantone, 1994). Traditionally, a firm's endowments of internal resources, particularly human and technological resources, have been of particular interest to new product development scholars (e.g. Evanschitzky et al., 2012; Henard & Szymanski, 2001). More recently, scholars have also shown interest in how a firm's external business networks can be leveraged in the development of new products (e.g. Fang, 2008; Rindfleisch & Moorman, 2001; Yli-Renko & Janakiraman, 2008).

Nevertheless, studies in this field have largely concerned the respective effects of various internal and external resources while relatively overlooking the effect of their interplay on the development of new products (Henard & Szymanski, 2001). Resource-interplay in this paper refers to a mechanism that involves a natural selection process in which some less efficient resources may be replaced by more efficient ones. Scholars tend to contend that resources embedded in business

networks complement internal resources and enhance their effectiveness and efficiency in new product development activities (e.g. Cassiman & Veugelers, 2006; Noordhoff, Kyriakopoulos, Moorman, Pauwels, & Dellaert, 2011; Rindfleisch & Moorman, 2001; Yli-Renko & Janakiraman, 2008). However, a detailed review of the broader innovation literature reveals two competing views regarding the interplay of a firm's internal and external resources embedded in business networks. One view suggests that a strong internal resource base is key to the effective absorption of external knowledge (Cohen & Levinthal, 1990); the other argues that such an internal resource base may hinder external knowledge absorption due to internal resistance (e.g., Teece, Pisano, & Shuen, 1997; Laursen & Salter, 2006; Srivastava & Gnyawali, 2011). Empirical studies have also shown that firms often fail to benefit from such resource-interplay (e.g., Laursen & Salter, 2006; Fang, Palmatier, & Grewal, 2011; Srivastava & Gnyawali, 2011). Thus, both the theoretical arguments and empirical results surrounding this resource-interplay issue remain surprisingly inconclusive in the existing literature, especially in the literature of new product development. It could be risky and costly for a firm to invest substantially in the development of its internal resource base and in the building of its influence in external business networks without a clear understanding of the process through which resource-interplay may affect its new product success.

The resource-based view suggests that a firm's capability to use resources translates the benefits of individual resources (e.g., a particular internal resource) into superior performance (e.g., Amit & Schoemaker, 1993; Mahoney & Pandian, 1992; Peteraf, 1993). Yet, due to its static

* Corresponding author.

E-mail addresses: junfzh@hkbu.edu.hk (J. Zhang), tigerwu@hkbu.edu.hk (W. Wu).

nature, and its lack of a distinctive focus on resource interaction effects (Srivastava, Fahey, & Christensen, 2001), this view fails to clearly explain the process through which resource-interplay might help a firm achieve new product success (e.g., Barney, Ketchen, & Wright, 2011; Kraaijenbrink, Spender, & Groen, 2010; Newbert, 2007). The dynamic capabilities perspective, a dynamic version of the resource-based view, suggests that resources by themselves are not sufficient to create value for a firm, particularly in changing environments (see Barreto, 2010 and Easterby-Smith, Lyles, & Peteraf, 2009 for a review); their latent value can only be realized through a firm's idiosyncratic dynamic capabilities (e.g. Newbert, 2007; Teece, 2007; Zahra, Sapienza, & Davidsson, 2006). Although recent studies have started to highlight the importance of dynamic capabilities in new product development in volatile environments (e.g. Piening & Salge, 2015; Yalcinkaya, Calantone, & Griffith, 2007), few have explicitly examined its role in the translation of the potential benefits of resource-interplay into new product success.

An interesting research question thus arises: how can a firm best exploit resource-interplay to develop dynamic capability and achieve new product success? Drawing on the dynamic capabilities perspective, this study tested a moderated mediation model in which a firm's internal resources interact with its external resources from business networks, thus reinforcing its dynamic capabilities and enhancing its new product success. We contend that volatile environments have posed a great challenge to the effective capture of the potential benefits of different resources and their synergies in new product development, due to the speed at which resources and capabilities become obsolete. It is dynamic capabilities that serve as a leveraging mechanism that transforms the potential value of resource-interplay into new product success.

Dynamic capabilities are defined as the ability to “integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece et al., 1997, p. 516). They are essential capabilities particularly in volatile environments (e.g. Teece, 2007; Teece et al., 1997). Sensing and seizing capability (SSC), a key dynamic capability, is a firm's ability to sense and seize opportunities for new product development. It manifests two fundamental components—sensing and seizing—of dynamic capabilities (Teece, 2007) and reflects the activities that most prior new product development studies have focused on (Brown & Eisenhardt, 1995). We adopt the approach of Amit and Schoemaker (1993), who distinguished the resources and assets owned or controlled by a firm from its ability to exploit them. The knowledge resources owned by a firm, such as human resources and technological assets (Barney, 1991; Leonard-Barton, 1992), and external resources embedded in a firm's business networks (Lavie, 2006) are examples of such resources.

This study contributes to the existing literature in three ways. First, to the best of our knowledge, it is one of the first attempts to unveil the process through which a firm turns the potential benefits of the interplay between its internal resources and resources embedded in business networks into new product success via its dynamic capabilities. By theorizing and empirically elucidating the relationships between resource-interplay and dynamic capabilities, and between dynamic capabilities and new product success, this study shifts the focus from the respective effects of individual resources on new product success, as seen in the existing literature, to the effect of resource-interplay on dynamic capabilities and new product success. It helps to explain the weakening main effects of internal resources factors on new product success observed in prior studies (Evanschitzky et al., 2012) by examining the effects of interrelationships among success factors (Henard & Szymanski, 2001), for instance, the effect of resource-interplay in this study. Our findings help answer the call to develop “new and more comprehensive theoretical approaches to capture the underlying nature of NPDP [new product development] success factors” (Evanschitzky et al., 2012, p. 30).

Second, this study helps to advance our understanding of the dynamic capabilities perspective in the context of new product

development. Through an investigation of the effect of resource-interplay on dynamic capabilities, we address the under-researched issue of how a firm builds and renews its dynamic capabilities (Ambrosini & Bowman, 2009; Zahra et al., 2006). The dynamic capabilities perspective suggests that a firm's resource base is its base for creating dynamic capabilities (e.g. Easterby-Smith et al., 2009; Zahra et al., 2006), and these capabilities are shaped by resources including technological assets, complementary assets and relational assets (Teece et al., 1997).

Third, this study elucidates the role of intermediate capabilities, particularly dynamic capabilities, in the context of new product development. By empirically examining the mediating role of dynamic capabilities in transforming the potential benefits of resource-interplay into new product success, this study enriches our understanding of the value creation process linking resources and performance in new product development (e.g. Kraaijenbrink et al., 2010; Newbert, 2007).

Our hypotheses are proposed and tested using a sample of high-tech firms in China. This research setting is considered appropriate for this study. Both new product development (e.g. Fang, 2011; Zhou & Wu, 2010) and relationships (Li, Poppo, & Zhou, 2010) are important to firm survival and competitiveness in China. Additionally, the volatile environment in emerging economies such as China is likely to provide a prominent test ground for dynamic capabilities (Dixon, Meyer, & Day, 2010; Drnevich & Kriauciunas, 2011). A conceptual model is depicted in Fig. 1.

2. Theoretical background and hypotheses

2.1. Resource-interplay and new product success

Studies of new product development have repeatedly demonstrated that a firm's internal resources, such as its human and technological resources, are key drivers of new product success (e.g., Henard & Szymanski, 2001; Evanschitzky et al., 2012; Fang et al., 2011; Henard & McFadyen, 2012). It is well recognized that firms draw on their human resources (e.g., Evanschitzky et al., 2012; Henard & Szymanski, 2001; Henard & McFadyen, 2012) and their existing technological resources (e.g. Evanschitzky et al., 2012; Fang et al., 2011; Henard & Szymanski, 2001) to develop new products that they hope will be well received in the market. With the intensified competition and rapid dispersion of knowledge in recent years, studies of new product success have increasingly emphasized the leveraging of a firm's external networks, with a particular interest in the relationship between suppliers and customers (e.g. Fang, 2008; Noordhoff et al., 2011; Yli-Renko & Janakiraman, 2008). However, most of these studies have only examined the effect of either internal resources or external networks on new product success. Although a firm's external relationships are normally assumed to provide complementary assets (e.g., knowledge, R&D activities) for new product development (e.g., Knudsen, 2007; Cassiman & Veugelers, 2006; Xu, Wu, & Cavusgil, 2013) and to help it leverage its existing knowledge base more effectively (e.g. Noordhoff et al., 2011; Rindfleisch & Moorman, 2001; Yli-Renko & Janakiraman, 2008), the effect of resource-interplay revealed by empirical studies is less clear (e.g. Fang et al., 2011; Srivastava & Gnyawali, 2011).

We propose that a firm's ability to access the external resources embedded in its business network (e.g., network power) may in fact reduce the potential synergetic effects of its internal resources (e.g., prior human resources and technological resources) on its dynamic capabilities such as SSC. A firm's external network may enable it to enjoy the benefits of information asymmetries (Leiblein, 2011) and greater control over scarce external resources (Gulati & Sytch, 2007), providing a context resembling an efficient factor market. Thus, the external network may offer a more efficient and cost-effective alternative for a firm that would otherwise lack the knowledge to cope with changing business environments due to insufficient or inefficient internal resources. Consequently, resource-interplay between internal resources

Download English Version:

<https://daneshyari.com/en/article/5111127>

Download Persian Version:

<https://daneshyari.com/article/5111127>

[Daneshyari.com](https://daneshyari.com)