

# An analysis framework of the parent-child relationship for post spin-off performance: Evidence from SMEs in Korea

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## Abstract

Building on the DC interaction model between a parent company and its spin-offs, we examine that a dyadic relationship can be differentiated within the functions of space, motivation, and time. We investigate that these three factors encompassing the parent-spin-off DC relationship can be applicable to both linear(i.e., geographic proximity and low spin-off CEO's salary is positive) and nonlinear(i.e., too much frequency of new spin-off creation is as harmful as too little) effects on determining the performance of spin-off firms.

The direction of causality is underpinned by social capital, human capital, and compensation-activation theory rather than by the normal consequences of previous empirical research. Further, our results suggest the overlap between DC and entrepreneurship; namely, spin-off firms create, learn, and exploit opportunities through a reconfiguration of parent DC so that DC establishes itself as a key concept in the entrepreneurship domain.

*Keyword: Parent-Spin-off Relationship, Dynamic Capabilities (DC), Divestiture, Entrepreneurship*

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## I . Introduction

The corporate spin-off has increasingly attracted both academic and practical attention that can be identified as a central research topic extending across a broad range of sociology, finance, organizational behavior, and strategy. This stream of research had a key impact on regional economic development and worldwide competitiveness. In particular, the meta-analysis of Lee & Madhavan(2010) suggests that on average, divestiture subsequent firm performance for the divesting parent company has a systematically positive relationship to its parental outcome. In terms of the competitive advantage of MNEs, the dynamic capabilities(DC) frame also acknowledges the critical role of a parent company, underscoring its contributions to its subsidiaries managerially, technologically, and financially(Teece, 2014). However, to date, little of the related research has addressed the reciprocal relationship between a parent company and its spin-off firms, and many studies have stressed only the results for one-side of the performance, either the parent or its spin-offs.

## II . Theoretical Background

### 2.1. DC in the domain of ENT

The existing literature on DC highlights firms' internal and external organizational skills, resources, and functional competencies to adapt to environmental conditions(Teece et al. 1997). DC can be defined as the ability to achieve organization purpose through extension, creation, and modification of firms' resources, and to shape evolutionary fitness toward environmental changes(Helfat et al., 2007). Notably, the DC of both the parent company and its spin-offs significantly produce more financial outcomes than do the control groups of similar firms by transferring parental work experience, tangible/intangible resources, and entrepreneurial orientation(Walter et al., 2006; Trott et al., 2008; O'Shea et al., 2005). Adner & Helfat(2003) highlight that theoretical development on the strategic role of successful spin-offs is associated with the effect of their parent company's dynamic capabilities. Parhankangas &

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Arenius(2003) also suggest that the different types of resources and capabilities that stem from a parent company will execute a positive impact on the survival of its spin-off firms. Given that the theoretical rationale of spin-off firms, however, empirical gaps regarding the parent-spin-offs DC of small firms in the previous literature is also surprising. In this study, we focus on further inquiry that remains illuminating and answers these two queries: "What conditions are necessary to create a financial performance for spin-off firms?", and "In terms of small firms, when and how the effect of parent DC on spin-off performance constitutes a moderated mediation model by stimulating the parent-spin-offs relationship to be engaged in the DC of spin-offs?" By using Danneels'(2016) scales of 1ST and 2nd DC, we suggest that the DC of spin-off firms that result in greater performance require examination within the relationship of their parents' DC, which are diverse not only in the stock of resources but also in the competency to make the flow of resources.

## 2.2. The mediating role of spin-off firm's DC

Although the initiative to create spin-off derives from both the parent-spin-off linkages and their entrepreneurial actions, what was largely not considered in the previous literature is whether the DC of small firms originates from internal or external factors(i.e., parent). Specifically, the key role of DC is defined as the organizational assets to the spin-off, in which positively affects different types of spin-offs, and post-spin-off performance(Meyer, 2003; Clarysse et al., 2011). As Teece(2012) noted, attention of DC in entrepreneurial activity, epitomizing entrepreneurial managerial capitalism, includes "calibrating opportunities and diagnosing threats, directing(and redirecting) resources.....possibly also reshaping organizational structures and systems so that they create and address technological opportunities and competitive threats." From the perspective of small firms, DC also encourages them to generate strategic change and to guarantee effective adaptation for environments. For instance, Zahra et al.(2006) defined entrepreneurial activities of new ventures as "influencing the selection of resources and skills, promoting organizational learning processes to capture external knowledge as new situations arise.....combining to create

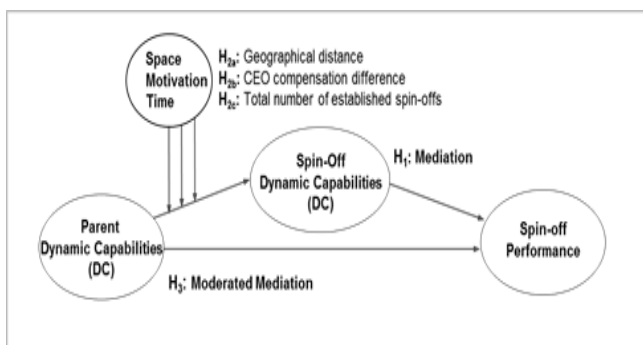
new substantive capabilities and the organization's knowledge base."

As an extension of RBV, the parent-spin-off DC relationship presents the heterogeneous complementarity of a small firm's resources. That is, the positive parent-spin-off links are associated with pre-spin-off technological complementarities that cause growth post -spin-off(Parhankangas & Arenius, 2003). The case of research-oriented spin-offs also bolsters the supposition that institutional capabilities can influence spin-off activations with regards to the new action path of divestiture, the balanced goal of spin-off creation, and the incorporation of initial resources(Rasmussen & Borch, 2010). Consequently, a small firm's liabilities of newness can be reduced by forming skills, networks, and competences inherited in the routinization of parent's capabilities(Klepper & Thompson, 2006). This inter-organizational process also supports the development of culture and routines when the parent-spin-off process is operated by the influence of the initial imprinting-revision-reimprinting(Ferriani et al., 2012). To make our research objective more concrete, we revisit the theoretical foundations of DC in shifting multinational enterprises(MNEs) structures. Lessard et al.(2016) argued that DC from the parent guides "the ability to combine selected technologies, individuals, and other resources in new products and processes regardless of location and across organizational boundaries.....that the systems embedded in the organization are typically developed(substantially but not entirely) at home and then extended abroad, enabling sensing, seizing, and transforming across all regions in which the firm is actively engaged." At the same time, the variation in subsidiary roles further suggests that DC from the interactive process is a prerequisite in terms of the degree and range of DC generated in subsidiaries' lifecycle(Collewaert et al., 2016; Phelps & Fuller, 2016). In the same vein, our research intention corresponds to the role of DC and its wider significance in the small firm's parent -spin-off relationship. Providing a mediation process fully covering both theoretical and empirical viewpoints, this study suggests that a parent company's DC should improve the financial performance of post -spin-off firms by stimulating its spin-off DC. This enables us to better understand how parent DC affects post-spin-off performance positively.

### III. Methodology

#### 3.1. Hypotheses & Research Model

Our sample is drawn from all parent and spin-off firms in Korea that were guaranteed by a government-owned bank between 2011 and 2015. To construct our dataset, we combined a set of information(e.g. confirmation of an actual spin-off existence) and this data from the government-owned bank are exploited for only academic purposes to research the parent-spin-off relationship. We also used the database developed by the Korea Investors Services(KIS), which contains firm-level financial information and profiles. This database is equivalent to that found in the COMPUSTAT database and is highly renowned for standard firm-level analysis in Korea. It has been utilized by previous research efforts on ownership structure and performance of Korean firms(Baek et al., 2004; Eom & Lee, 2010). The second wave of the survey was implemented to match parent-spin-off dyads. The DC items used a Korean version that was translated into English by two related experts who are bilinguals because all the respondents were Koreans. Our data have no case of divestments(i.e., a sell-off is considered selling a part of a company to another company) because we seek to coincide with primary research interest in entrepreneurship on parent-spin-offs'interorganizational relationships. A detailed research model is presented in <Figure 1>.



<Figure 1> Research Model

#### 3.2. Results & Contribution

This paper offers several significant contributions. Theoretically, our research offers valuable insights of dynamic

capabilities into the parent-spin-offs relationship of small firms. We first advance the research on the DC of a parent company and its spin-offs performance by investigating dynamic capabilities of the spin-offs as a mediator for that relationship. Parental characteristics also affect spin-offs' competences to combine space, motivation, and timing effects across functional constructs, which in turn, translates into a difference in the performance of spin-offs. On the empirical side, these results allow us to weigh the contrasting hypothesis of whether DC-oriented performance is realized via the process of entrepreneurship-driven divestiture, even for young or small firms. We demonstrate that the DC of a small firm should be considered as a reflected capacity derived from its parental capabilities and as a strategic choice that will lead a firm to sense, seize, and reconfigure resources when the parental influences are tapped. We also argue that three factors in this study - space, motivation, and time - surrounding parent-spin-off links coexist both as linear and nonlinear. In detail, it highlights that the parent-spin-off DC relationship is enfeebled when the parent firm's experience of spin-off is not too great or too low; in other words, excessive or immature spin-off creations by a parent company rather entails a decline in the learning mechanism of parent-spin-offs. Finally, our moderated mediation models provide a leap forward in methodological refinement of DC theory. This shed new light on the current research into entrepreneurship by offering a systematic picture that proposes a critical role for DC of a parent company and its spin-off.

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