STRATEGIC INNOVATION AS MEDIATOR BETWEEN ORGANIZATIONAL CAPABILITIES AND HIGH GROWTH FIRMS

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ABSTRACT: *Based on the resource-based view (RBV) theory of the firm, this study develops a research model for investigating the influence of organizational capabilities on high growth firms (HGFs), considering the mediating effect of strategic innovation. Based on the review of empirical studies drawn from the Scopus and Web of Science databases, this study proposes that organizational capabilities will have a positive influence on the emergence of HGFs; that organizational capabilities will have a positive influence on firms' strategic innovation; that firms' strategic innovation will have a positive influence on the rise of HGFs; and that strategic innovation will have some mediating effects on the relationships between organizational capabilities and firms' high growth potentials. Thus, this study advances a set of propositions and a guiding framework that researchers and policymakers working in the strategic management field may use in attempting to investigate strategic innovation as a mediating mechanism between organizational capabilities and the way firms become HGFs.*

KEYWORDS: High growth firms; organizational capabilities; strategic innovation; performance.

INTRODUCTION

There is a continuing interest in firm performance as a criterion in economic research and organization studies. Recently, a new approach to this criterion, called high-growth firms (HGFs), has been occupying researchers' attention because of its importance both as a tool for accelerating nations' economic growth [1, 2] and as a strategic management lever for achieving competitive advantage among firms [3]. While the concept of HGFs has its roots in the pioneering works of Birch [4] who is credited with coining the term *gazelle* used to describe fast-growing medium-sized business ventures, the concept only reached critical acclaim in the first decade of the twenty-first century. The primary reason for interest in HGFs and the main thrust of its underlying idea is that a small number of firms in an industry account for the largest contribution to its growth due to their fast growth [4, 5]. HGFs are competitive and greatly contribute to the performance of economies around the world. An increase in the number of HGFs in any industry results in increased growth in the industry (Bos and Stam 2014). This explains why entrepreneurs and policymakers alike are interested in HGFs.

One of the questions researchers and policy-makers grapple with about HGFs is: What brings about HGFs? What stimulates the emergence of HGFs? Or what makes a firm become HGFs? The search for a solution led to the production of many studies that sought to unravel the antecedents and outcomes of HGFs. A review of the available literature points to a cascade of antecedents and factors too many to be considered in this paper. However, taking the resource-based view (RBV) perspective as the most influential theory in the field of strategic management, two antecedents commend themselves with increasing regularity. These are organizational capabilities and strategic innovation. A battery of meta-analyses [6-9] and systematic reviews [10-12] on organizational capabilities as well as meta-analyses [13-16] and systematic reviews [17-19] on strategic innovation attest to the critical importance of organizational capabilities and strategic innovation in the emergence of high performance or HGFs. However, while the growing interest in HGFs and their antecedents seems to go on unabetted, extant studies in the field still grapple with conceptual divergences and unexplained gaps separating theoretical mainsprings from the real-world business experiences. In this study, therefore, and based on the postulates of the RBV theory, we seek to present evidence that sheds light on the distal influence of organizational capabilities and the proximate effect of strategic innovation on the emergence of HGFs in the context of developing economies of the world.

THEORETICAL BACKGROUND

The RBV of the firm seeks to understand how firms develop and maintain competitive advantages over others. The RBV as currently used in the strategic management field [20-22] places organizational resources and capabilities at the heart of strategic management in order to explain the various antecedents and outcomes of organizational performance. First propounded in the work of Wernerfelt [23], the RBV theory of the firm took its current definitive form from the widely cited work of Barney [24] "who's framework and definitions of the core constructs of RBV theory are widespread" [25]. The RBV theory is now used to undergird empirical studies on HGFs. The RBV theory holds that outstanding organizational performance is explained by the possession, development, and utilization of unique and idiosyncratic resources to attain sustainable high growth [23]. Organizations combine and exploit the unique resources they can marshal to achieve their strategic objectives. Thus, the RBV theory explains that high performance is achieved based on intangible resources that include the firm's ability to use and mobilize the resources it controls in unique ways [26]. Thus, RBV theory attaches great importance to intangible assets that are not easily accessible to the competitors. In this sense, Barney [24] identifies four conditions (value, rarity, non-substitutability, inimitability) that resources must meet to acquire and sustain competitive advantage for high growth. However, the difficulty of accessibility of strategic resources refers to four properties listed by Dierickx and Cool [27]: the "diseconomies" related to the reduction of time, the advantages linked to the size of the assets, the interconnection between the assets, and finally the causal ambiguity. This study focuses on the interconnections between two strategic assets (capabilities and innovation) in the achievement of competitive advantage for high growth.

Organizational capabilities and innovation are two groups of intangible resources firms use to achieve the strategic objective of high growth [28]. Most extant research, however, overwhelmingly places the former as a distal influence and the latter as a proximate influence on the emergence of HGFs [29, 30]. In strategic management literature, innovation is said to be realized through the application of existing capabilities in new or improved ways. Organizational capabilities refer to the various skills that the company mobilizes to carry out its productive activities, the whole of this know-how being the product of the complex relations that maintain the resources, skills, and knowledge owned by the organization [31]. According to the RBV theory, innovation does not follow a deterministic logic but is closely linked to the firm's existing resources and its capacity to combine these resources in innovative ways [32]. However, innovation is a complex and dynamic process through which firms continuously generate innovation capabilities by integrating and reconfiguring new resources. Thus, innovation is assumed to play a key role in the exploitation of organization capabilities to achieve high growth [28]. This study aims to develop a framework for unpacking this nexus of relationships.

CONCEPTUAL CLARIFICATIONS

The corpus of empirical studies on HGFs, innovation, and capabilities is not without its fair share of controversies and contradictions occasioned by the lack of agreement on what the referents of the concepts and what they mean. Indeed, the popularity of these concepts among researchers has led to sometimes abusive and evasive uses, opening the door to multiple and sometimes divergent interpretations. Therefore, to better understand the relationship between capabilities, innovation, and HGFs, it is essential to define these three concepts first.

High Growth Firms (HGFs)

The concept of HGFs has been understood in several senses. Researchers generally understand the term as descriptive of a small group of firms across various industries who, because of their extraordinary performance, grow rapidly and account for most of the job growth in the given economy [33]. While this notion of HGF is fairly subscribed to by almost all researchers in the field, the point of divergence arises on the growth referents, indicators employed in measuring growth and the period of growth [34, 35]. For example, an index of widely used researchers is the Birch-Schreyer growth index. This index is a composite measure of employment growth [36] that combines Birch's [4] absolute and Schreyer's [5] relative growths. However, the proportion of firms deemed HGFs and the growth horizon differs from study to study. For instance, Long [37] considered the top 5% of firms with growth evaluated over 2 years, while Weinblat [38] selected the top 10% of firms that posted growth over 3-years. These problems are further deepened by the ongoing debate about how to measure firm growth: objective vs. subjective measures; single vs. multiple parameters, and using sales, assets, employee growth, etc. [39]. Furthermore, the extant approaches and parameters employed in the conceptualization differ from industry to industry [e.g., 40, 41], based on the economic status of the relevant host country [e.g., 37, 42], and even regions and global economic blocks [43, 44].

The importance of an appropriate definition of HGFs cannot be overemphasized. An inaccurate definition could include non-HGFs, exclude the truly HGFs, or altogether miss out the HGFs, thereby resulting in misleading policies and their inevitable failure. The work of Daunfeldt, et al. [45] buttresses this point. They show that the Eurostat-Organisation for Economic Co-operation and Development (OECD) definition of HGFs widely embraced by researchers in the field actually "excluded almost 95 percent of surviving firms in Sweden, and about 40 percent of new private jobs during 2005-2008" [45]. Circumspection is therefore suggested in defining HGFs.

Table 1: Definitions of HGFs by Ranking and Performance Approaches

Authors/Year	Definitions HGFs by Ranking (a)
Long [37]	HGF is a firm that is among the top 5% highest growth firms during a period of two years, growth is calculated based on the Birch-Schreyer growth index.
Weinblat [38]	An HGF is one whose Birch-Schreyer growth index falls within the top 10% of all firms from a given country over three years. In order words, an HGF is on with a growth of $\geq$ 90% quantile.
Daunfeldt, et al. [46]	HGFs are defined as 1% of firms in a given economy with the highest employment or sales growth over 3 years.
Authors/Year	**Definitions HGFs by Performance (b)**
Teruel and de Wit [42]	HGFs are firms with 50 to 1000 employees that have realized an average turnover growth of 20% per annum over the last three years.
Long [37]	HGFs are firms with at least 10 employees and annualized employment growth of 20% during 3 years.
Kang, et al. [47]	HGFs are firms that achieve a 50% or more sudden growth in sales or revenues within 4 years and thereafter maintain such growth rate for at least two years.

In general, two approaches to conceptualizing HGFs are discernible from the literature. The first is a ranking approach and defines HGFs as the top "percentage of companies in a population that experience the highest growth" (see Table 1a); the second is a performance-based approach and sees HGFs as "firms growing at or above a certain rate for an intensive, observable period" [20] (see Table 1b). These definitions are used in conjunction with some focal criteria including growth period, employment, turnover, customer demand, workforce strength, revenues, sales, etc. For this reason, we can say that HGFs differ based on the competitive strength upon which they individually attain high growth. Thus, we have employment HGFs, turnover HGFs, revenue HGFs, job creation HGFs, sales HGFs, innovation HGFs, etc.

There is, therefore, the need to streamline the conceptualization of HGFs using some framework that reflects these divergencies while being relevant to local peculiarities.

Organizational Capabilities

According to Penrose [48] in the 2009 edition of her seminal work on firm growth first published in 1959, the main factor that drives a firm's growth is organizational capabilities which she identified as slack managerial resources that could be used to exploit market opportunities and create new profitable projects. Such resources enable the firm to drive growth by drawing on and extending their knowledge of processes. Researchers have used the dynamic capabilities theory (DCT) to extend the RBV theory to postulate that resources alone are not enough to generate rapid growth, but these must be backed up by the requisite organizational capabilities. These capabilities refer to the body of collectively held and action-oriented knowledge that enables firms to do their business effectively [49]. It is this people-originated and worker-centered nature of organizational capabilities that underpins its strategic import as the resources that vitalize all other resources [50].

Table 2: Sample Definitions of Organisational Capabilities

Authors/Year	Operationalization of Dynamic Capabilities
Shen and Dai [51]	Organizational capabilities refer to the knowledge and skills embodied in people, knowledge embedded in technical systems, managerial systems, and the value assigned within the company to the content and structure of knowledge.
Pitelis and Wagner [52]	Organizational capabilities refer to a firm's ability to sensing and shaping opportunities and threats, seizing opportunities, and managing threats and reconfiguring the organization to maintain a sustainable advantage.
Mousavi, et al. [53]	Organizational capabilities have been defined as a triad of organizational routines by which firms achieve new resource configurations which include the identification and assessment of opportunities (sensing), mobilization of internal and external resources to produce and deliver values from the opportunities (seizing), and the continued renewal of resources to maintain the flow of value in tandem with the changing demands of the business environment (reconfiguring).

Because of the foregoing, and for this study, we follow Szalavetz [54] and Zouaghi, et al. [31] and define organizational capabilities a firm's ability to integrate, build and reconfigure it's internal (R&D expenditure, highly skilled researchers and technicians) and external (collaborative access to suppliers, customers, competitors, commercial research institutions and consultancy firms, private laboratories and consultants, universities and educational institutions, public and non-profit research institutions, trade fairs and exhibitions, technical conferences, specialist journals and literature, and professional associations) resources to address emerging challenges and opportunities in a rapidly changing business environment. However, our subscription to this definition is not meant to detract from the value of other conceptualization by other scholars a sample of which is presented in Table 2.

Strategic Innovation

According to Kanyuga [55], strategic innovation involves the implementation of new product ideas that entails significant improvements in design or packaging, placement, promotion or pricing. Strategic innovation is critical for orchestrating firm growth as it is an irreplaceable mechanism for creating competitive advantage, sustaining profitability over the long term, and generating superior value and ensuring business survival [56, 57]. The act of creating entirely new value or improving on exiting value proposition requires breaking current conventions and looking beyond the norm. The risk is enormous, but the returns ensure high growth in profits, market share, and firm valuation. Taking these facts into account, some scholars of strategy view innovation as sine-qua-non for achieving the uncommon growth that characterizes HGFs. Hence, strategic innovation is a key catalyst for the emergence and survival of HGFs. Indeed, it seems Schlegelmilch, et al. [58] had this in mind when they defined strategic innovation as "the fundamental reconceptualization of the business model and the reshaping of existing markets (by breaking the rules and changing the nature of competition) to achieve dramatic value improvements for customers and high growth for companies" [58].

Table 3: Sample Definitions of Strategic Innovation

Authors/Year	Definitions
Faghih, et al. [59]	"Strategic innovation entails understanding the existing model again through a method that creates new value for customers, confuses the competitors and slows down the new production of wealth" [59].
Kodama [57]	Strategic innovation entails strengthening and utilizing capabilities for a firm's existing business and pursuing greater operational efficiency while simultaneously searching out and building new capabilities in pursuit of the creativity needed in the development of new business models and new businesses of the future.
Sheng [60]	Innovation is described as a firm's ability to develop new products while targeting multiple markets and demonstrating knowledge integration across markets and local responsiveness to niche market opportunities.
Varadarajan [61]	"Innovation is the creation of value by using relevant knowledge and resources for the conversion of an idea into a new product, process, or practice, or improvements in an existing product, process, or practice" [61].

Strategic innovation has been treated as the search for newer organizational capabilities or the creation of capabilities for growth. One implication of this treatment is that resources as capabilities are not enough to generate rapid high growth.

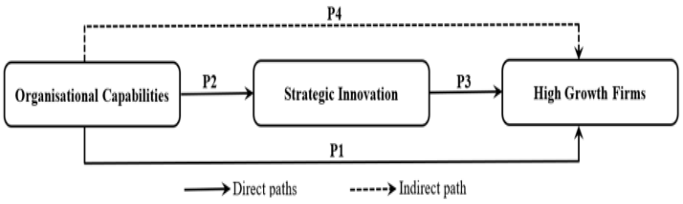
There must be an innovative drive that wrests the critical competitive edge from competitors and places the firm on the path of unrivaled growth through developing new business models, creating new values, responding to profitable niche market opportunities. This suggests that strategic innovation is one of the mediating mechanisms that help translate the power of organizational capabilities into high growth in firms' important bottom lines. All these diverse currents of innovation could be seen in the various conceptualization of strategic innovation in the most recent literature (see table 3).

RESEARCH MODEL AND PROPOSITIONS

The purport discernible from the preceding sections of this paper is that the RBV theory adequately explains the relationships that may likely subsist between organizational capabilities, strategic innovation and the emergence of HGFs. The RBV theory holds that strategic resources (including organizational and innovation capabilities) could be used to explain the comparative advantage enjoyed by some firms that propel such firms to become HGFs. In other words, resource advantages confer firms with a competitive advantage, and this advantage is enhanced by the firms' strategic innovation in generating the necessary changes needed for high growth [62-65]. Thus, while natural resources base is important to actualize rapid growth, its advantages can only be realized where they are innovativeness used to generate fast growth. It is because of this position that this study, on the basis o the available empirical literature, generates three broad propositions that may serve as a guide to future research.

Based on foregoing discussions, the researchers posit that high growth is brought about through the mechanism of strategic innovation that helps transform organizational capabilities into unique resources thereby conferring on the firm clear competitive advantage with respect to the market segment the firm serves. Thus, strategic innovation is a critical capabilities-enhancing factor in firms' quest to becoming truly HGFs. Accordingly, the researchers developed the two-path model shown in Figure 1 from which four propositions were drawn.

Figure 1. Research Model



It should be noted the proposition on the strategic innovation–HGFs was made on the assumption that researchers may investigate some relationships involving the three variables in this study where strategic innovation is treated as an exogenous variable. Otherwise, this proposition does not hold based on the principle underpinning the product method of single-mediator analysis [66]: that three hypotheses should be tested in a two-path mediation. This implies that in the case of this study, researchers should test for the direct relationships between organizational capabilities and HGFs, and between organizational capabilities and strategic innovation; and the indirect relationship between organizational capabilities and HGFs through strategic innovation.

Organizational Capabilities and HGFs

Empirical studies have shown that there are multiple ways through which firms could achieve high growth. However, the nature and potency of available capabilities are known to exert considerable influence on how firms transform into a HGFs. In a qualitative study involving 100 CEOs from 89 Spanish HGFs, Barbero, et al. [65] found that there is no single way to achieve high growth and that managerial capabilities influence the success of growth strategies. Similarly, Kang, et al. [47] studied 234 Korean firms that achieved high growth through the large-jump pathway. Their results show that results that the firms' investment in R&D and R&D collaboration increased the firms' chances of achieving large jumps which in turn turns them into HGF; and that persistent investment in R&D investment and internal capabilities is required in order to sustain the high growth status. However, contrary to the result reported in Kang, et al. [47], Daunfeldt, et al. [46] found that R&D intensity has a negative or no effect on the share of HGFs, regardless of how the HGFs were defined but confirms Barbero, Casillas, and Feldman's [65] findings that human capital capabilities predispose firms towards becoming HGFs in knowledge-intensive service industries.

Considering these arguments, and based on other similar findings by Fernández-López, et al. [67], Wu and Shu [68], etc., we advance the following proposition:

Proposition 1 (P1): That organizational capabilities positively predispose firms towards becoming high-growth firms, but this is contingent on the nature of the industry and intensity of investment made on developing the industry-relevant organizational capabilities.

Organizational Capabilities and Strategic Innovation

According to the DCT [69], organizational capabilities do not necessarily confer firms with the competitive advantage they require to reach the status of HGFs. Whatever organizational capabilities firms possess must be vitalized by the innovativeness of managers within the firms. Peris-Ortiz, et al. [70] verified this theoretical explanation when showed that managerial capability is a necessary condition for innovation especially with regards to radical innovations (in products and services and in processes) and incremental innovations (in product and service). It was also shown that demographics of owner-manager influence a firm's capability assembling strategy and are therefore an important factor for the innovation performance of SMEs [71]. Thus, firms, especially smaller and younger ones, must have internal resources and capabilities in order to innovate successfully [72]. Such capability-driven innovation performance of firms is more pronounced in the IT industry [73].

Considering these evidence establishing a direct linkage between organizational capabilities and strategic innovation, we propose as follows:

Proposition 2 (P2): That innovativeness of firms is contingent on access to relevant organizational capabilities especially managerial capabilities.

Strategic Innovation and HGFs

The positive effect of firms' strategic innovation on performance is almost a settled science in the field of strategic management. Research on this relationship is important because of firms known to innovate in order to grow fast face higher risks. The innovative profile of firms encourages the development of their internal knowledge utilization and this is a critical activity required in developing firms' growth potentials. Several empirical studies have attested to this. For example, in their quest to answer the question "Does firm innovation lead to high growth?", Grijalva, et al. [74] studied a sample of 993 Ecuadorian firms and conclude that "younger firms and firms that spend more on R&D activities per employee have significantly higher levels of employment growth and are significantly more likely to become employment HGFs" [74]. Several other empirics such as Maldonado-Guzmán, et al. [75] have reached similar conclusions based on various growth measures. However, extant literature does not adequately show firms' innovative capabilities directly impact their growth. Furthermore, the type of innovation for high growth differs from country to country. Segarra-Blasco, et al. [76] substantiated this assertion when they discovered that "Technological innovations promote the likelihood of core countries of Europe becoming an HGF, non-technological innovations are a key determinant for Mediterranean European countries, and in New European Union members the drivers are more related to firm characteristics and international trade" [76]. Industry type also plays a role in the effect of innovation on firm growth, with the differences being marked along with the manufacturing–service divide. A study of 3,807 Spanish firms shows that R&D investments positively affect the probability of being an HGF but with significant differences between manufacturing and service firms, and quantile estimations show that internal R&D has a significant and positive impact on upper quantiles, while external R&D has a significant positive impact up to the median [77]. Lastly, the firm age also features in the innovation–growth equation. To this end, Coad, et al. [78] found that younger firms face larger growth benefits from R&D innovation at the upper quantiles of the growth rate distribution.

Considering this context-sensitive nature of innovations' impact on HGFs emergence, we, therefore, advance the following proposition:

Proposition 3 (P3): Contingent on firms' country, industry, and age, strategic innovation has a significant positive effect on the growth potentials of firms.

Organizational Capabilities, Strategic Innovation, and HGFs

Considering the three propositions advanced so far, organizational capabilities may have a positive indirect effect on HGFs through strategic innovation. Given the hypothesized positive effect of organizational capabilities on firm fast growth (Proposition 1), the postulated positive effect of organizational capabilities on strategic innovation (Proposition 2), and the posited positive effects of strategic innovation on firm fast growth (Proposition 3), strategic innovation may have an indirect positive influence on firm fast growth. The empirical literature supports this proposition. For example, Ngo, et al. [79] found reveal that 35% of the total effect of technology-sensing capability on firm performance is partially mediated through exploratory innovation and that 37% of the total effect of market-sensing capability on firm performance is also partially mediated via exploitative innovation. Similarly, Zhou, et al. [80] found that innovation, especially technological innovation, mediates between dynamic capabilities and firm performance. But while some of these empirics report full mediation effects, others report only partial mediations. For instance, Fernando, et al. [81] show that service innovation capability partially mediates the relationship between environmental innovation and sustainable business performance.

Proposition 4 (P4): Strategic innovation has a full or partial mediating influence on the relationship between organizational capabilities and the fast growth of firm.

CONCLUSION

The objective of this paper is to justify a research model that could be used in investigating the relationships that subsist between organizational capabilities and strategic innovation and how these are instrumental in the emergence of HGFs. To this end, a research model was developed which explains the relationships investigated. Based on this model, the researchers propose that organizational capabilities will have a positive influence on the emergence of HGFs; that organizational capabilities will have a positive influence on firms' strategic innovation; that firms' strategic innovation will have a positive influence on the rise of HGFs; and that strategic innovation will have some mediating effects on the relationships between organizational capabilities and firms' high growth potentials.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The propositions advanced in this study on the possible relationships that may subsist between organizational capabilities, strategic innovation, and HGFs were based on the generic operationalization of the variables in question. However, when disaggregated, each of the variables is made up of several lower latent factors that may require independent investigation as stand-alone constructs. For example, strategic innovation has been operationalised as administrative innovation [82], product innovation [83], process innovation [84], etc. Such is the case with the other two study variables as could be discerned from the conceptualizations made in this study. The model offered in this study and its explanatory propositions are therefore constrained to the extent that they do not reflect the specifics of specific countries, industries, or institutions. It is therefore suggested that while the model seems testable as it is, a researcher might find it profitable to look deeper into the underlying factors of each of the three study variables to ascertain which among them truly accounts for the hypothesized relationships.

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