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Organizational Ambidexterity in SMEs including Distribution Firms: An Investigation of Firms' Entrepreneurial and Managerial Efforts

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Abstract

Purpose - Corporate activities for enhancing and improving corporate performance can largely be divided into exploration and exploitation. The purpose of this study is to examine the impact of implementing organizational ambidexterity in SMEs, including distribution firms, by reviewing the extant literature and deriving the basis on which this strategy affects the managerial performance.

Research, design, and methodology - The study uses a systematic review methodology, which employs a structured process to discern trends and meaningful themes across a wide body of literature on specific subjects and research questions. This qualitative study examined the influence of ambidextrous strategies of SMEs on firm performance, and the results were synthesized from the literature.

Results - Organizational ambidexterity in SMEs is related to the firm's managerial performance. However, it is crucial to know that there are many ways to generate an ambidextrous organization, and decisions about what method to choose should be based on the environmental aspects of the enterprise.

Conclusions - The following aspects should be considered for execution; : making practical decisions based on accurate information about the resources the firm has, considering the organizational level of human resources for implementing organizational ambidexterity, and sharing specific performance goals.

Keywords: Organizational Ambidexterity, Organizational Learning Theory, Exploitation, Exploration, Entrepreneurial Orientation.

JEL classifications: D83, L16.

1. Introduction

People call our age an "era of disruptive innovation". Many researchers and practitioners use "disruptive innovation," which was first introduced by Clayton Christensen in a 1995 Harvard Business Review, to describe any situation in which an industry is agitated and previously successful incumbents stumble (Gobble, 2016; Christensen, Raynor, & McDonald, 2015). The same phenomenon is occurring not only in the distribution industry but also in the industrial sector where the overall SMEs belong. To understand disruptive innovation, we need to take a look at what is happening in the market now. Companies with more than 100 years of history are losing market share to young enterprises in the global market cap, and new entrepreneurs worldwide are growing at a frightening pace. Indeed, by the end of 2018, more than 293 unicorns, which are defined as a privately held startup company with a current valuation of US $1 billion or more, will have been born. As a representative example, Airbnb, which does not own a single room, has already surpassed the market cap of the real estate giant Hilton, and Uber Technologies, which does not own a single car, has beaten the market cap of Hertz that owns a million. Therefore, it is better to understand that many disruptive phenomena exist in the marketplace, rather than discussing which companies are fit for disruptive innovation.

Many new entrepreneurs and their rapid growth stem from environmental reasons. New firms emerge and grow because the environmental or entrepreneurial ecosystem facilitates entrepreneurs' action (Audretsch & Belitski, 2016; Carayannis, Provance, & Grigoroudis, 2016). A rapidly

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advancing entrepreneurial ecosystem has been established, in which entrepreneurs are growing. As the environment for an entrepreneur has improved, market volatility has been quite high, and the speed of technological development has accelerated. In other words, these changes may have generated an appropriate environment for entrepreneurial competition.

However, we could also observe reasons for the intrinsic attributes of entrepreneurs who are concentrating on solving market problems or customer inconveniences. Entrepreneurs are not exactly rich in resources, as resources are not abundant and applying causation process to set a purpose and then place resources appropriately is difficult (Sarasvathy, 2001). Entrepreneurs explore what they can do based on the given means and produce results. In the present study, a startup's market approach is being studied with an effectuation process, which creates a certain effect that is based on a given mean or resource. Sarasvathy (2001) described that "effectuation processes are excellent at exploiting contingencies." This process allows entrepreneurs to create several possible effects depending on how to set up goals and make use of contingencies.

By contrast, large firms manage their cumulative resources efficiently and maximize the exploitation of their resources. However, in today's environment where uncertainty and volatility of the market are remarkably high, exploration activities should be performed simultaneously because the exploration activities allow companies to capture opportunities for new business, products and technologies. Thus, exploitation and exploration activities are essential for large firms. Firms should build an adaptive process balancing between the exploration of new possibilities and the exploitation of old certainties (Kuran, 1988). In fact, despite its necessity for firms, finding a balance between exploitation and exploration is difficult since they compete for scarce resources (March, 1991). Although balancing exploitation and exploration is difficult, firms have been taking diverse approaches to perform these two activities. The organization's ability to pursues these two activities is called organizational ambidexterity. Hence, large firms are attempting to shape their organizational ambidexterity to "exploit" existing resources efficiently and "explore" new business opportunities. Recently, many firms have adopted an ambidextrous strategy to operate their organizations for long-term performance and survival (Junni, Sarala, Taras, & Tarba, 2013; Jansen, Simsek, & Cao, 2012).

However, this study focused on firms that are thriving with scarce resources, such as small to medium-sized enterprises including growing startups (hereafter referred to as SMEs), rather than large firms. The ambidextrous strategy is for a "firm" that pursues efficiency and effectiveness in management; however, SMEs are not small versions of large firms, hence the way of implementing the organizational ambidexterity and the effect of the implementation could be different. In addition, since exploration and exploitation activities compete for scarce resources in a firm, SMEs face even greater challenges due to their lack of resources and managerial capabilities when pursuing ambidexterity (Lubatkin, Simsek, Ling, & Veiga, 2006).

The purpose of this study is to examine the impact of implementing organizational ambidexterity in SMEs by reviewing the extant literature and deriving the basis on which this strategy affects the managerial performance in SMEs. Do these organizations, which were developed on the basis of the effectuation process after startup, choose an organizational ambidexterity? Can SMEs expect the same effect as large firms through the organizational ambidexterity? Thus, the following is the research question for this study: "What is the impact of organizational ambidexterity on firm's performance in SMEs?" Although scholars have studied this emerging topic for more than 15 years, there has been limited research conducted in the field of SMEs. This study is also important for SMEs' top management teams to make proper decisions for the firm's sustainable growth.

2. Literature Review

2.1. Exploitation and Exploration by Organizational Learning Theory

Scholars trace the origin of organizational learning theory from A Behavioral Theory of the Firm in 1963, a masterpiece of the Carnegie School, led by James March and his colleagues, and identify four theoretical streams; studies of organizational adaptation, attention, learning from experience, and performance feedback model. Among these studies, organization adaptation, which is the core concept of A Behavioral Theory of the Firm, provides the concept of an organization as an adaptively rational system in an uncertain environment and the necessity of exploitation and exploration for sustainability of the organization. Therefore, this study applies the organizational learning theory from the perspective of adaptation of firm in the uncertain environment.

As suggested by March (1991), corporate activities for enhancing and improving corporate performance, in terms of organizational learning theory, can largely be divided into exploration and exploitation, and organizations are constantly confronted with making a choice between these two conflicting activities (Gibson & Birkinshaw, 2004). March (1991) states that these activities require different organizational structures, strategies, and environments. Exploration and exploitation are essential activities for firms, but many existing studies consider them to be conflicting, thus implying the need for a trade-off. Exploration includes search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation. Exploitation includes refinement, choice, production, efficiency, selection, implementation, and execution (March, 1991, p.71). In other words, both the mindsets and organizational attributes needed for exploration are radically different from those for exploitation (Jansen, Van den Bosch, & Volberda, 2006).

Expanding upon the arguments related to organizational ambidexterity, a resource-based view (RBV) was considered for this research in to explain how a firm responds to an uncertain environment based on resources owned by the firm. RBV proposes that a firm's strategic posture interacts with valuable tangible or intangible resources to produce various outcomes (Newbert, 2006). Although the concept of RBV has been implied by many scholars, it is suitable for exploitation but is not as suitable for exploration because the theory is mainly focused on the utilization of internal resources. For this reason, the process from the viewpoint of adaptation suggested by organizational learning theory is better suited for this study.

However, it is not easy to maintain a good balance between the two and firms are more likely to focus on a strategy of either exploration or exploitation activities. This leads to a path-dependent tendency, which can increase the inertia of the organization and lead to risk. On the one hand, a company will only increase the cost of trying new ways to profit if a firm focuses exclusively on exploration, which could result in failure traps because of insufficient compensation. On the other hand, firms are more likely to fall into a competency trap where the capacity to adapt to environmental changes and new opportunities is reduced if it focuses exclusively on exploitation (Levitt & March, 1988).

Therefore, this study focuses on the balance between exploitation and exploration for adaptation of the firm based on the organizational learning theory.

2.2. Entrepreneurial Orientation & Corporate Entrepreneurship

In 1983, Danny Miller studied how entrepreneurship can make a firm entrepreneurial when many studies had only focused on individual entrepreneurship and suggested the starting point for the conceptualization of entrepreneurial orientation (EO). On the basis of Miller's (1983) concept, Covin and Slevin (1989, 1991) and Lumpkin and Dess (1996) further defined EO through their studies. Covin and Slevin’s (1989, 1991) work emphasized how the environmental context affects strategic management differently. Lumpkin and Dess’s study extended the concept by adding two factors—autonomy and competitive aggressiveness—to the three components of EO proposed by Miller (1983): proactiveness, innovativeness, and risk-taking. The continuing expansion of research on EO led to the study of corporate entrepreneurship (CE), i.e., how large organizations employ entrepreneurship.

EO provides a perspective on how the components of other firms affect more or less, entrepreneurship and how they play a role in the survival and growth of the firm. In this regard, CE was developed on a continuous line; however, it is different from an EO perspective. Covin and Miles (1999) presented the three most common situations of CE: (1) when an existing organization starts a new business, (2) when an individual supports an idea for a new product in the corporate environment, and (3) an “entrepreneurial” philosophy with respect to the whole organization’s prospects and operations. Zahra and Covin (1995) defined the concept of CE from the perspective of a firm pursuing innovation, and explained how the components of CE relate to EO. Therefore, this study focuses on the activities of SME organizations to actively capture new business opportunities from the perspective of EO and CE.

2.3. Organizational Ambidexterity in SMEs

The exploration and exploitation activities are essential for organizations (March, 1991). Organizational ambidexterity refers to the ability of an organization both to explore and exploit (O’Reilly & Tushman, 2013). Organizational ambidexterity—or the ability to pursue and synchronize exploration and exploitation (Tushman & O’Reilly, 1996)—has been suggested as essential for long-term performance and survival of organizations (Junni et al., 2013; Jansen et al., 2012). Furthermore, organizational ambidexterity is, as the original theory suggests, associated with firm performance (O’Reilly & Tushman, 2013). In fact, many empirical studies suggest that ambidextrous organizations have a positive effect on firm performance (He & Wong, 2004; Lubatkin et al., 2006). In 1976, Duncan contended that successful organizations are all ambidextrous.

However, SMEs face even greater challenges when pursuing ambidexterity than large firms (Lubatkin et al., 2006). Much of the literature has focused on large multiunit organizations, and therefore, the complexities of achieving ambidexterity in SMEs have prompted various calls for future research (Raisch , Birkinshaw, Probst, & Tushman, 2009; Simsek, Heavey, Veiga, & Souder, 2009). SMEs require new logic to manage their resources effectively and introduce entrepreneurial bricolage, which is defined as “making do by applying combinations of the resources at hand to new problems and opportunities” (Baker & Nelson, 2005, p. 333). The ability of SMEs to leverage their scarce resources effectively and to behave ambidextrously depends on managerial capabilities and competencies.

There are two ways in which firms can become ambidextrous, and they are based on a distinction that divides contextual ambidexterity in terms of its role in complementing structural ambidexterity from the traditional perspective. First, structural ambidexterity is the exploration and exploitation of individuals or groups that are separated according to the organization’s plan (Raisch & Birkinshaw, 2008). When opting for this approach, organizations use separate units for exploration and exploitation. Second, contextual ambidexterity performs both exploration and exploitation at an individual level and is defined as the ability to focus on regular activities and to adapt to new ones in the same business unit (Gibson & Birkinshaw, 2004).

To summarize, structural ambidexterity is the exploration and exploitation of individuals or groups, each of which is classified according to the organization's strategic plan. By contrast, contextual ambidexterity is to alternatively perform both exploration and exploitation at the individual level. Thus, contextual ambidexterity is more flexible than its structural counterpart, and the activities are clearly distinguished. However, when performing contextual ambidexterity, the ability of the individual to deal with exploration and exploitation and the role of the manager become extremely important (Lubatkin et al., 2006; Mom, Van Den Bosch, & Volberda, 2007).

In particular, SMEs should pursue being an ambidextrous organization by constructing effective organizational mechanisms for balancing exploration and exploitation. Therefore, this study focuses on the relationship between performance and organizational ambidexterity, which performs both exploitation and exploration activities as CE at the SME organization level.

3. Conceptual Framework

Regarding the degree of exploitation and exploration, the difference between existing large firms and existing SMEs including startups is indicated in Figure 1 (Gedajlovic, Cao, & Zhang, 2012). Quadrant 4 (Q4) represents the existing firms that operate within the organization pertaining to exploitation, and Q1 represents the SMEs that operate within the organization pertaining to exploration. The direction from Q4 to Q2 is the path of the organizational ambidexterity that shows strengthening the exploration of existing firms who have a weak exploration function, and the direction from Q1 to Q2 is the path that shows strengthening the exploitation of SMEs who have weak exploitation functions. Ferrary (2011) also showed the changes in a firm's internal processes after conducting M&A with startups. Startup mainly focuses on the exploration activities; however, after acquisition, the firm operates mainly for exploitation. The Ferrary study implies that it is difficult to execute both exploitation and exploration unless the firm does both with intention. In previous studies, the selection of a firm's organizational ambidexterity has signified that the organization affects firm's performance and survival by executing both exploitation and exploration functions (O'Reilly & Tushman, 2013; Lubatkin et al., 2006; 2004; He & Wong, 2004). In the meantime, research has been conducted mainly on large firms. The focus of this study is to examine the SMEs who are implementing organizational ambidexterity and analyzing its impact on the SMEs' managerial performance. Thus, as illustrated in Figure 2, a conceptual framework was constructed for this study.

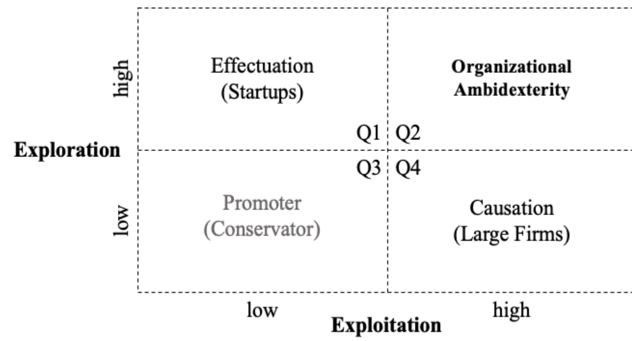

Figure 1: Theoretical framework (Modified from the work of Gedajlovic et al., 2012)

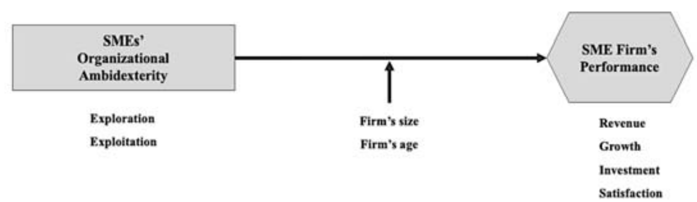

Figure 2: Conceptual framework (Source: own elaboration)

During the growth phase, it is vital to exploit existing tangible and intangible resources for SMEs. At the same time, they should not lose an entrepreneurial approach to capture market opportunity, which is why they have succeeded so far. Moreover, since the resource and management capacity of SMEs is relatively insufficient compared with large firms; therefore the relationship between SME's organizational ambidexterity and performance needs to be closely investigated in a variety of contexts.

4. Methodology

This study uses a systematic review (SR) methodology, which employs a structured process to discern trends and meaningful themes across a wide body of literature on specific subjects and research questions. SR is appropriate for this study because, through it, we can examine a variety of empirical studies pertaining to organizational ambidextrous approaches in SMEs and their performance. Thus, the SR approach allows us to examine the state of the research question in a short time. Finally, this approach allows us to take advantage of sophisticated and well-structured search and synthesis techniques to draw meaningful conclusions about ambidexterity approaches in different ways. Through this approach, a search strategy is chosen to reduce bias and articles are reviewed for relevance and quality, including the type of study under consideration. For this analysis, specific inclusion or exclusion criteria were applied in the search process.

The final research question was searched in the UMUC library using Boolean operators, quotes, and asterisks. Table 1 shows in detail which search strings were used to conduct this research. The process of such research is considerably iterative, and the relevant evidence was closed in on gradually. Remarkably narrow search strings in the first and second trials were used to develop the research question and refine the research results. This process was repeatedly performed to achieve a manageable sized number of search results for the analysis.

Based on these results, the inclusion/exclusion criteria (Table 2) for screening the selected articles were selected to best support the research question. Articles that were not in the English language were excluded. The "ambidexterity" of the organization was first proposed by Tushman and O'Reilly in 1996, and the disruptive innovation was conceptualized in 1997 by Christensen's Innovator's dilemma. I have used this study only since 2000, when I think that the related research can be started and spread considering the point of time when the two concepts are proposed. Therefore, articles published before 2000 were excluded. All articles were obtained from the primary academic database, Business Source Complete.

A total of 21 articles were selected, from which the abstract and keywords of each article were searched carefully for relevance to the current topic, leaving only 10 articles that were relevant in answering the research question. The 10 final articles selected for SR and are the basis of the analysis are written by the following authors: Ikhsan, Almahendra, and Budiarto (2017); Parmentier and Picq (2016); Chen and Kannan-Narasimhan (2015); Tan and Liu (2014); De Clercq, Thongpapanl, and Dimov (2014); Hsu, Lien, and Chen (2013); Patel, Messersmith, and Lepak (2013); Chang and Hughes (2012); Hughes, Martin, Morgan, and Robson (2010); and Han and Celly (2008).

In assessing the quality of these 10 articles, trustworthiness must be analyzed using TAPUPAS tool, which provides the common criteria to assess the research. In particular, TAPUPAS represents a group of quality characteristics, each of which is evaluated and synthesized to determine the overall quality of the study. Each article was assessed according to its transparency, accuracy, purposiveness, utility, propriety, accessibility, and specificity. Each TAPUPAS criterion was compared and applied in analyzing the 10 articles. Table 3 contains the scores for each article's evaluation. Appraisal criteria were evaluated using a score of 3 = high quality (strong), 2 = medium (moderate), and 1 = low quality (weak).

Table 1: Search Strings and Search Condition

Trial	Search strings	Condition	Search results
1	(ambidexterity OR organizational ambidexterity) AND SME	Scholarly journal Full-text	68
2	ambidext* AND (SME or venture) AND performance	2012 - 2018 Scholarly Journal Full-text	48
3	ambidext* AND (SME OR venture OR startup) AND (performance OR outcome OR success)	2008 - 2018 Scholarly Journal Full-text English	59
4 (Final)	ambidext* AND (SME OR venture OR startup) AND (performance OR outcome OR success)	2000 - 2018 Scholarly journal Full text English Business Source Complete	21

Table 2: Inclusion/Exclusion Criteria

Parameter	Inclusion criteria	Exclusion criteria
Relevant topic to SMEs and performance	Yes	No
Language	English	All other languages
Year of publication	2000 - 2018	Before 2000
Publication type	Full-text scholarly peer-reviewed articles	Magazine, trade journals, videos, etc.
Type of result	Performance, outcome, success	n/a
Content provider	Business Source Complete	All other databases

Table 3: Assessment of 10 studies using TAPUPAS

No.	Source	Transparency	Accuracy	Purposivity	Utility	Propriety	Accessibility	Specificity
		Is it open to scrutiny?	Is it well-grounded?	Is it fit for the purpose?	Is it fit for use?	Is it legal and ethical?	Is it intelligible?	Does it meet source-specific standards?
1	Ikhsan, Almahendra & Budiarto (2017)	3	3	3	2	3	2	3
2	Parmentier & Picq (2016)	2	2	2	1	2	2	2
3	Chen & Kannan-Narasimhan (2015)	2	3	1	1	2	3	2
4	Tan & Liu (2014)	3	2	3	2	2	3	3
5	De Clercq, Thongpapanl, & Dimov (2014)	3	3	2	3	3	3	3
6	Hsu, Lien & Chen (2013)	2	3	3	3	2	2	3
7	Patel, Messersmith & Lepak (2013)	3	3	3	2	3	3	3
8	Chang & Hughes (2012)	3	3	3	2	2	3	3
9	Hughes, Martin, Morgan & Robson (2010)	2	3	3	2	2	3	3
10	Han & Celly (2008)	3	3	2	2	3	3	3

Note. Appraisal criteria: 3 = high quality(strong); 2 = medium(moderate); 1 = low quality(weak)

Additionally, Table 4 summarizes the total scores and the summary of study context and construct of each article. The articles were evaluated using seven criteria (TAPUPAS), and the scores were added together to obtain the summary score. The higher the number means the better the quality of the article as determined through the evaluation.

The result of the summary shows that the highest score was 20 and the lowest score was 13 out of 21. Since the score 14 was moderate, only one article was below the moderate score. Although the lowest score article was case study and the topic is not exactly fit for this study, there are some meaningful implications about contextual ambidexterity for small organizations and so it was decided to include this article for the analysis. Thus, all of the 10 selected articles were coded for the analysis.

Based on the core concept presented in the research results of each article, themes were derived through first- and second-cycle coding. First-cycle coding is the first step in reducing the presented concept to a single word or phrase that can have profound implications in the future. Second-cycle coding is the process of re-wording and re-grouping coded words or phrases into the most frequent or significant codes in the prominent category. The coding process of each article was categorized through iteration, as summarized in Table 5.

All 10 articles covered the main subject of ambidexterity, but one of the articles was not specifically related to the topic of the firm's performance and its study approach and construct also differed to a certain extent. Due to this topic and context issue, part of the contents of the article were extracted. For the synthesized conclusions, the categorization process of each article was set up similarly, and subsequently, the similarly coded data were grouped in the second coding (axial coding).

Recently, programs for qualitative research such as NVivo, Atlas, and Quirky have been developed; however, all coding works still needs to be done manually. While the program could be accurate, instead of mechanically extracting the words in the article, both the contents and the content of the words implied by the context were manually captured.

Table 5: Coding for the Articles

Concepts	Source	Category	Axial Code
Strategy	Hughes, Martin, Morgan, & Robson (2010); Han & Celly (2008)	Influence on ambidexterity	Influence factors
Leadership	Chang & Hughes (2012)		
Market orientation	Tan & Liu (2014)		
HR system	Messersmith & Lepak (2013)		
Contextual ambidexterity	Ikhsan, Almahendra, & Budiarto (2017); Parmentier & Picq (2016)	Condition	Input (causes)
Organizational culture			
Innovation	Han & Celly (2008); Chang & Hughes (2012)		
Innovation ambidexterity	Hughes, Martin, Morgan, & Robson (2010)		
International	Hughes, Martin, Morgan, & Robson (2010); Han & Celly (2008); Hsu, Lien, & Chen (2013)	Context & Process	Mechanism
Organization learning process	Ikhsan, Almahendra, & Budiarto (2017), Tan & Liu (2014)		
Formal integration	Chen & Kannan-Narasimhan (2015)	Post-application	Outcomes
Creativity	Parmentier & Picq (2016)	Non-financial result	
Customer's satisfaction	Ikhsan, Almahendra, & Budiarto (2017)		
Performance (financial or in general)	Hughes, Martin, Morgan, & Robson (2010); Ikhsan, Almahendra, & Budiarto (2017), Chang & Hughes (2012); Hsu, Lien, & Chen (2013)	Result	
Profit and growth	Han & Celly (2008); Patel, Messersmith, & Lepak (2013)		

5. Findings

This qualitative study examined the influence of ambidextrous strategies of SMEs on firm performance and the results were synthesized from the literature. The 10 articles selected for the study yielded varied results. Each article studied the ambidexterity of organizations. Although the same variables were not studied in all articles, see Table 4, six of the dependent variables in the empirical studies confirmed the relationship between the variable and the performance of firms. In addition, three of the dependent variables confirmed the positive relationship conditionally.

Ambidexterity is a concept to enable both exploitation and exploration; therefore, various terms such as innovation, marketing, or international were used together with the terminology of ambidexterity. In particular, all 10 selected articles studied SMEs, thus providing sufficient implications for the research question of this study. The results of the nine articles indicated that an ambidextrous strategy that is utilized in SME organizations is associated with corporate performance. One of the 10 articles discussed corporate structure design rather than performance, which is about integration mechanisms that enable collaboration between corporate venture units and core business units.

The results are as follows: first, according to Hughes et al. (2010), innovation ambidexterity is positively linked to venture performance. Ikhsan et al. (2017) also demonstrated that contextual ambidexterity has a significant impact on the performance of SMEs in creative industries.

Conversely, Parmentier and Picq (2016) found that ambidexterity is difficult to apply in SMEs. In particular, the ambidextrous organizational model based on separating exploration and exploitation activities into sub-entities that are structurally distinct is not appropriate for SMEs. In sum, such structural separation ordinarily is not reasonable for SMEs (Lubatkin et al., 2006). Thus, contextual ambidexterity that alternates exploitation and exploration activities in the same business unit seems more suited to small organizations such as SMEs including startups.

However, conflicting results have also been found. For example, Han and Celly (2008) described that findings of their study were contrary to the extant literature that new ventures find it difficult to imitate the strategies of larger firms due to their resource constraints. Therefore, flexible thinking is required to implement contextual or structural ambidexterity based on the context of the firm.

6. Discussion

The purpose of this study was to examine the impact of implementing organizational ambidexterity in SMEs by reviewing the extant literature and deriving the basis on which this strategy affects managerial performance in SMEs. By referring to the concept of ambidexterity, Duncan argued that all successful organizations were ambidextrous ones. O'Reilly and Tushman (2004) also explained that more than 90% of ambidextrous organizations can effectively perform incremental, architectural, and discontinuous innovations. Moreover, many recent empirical studies suggest that ambidextrous organizations have a positive effect on corporate performance (Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004; Lubatkin et al., 2006). By researching the literature, this study focuses more on SMEs, and the following section summaries the content of the 10 selected articles with several important insights:

6.1. The Structure of the Organization is Important

The design of the organizational structure is highly relevant to corporate performance. The complexity of designing an enterprise structure by considering the resources, capabilities, and environment of a company affects the survival of a long-term enterprise. In this aspect, the innovation ambidexterity literature has principally been advanced around the issue of structure and innovation architecture. Ambidextrous structures require trade-offs between exploitation and exploration by putting in place appropriate behaviors, and therefore, organizations should allow employees to perform both forms of innovation interchangeably.

6.2. Performance in a Variety of Ways

According to Ikhsan et al. (2017), contextual ambidexterity is an important construct for understanding the dynamic landscape of SMEs. However, the ambidextrous organization has various approaches available to it and one method should not be applied collectively to the whole situation. Chang and Hughes (2012) insist that structural ambidexterity is both theoretically and statistically relevant to SMEs. Therefore, it is necessary to decide what approach to adopt when considering the contextual aspect (or environment) to which the firm belongs.

6.3. Focus on Factors that Affect Initiative

Leaders and top management team can use their management approach in conjunction with achievable structural design to shape and strengthen these changes, and therefore, the leadership of a firm has a decisive influence on the organization’s ambidexterity strategy. In addition, Messersmith and Lepak (2013) indicated that firms implementing a corresponding set of HR practices form an HR system that assists in developing the resource flexibility necessary to produce ambidexterity, which linked to firm growth. In smaller organizations, not only do company leaders play a key role between exploration and exploitation activities, but they also foster ambidexterity through creative team management practices. Finally, balancing responsive and proactive market orientations assists SMEs in pursuing innovation ambidexterity (Tan & Liu, 2014). Therefore, it is necessary to closely capture the factors that may affect the change of the organization.

7. Practical Implications

This study examined the relationship between organizational ambidexterity in SMEs and their managerial performance. According to the findings of this study, some attention is required to execute organizational ambidexterity in SMEs as they are relatively insufficient in resources and managerial capacity compared to large firms. First of all, because organizational ambidexterity executes both exploitation and exploration in a trade-off relationship, it is necessary to make executive/practical decisions based on accurate information about the resources the firm has. When the firm’s resources are not abundant, the deviations of resources (failure to balance between exploitation activity and exploration activity) may pose a risk to the business. Next, SMEs need to consider the organizational level of human resources for implementing organizational ambidexterity. Organizations with high individual creativity and autonomy may use contextual ambidexterity, and apply structural ambidexterity when employees are focused on job accuracy rather than creativity. Finally, firms may expect improved performance when sharing specific performance goals, since with organizational ambidexterity, the members should set key performance indexes. Performance could be targeted regarding financial and non-financial factors such as sales, job creation, employee satisfaction, and consumer satisfaction. These endeavors could move the entire organization toward a sustainable growth path.

8. Limitation and Future Research

This study has several limitations. First, the different performance measurements were not able to be further distinguished because of the limited number of articles reviewing the performance. This case is particularly pertinent in limiting the analysis of moderators described in the conceptual model. Future research on organizational ambidexterity in SMEs is needed to review the impact of moderating effects of firm size, age, and industry. In addition, more research is needed to explore the correlation of execution timing and performance so that entrepreneurs whose firm is currently growing would know when to execute.

9. Conclusion

The main purpose of this study was to examine organizational ambidexterity in SMEs and the impact that it had on performance. This study provides insight regarding the research question, "What is the impact of organizational ambidexterity on firm's performance in SMEs?"

To derive the answer to the research question, a systematic review (SR) methodology provided the research approach for identifying and reviewing 10 carefully selected quality scholarly articles that provided relevant evidence to answer the research question. The findings of this study have important practical implications for entrepreneurs who seek to grow their business or for those who have been already growing their firms. Organizational ambidexterity in SMEs was found to be associated with improved performance. Further, information about resources, the organizational structure for execution, and the setting of various objectives are important factors for implementation. This study's findings provide useful and relevant insights for SME practitioners to advance their firm's strategic planning. Embracing ambidexterity could be the best practice for achieving superior SME's performance. However, it is important to know that there are many ways to generate an ambidextrous organization, and decisions about what method to choose should be based on the environmental aspects of the enterprise. Furthermore, after creating an ambidextrous organization, it is essential to identify final performance. Through implementing an organizational ambidexterity process, a manager can expect growth and survival of the SME organization.

References

*References marked with an asterisk indicate articles used in the systematic review.

Audretsch, D. B., & Belitski, M. (2017). Entrepreneurial ecosystems in cities: Establishing the framework conditions. *The Journal of Technology Transfer*, *42*(5), 1030-1051. https://doi.org/10.1007/s10961-016-9473-8

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, *50*(3), 329-366. https://doi.org/10.2189/asqu.2005.50.3.329

Carayannis, E. G., Provance, M., & Grigoroudis, E. J. (2016). Entrepreneurship ecosystems: An agent-based simulation approach. *The Journal of Technology Transfer*, *41*(3), 631–653. https://doi.org/10.1007/s10961-016-9466-7

*Chang, Y. Y., & Hughes, M. (2012). Drivers of innovation ambidexterity in small-to medium-sized firms. *European Management Journal*, *30*(1), 1-17. https://doi.org/10.1016/j.emj.2011.08.003

*Chen, R. R., & Kannan-Narasimhan, R. P. (2015). Formal integration archetypes in ambidextrous organizations. *R&D Management*, *45*(3), 267-286. https://doi.org/10.1111/radm.12083

Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What is disruptive innovation. *Harvard Business Review*, *93*(12), 44-53.

Covin, J. G., & Miles, M. P. (1999). Corporate entrepreneurship and the pursuit of competitive advantage. *Entrepreneurship Theory and Practice*, *23*(3), 47-63. https://doi.org/10.1177/104225879902300304

Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, *10*(1), 75-87. https://doi.org/10.1002/smj.4250100107

Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, *16*(1), 7-26. https://doi.org/10.1177/104225879101600102

*De Clercq, D., Thongpapanl, N., & Dimov, D. (2014). Contextual ambidexterity in SMEs: the roles of internal and external rivalry. *Small Business Economics*, *42*(1), 191-205. https://doi.org/10.1007/s11187-013-9471-2

Ferrary, M. (2011). Specialized organizations and ambidextrous clusters in the open innovation paradigm. *European Management Journal*, *29*(3), 181-192. https://doi.org/10.1016/j.emj.2010.10.007

Gedajlovic, E., Cao, Q., & Zhang, H. (2012). Corporate shareholdings and organizational ambidexterity in high-tech SMEs: Evidence from a transitional economy. *Journal of Business Venturing*, *27*(6), 652-665. https://doi.org/10.1016/j.jbusvent.2011.06.001

Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, *47*(2), 209-226. https://doi.org/10.5465/20159573

Gobble, M. M. (2016). Defining disruptive innovation. *Research-Technology Management*, *59*(4), 66-71. https://doi.org/10.1080/08956308.2016.1185347

*Han, M., & Celly, N. (2008). Strategic ambidexterity and performance in international new ventures. Canadian Journal of Administrative Sciences/Revue. *Canadienne des Sciences de l'Administration, 25*(4), 335-349. https://doi.org/10.1002/cjas.84

He, Z. L., & Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization Science*, *15*(4), 481-494. https://doi.org/10.1287/orsc.1040.0078

*Hsu, C. W., Lien, Y. C., & Chen, H. (2013). International ambidexterity and firm performance in small emerging economies. *Journal of World Business*, *48*(1), 58-67. https://doi.org/10.1016/j.jwb.2012.06.007

*Hughes, M., Martin, S. L., Morgan, R. E., & Robson, M. J. (2010). Realizing product-market advantage in high-technology international new ventures: The mediating role of ambidextrous innovation. *Journal of International Marketing*, *18*(4), 1-21. https://doi.org/10.1509/jimk.18.4.1

*Ikhsan, K., Almahendra, R., & Budiarto, T. (2017). Contextual ambidexterity in SMEs in Indonesia: A study on how it mediates organizational culture and firm performance and how market dynamism influences its role on firm performance. *International Journal of Business and Society*, *18*(S2), 369-390.

Jansen, J. J., Simsek, Z., & Cao, Q. (2012). Ambidexterity and performance in multiunit contexts: Cross-level moderating effects of structural and resource attributes. *Strategic Management Journal*, *33*(11), 1286-1303. https://doi.org/10.1002/smj.1977

Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, *52*(11), 1661-1674. https://doi.org/10.1287/mnsc.1060.0576

Junni, P., Sarala, R. M., Taras, V., & Tarba, S. Y. (2013). Organizational ambidexterity and performance: A meta-analysis. *Academy of Management Perspectives*, *27*(4), 299-312. https://doi.org/10.5465/amp.2012.0015

Kuran, T. (1988). The tenacious past: Theories of personal and collective conservatism. *Journal of Economic Behavior & Organization*, *10*(2), 143-171. https://doi.org/10.1016/0167-2681(88)90043-1

Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, *14*(1), 319-338.

Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management*, *32*(5), 646-672. https://doi.org/10.1177/0149206306290712

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135-172. https://doi.org/10.2307/258632

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, *2*(1), 71-87.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms, *Management science*, *29*(7), 770-791. https://doi.org/10.1287/mnsc.29.7.770

Mom, T. J., Van Den Bosch, F. A., & Volberda, H. W. (2007). Investigating managers' exploration and exploitation activities: The influence of top-down, bottom-up, and horizontal knowledge inflows. *Journal of Management Studies*, *44*(6), 910-931. https://doi.org/10.1111/j.1467-6486.2007.00697.x

Newbert, S. L. (2006). Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, *28*(2), 121-146. https://doi.org/10.1002/smj.573

O'Reilly III, C. A., & Tushman, M. L. (2013). Organizational ambidexterity: Past, present, and future. *Academy of management Perspectives*, *27*(4), 324-338. https://doi.org/10.2139/ssrn.2285704

*Parmentier, G., & Picq, T. (2016). Managing Creative Teams in Small Ambidextrous Organizations: The Case of Videogames. *International Journal of Arts Management*, *19*(1).

*Patel, P. C., Messersmith, J. G., & Lepak, D. P. (2013). Walking the tightrope: An assessment of the relationship between high-performance work systems and organizational ambidexterity. *Academy of Management Journal*, *56*(5), 1420-1442. https://doi.org/10.5465/amj.2011.0255

Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management*, *34*(3), 375-409. https://doi.org/10.1177/0149206308316058

Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. (2009). Organizational ambidexterity: Balancing exploitation and exploration for sustained performance. *Organization Science*, *20*(4), 685-695. https://doi.org/10.1287/orsc.1090.0428

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, *26*(2), 243-263. https://doi.org/10.2307/259121

Simsek, Z., Heavey, C., Veiga, J. F., & Souder, D. (2009). A typology for aligning organizational ambidexterity's conceptualizations, antecedents, and outcomes. *Journal of Management Studies*, *46*(5), 864-894. https://doi.org/10.1111/j.1467-6486.2009.00841.x

*Tan, M., & Liu, Z. (2014). Paths to success: An ambidexterity perspective on how responsive and proactive market orientations affect SMEs' business performance. *Journal of Strategic Marketing*, *22*(5), 420-441. https://doi.org/10.1080/0965254x.2013.876084

Tushman, M. L., & O'Reilly III, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, *38*(4), 8-29. https://doi.org/10.2307/41165852

Zahra, S. A., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, *10*(1), 43-58. https://doi.org/10.1016/0883-9026(94)00004-e

Appendix A

PRISMA Diagram