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The Impact of Innovation and Environmental Turbulence on Financial Performance

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Abstract
Present research seeks to develop a conceptual model for exploring the impact of innovation on financial performance. In addition to that, the current study has suggested environmental turbulence as a moderator for the relationship mentioned above. The innovation literature and contingency theory supply starting points for developing the conceptual framework. Present research investigates the impact of innovation and environmental turbulence on financial performance. The paper has some preliminary findings since it is suitable for management to direct their effort and time in interpreting the impact of innovation on financial performance. Moreover, the conceptual model delivers insights for considering the effect of environmental turbulence as a moderator variable on financial performance.
Keywords: Innovation, Financial Performance, Contingency Theory, Environmental Turbulence

Introduction

Financial performance is a considerable vital measurement in accounting. Moreover, it denotes the level of the ability of a given company to use its resources optimally to accomplish its wealth and profit (Maswadeh & Al Zumot, 2021). Financial performance can be perceived as the financial condition of a given company over a given period. This includes the collection and usage of funds that are measured using capital adequacy ratio, liquidity, leverage, solvency, and profitability (Van & Wachowicz, 2001). Besides that, financial performance entails the company's financial accomplishment as well as a measure of the level of the company's ability in creating its profit or revenue (Fatihudin et al., 2018; Kober et al., 2012;

Lee et al., 2013; Thoumy & Vachon, 2012). Notably financial performance is a subjective measure in determining how well an organization can utilize the assets from its primary mode of business and create revenues. Moreover, financial performance measures a firm's overall financial health in a specific period and compares similar firms across the same industry, industries, or sectors (Njoroge & Mugambi, 2018).

On the other hand, innovation is considered an evolutionary process that happens inside an organization when a gadget, a system, a policy, or a service that the organization regards as innovative gets adopted (Calantone et al., 2002; Saunila & Ukko 2013). Yang et al (2006) and Saunila and Ukko (2013) regarded innovation as an organizational capacity since it is the act of deploying resources to produce value via the use of a new capability. Lawson and Samson (2001) defined innovation as the capacity to translate information and ideas into unique goods, processes, and systems that benefit both the business and its stakeholders. Additionally, it should have noted that the idea of innovation capacity is connected to the organizational capacities of businesses and the resources they possess, which enable them to undertake and execute innovations efficiently (Stawasz, 2014).

Notably, the importance of financial performance evaluation has been widely investigated in the literature (Maswadeh & Al Zumot, 2021). Moreover, the effect of innovation on financial performance has been given considerable attention in previous empirical research (Atalay, Anafarta & 2013; Cabral et al., 2015). Previous studies found that investigated the effect of innovation on financial performance have provided mixed results. Moreover, a few studies reported a positive significant and effect (Silva et al., 2017; Vermeulen et al., 2005). While, several studies indicated a negative or no relationship between innovation and financial performance (Heunks, 1998; Wahab & Jabar, 2017). Business environment has been described as one of the contingency factors in management research (Prajogo, 2016). Environmental turbulence, which refers to the degree of change in the market and technology within the industry, is considered an essential contingent factor (Jaworski & Kohli, 1993; Tsai & Yang, 2013). Tsai and Yang (2014) stated that the environmental context is a critical factor when evaluating the companies' capabilities. Thus, it provides a better view and a clearer understanding of how innovation contributes to organizational performance. In this regard, environmental turbulence can be introduced as a contingent variable that may enhance the direct relationship between innovation and financial performance (Zulu-chisanga & Boso, 2016). The primary assumption of the contingency theory is that the most successful business strategy and structure would change with the organization's circumstances and the external environment's demand (Howell & Windahl, 2010; Fredericks, 2005).

As a consequence, the external environment is critical since it may influence a company's level of innovation, depending on its dynamics. Additionally, the contingency theory's primary emphasis is on the necessity for businesses to adapt flexibly. Thus, the contingency theory provides a foundation for the moderating effect of environmental turbulence in the link between innovation and organizational success (Turulja & Bajgoric, 2018). The following section discuss the literature review and formulation of propositions, conceptual framework for the study, research methods, theoretical contribution, future research, and lastly, conclusion.

Literature Review and Propositions Development

Financial Performance

Financial performance primarily aims at serving the shareholders. Besides that, it presents the definitive outcome or the bottom-line improvement of the organization by measuring the economic consequences of the actions carried out in learning and growth, internal business processes, and customer perspectives (Jusoh et al., 2008). Moreover, Fatihudin et al (2018) suggested that financial performance encompasses the accomplishment of financial performance of a given company for a given period, and it includes the gathering and allocation of finance that is gauged using the following measures: capital adequacy, liquidity, solvency, efficiency, leverage and, profitability.

Financial performance is conceptualized as the level to which the company's tangible and intangible financial and nonfinancial resources are effectively and efficiently managed in order to achieve the organizational financial goals (Dieste et al., 2021). Gitman (2010) suggested that financial performance measures are essential management tools. More specifically, in a related study, Chiarello et al. (2014) continued to use financial performance definition with indicators related to the company's efficiency, the shareholders' satisfaction, and financial performance estimation. Borba (2005) suggested that corporate financial performance can be determined using measures, including profitability, market value, and returns to shareholders. More specifically, financial performance is linked to profitability, including operating income, return on investment, and economic value-added (EVA). Equally, sales growth cost control and cash flow may be relevant as financial measures (Jusoh et al., 2008). Furthermore, financial performance can include monetary measures, such as profitability, operating ratios, return on investment (ROI), and return on sales (ROS) (Overstreet et al., 2013).

Financial performance is measurable through sales growth, profitability growth, production capacity, and usage of capital and financial resources (Omondi & Muturi, 2013). In another studies, financial performance was measured using ROA, ROS, debt-to-equity ratio (Chatzoglou et al., 2015; Sun & Cheng, 2002; Terziovski et al., 2003). In this research, the concept of financial performance was operationalized based on the most commonly used measures that relate to innovation as the extent of a company's ability to achieve its financial performance it terms of improved overall performance, the market share, and the profitability.

Innovation

The term "innovation" refers to a business's proclivity and willingness to adapt ideas that differ from the norm (Menguc & Auh, 2006). Another definition offered by Bon and Mustafa (2013) is the acceptance of novel ideas or behaviors within the framework of the organization. To illustrate, innovation encompasses a multi-faceted concept perceivable from a process or an outcome outlook with a somewhat blurred distinction. Damanpour and Aravind (2012) and Yusr (2016) suggested that the process perspective explores the discovery, the creation, the development, the commercialization, or the implementation of new ideas. In contrast, the product perspective looks at innovation due to the innovation process. Based on the extensive revision of innovation, the present research conceptualized innovation as a fundamental source of competitive advantage and one of the highly crucial dynamic capabilities that allow companies to attain a high extent of competitiveness better position in the market (Deloitte, 2015).

Environmental Turbulence

Environmental turbulence is often seen as discrete, notable, and unpredictable events happening in the environment, such as significant technological changes and dramatic changes (Dost et al., 2019). Miller and Friesen (1983) and Dess and Davis (1984) defined environmental turbulence as the degree of uncertainty, especially with regard to the pace and predictability of changes in goods, technology, and product demand within a specific market. Additionally, Podmetina and Volchek (2016) defined environmental turbulence as market turbulence (rapidly changing market requirements) and technology turbulence (rapid and radical technological advancements). In the context of business, environmental turbulence refers to exogenous, unexpected, and highly diverse occurrences in the environment that have an effect on the enterprises functioning in a certain industry (Danneels & Sethi, 2011; Ko & Tan, 2012; Tsai & Yang, 2014; Turulja & Bajgoric, 2018).

Lumpkin and Dess (2001) mentioned that environmental turbulence refers to the degree of uncertainty companies face during decision-making in an uncertain environment. Several sources can produce environmental turbulence, but technology and market turbulence are the two most recognized ones. Among scholars, there has been a consensus that environmental turbulence is classified into market turbulence and technological turbulence (Hartono & Sheng, 2016; Hung & Chou, 2013; Sethi & Iqbal, 2008; Zhou, 2018; Zhou et al., 2005). Despite of that, there is no single approach to defining and measuring environmental turbulence, and it has been defined and measured in various ways. In the present research, environmental turbulence was considered a unidimensional variable and conceptualized as exogenous, unpredictable, and highly varied events in the environment that impact the companies operating in an industry (Tsai & Yang, 2014). Furthermore, environmental turbulence refers to market changes and technological changes in the environment.

Contingency Theory

The contingency theory was established in the 1960s, and its fundamental assumptions may be traced back to early writings on organizational theory by Galbraith (1977), Lawrence and Lorsch (1967), and Van de Ven (1967). Based on the Contingency theory, the best structure for organizations is the one that is contingent upon the surrounding external environment. Based on the Contingency theory's assumptions, environmental turbulence as a contingent external factor was introduced as a moderating variable that affects companies' capabilities (innovation) on their financial performance. Based on the results, environmental turbulence did not moderate the relationship between innovation and financial performance. Present research examined the influence of environmental turbulence as a moderator variable on the link between innovation and organizational performance (financially). Based on contingency theory, improved organizational performance may be achieved by alignment of organizational features and contingencies, which can be thought of as factors moderating the link between organizational characteristics and firm performance (Morton & Hu, 2008). As a result, the contingency theory should support the function of environmental turbulence as a moderator in the link between innovation and organizational success (Turulja & Bajgoric, 2018).

The Relationship between Innovation and Financial Performance

Innovation has a significant effect on organizational performance by enabling companies to take a better position in the market, giving them a competitive advantage and

improved performance (Walker, 2008). In other words, organizations that dedicate themselves to developing their innovation capability appear to have better chances for success in the future (Saunila & Ukko, 2012). Moreover, Ismanu and Kusmintarti (2019) suggested that among the SMEs studies, innovation is a consistent strategy for increasing firm performance, and innovation is essential in business management for improving firm performance. Several studies, innovation has been reported as the one way for organizations to survive and thrive in increasingly hyper-competitive markets (Kim & Maubourgne, 2005; Rosenbusch et al., 2011). Pieces of evidence in the past academic literature on the positive relationship between innovation and organizational performance have been indicated (e.g., Aziz & Samad, 2016; Ferreira et al., 2019; Iqbal et al., 2018; Sahoo, 2019; Sciarelli et al., 2020). Specifically, Past literature has received considerable attention on the relationship between innovation and financial performance. The positive effect of innovation on financial performance has been confirmed in different countries and industries. For example, in Mauritius, within agriculture, Maistry et al (2017) reported a significant and positive impact of innovation on financial performance.

Similarly, in Indonesia, among SMEs, Ismanu et al (2017) indicated that product innovation and process innovation are elements of innovation that significantly impact financial performance. Furthermore, among insurance companies in Sri Lanka, Rajapathirana and Hui (2018) reported a strong relationship between the efforts of innovation and financial performance through market performance. Additionally, organizations with more successful innovation appear to demonstrate better financial performance (Ameen et al., 2020; Asad, 2018; Chouaibi, 2021; Nandal et al., 2021). The last category focuses on the results of innovation. Additionally, the most often studied implications include financial performance (Camis'on & Villar-L'opez, 2014). As (Expósito & Sanchis-Llopis, 2019)(Expósito & Sanchis-Llopis, 2019) & Sanchis-Llopis (2019) indicate, future research should focus more on the link between innovation and financial success. Hence, present research posits that a firm would enjoy better financial performance through innovation capabilities. Therefore, this research proposed the following hypothesis:

H_1: There is a positive relationship between innovation and the financial performance

Moderating Effect of Environmental Turbulence between Innovation and Financial
Performance Innovation is a crucial driver of a company's competitiveness, while the success of companies encompasses the ability to innovate in highly dynamic business environments (e.g., Chen et al., 2009; Uzkurt et al., 2013; Zaefarian et al., 2017). Tsai and Yang (2014) found that organizations with a high innovation capability appear to deal with the market change in novel manners. They are also able to exploit the rapidly changing market demands. Moreover, when the degree of turbulence is high, organizations are required to increase their level of innovativeness (Kotler & Caslione, 2009; Podmetina & Volchek, 2016; Schweitzer et al., 2011). Zulu-chisanga et al (2016) stated that high environmental turbulence imposes pressure on companies to allocate significant resources to new product success efforts, depressing financial performance. Likewise, in a highly turbulent environment (e.g., technological turbulence), companies can adjust by utilizing their innovation when the level of technological turbulence is high (Tsai & Yang, 2014). Since rapid technological advances soon obsolete the present technologies, companies must continually develop new technologies (Hung & Chou, 2013) to achieve efficiency in the latest technology, thus successfully generating product and

process innovations (Tsai & Yang, 2014). Companies will attain high organizational performance through high innovation in a highly turbulent environment (e.g., market turbulence) (Rahim & Zainuddin, 2017). High market turbulence with rapidly changing customer demands motivates companies to learn more about the changes. They must also constantly identify reconfigurations of their resources and capabilities, such as innovation (Wilden & Gudergan, 2014), to address market changes in new ways and can take advantage of rapidly changing market demand (Tsai & Yang, 2013).

Past studies have reported a positive effect of innovation on financial performance (Ho et al., 2018; Lilly & Juma, 2014). On the other hand, a few studies have found that innovation does not explain financial performance significantly (Albuhisi & Abdallah, 2018). Additionally, Saliba de Oliveira et al. (2018) have reported a negative effect of innovation on financial performance. Baron and Kenny (1986) and Frazier et al. (2004) suggested that it is possible to establish moderators when previous studies report a weak or inconsistent relationship between an independent variable and a dependent variable. Hence, when environmental turbulence is more substantial, the impact of innovation on financial performance would be higher. In contrast, when environmental turbulence is weaker, the impact of innovation on financial performance would be lower.

Based on the findings of prior research, which indicated a mixed relationship between environmental turbulence and organizational performance, this study examines the moderating impact of environmental turbulence. Boso et al (2013) discovered that environmental turbulence has a large and beneficial influence on the link between innovation and performance. Turulja & Bajgoric's (2018) findings, on the other hand, indicated that environmental volatility had no effect on the link between innovation and financial success. Numerous researchers have investigated the moderating influence of environmental turbulence on the relationship between innovation and organizational success (e.g., Calantone et al., 2003; Tsai & Yang, 2014; Zulu-Chisanga et al., 2016). Specifically, Jimenez-Jimenez and Sanz-Valle (2011), Sahoo (2019), and Khan and Naeem (2018) have indicated that more future research should focus on identifying moderators and elucidating the particular processes through which innovation influences performance. Present research hypothesized, based on a review of the literature and the research gaps identified in prior studies, that environmental turbulence increases the association between innovation and financial success. Therefore, this research proposed the following hypothesis:

H_2: Environmental turbulence strengthens the relationship between innovation and financial performance

Conceptual Research Framework

Based on the contingency theory assumptions and extensive literature review, it has been proposed that innovation directly affects financial performance, and environmental turbulence moderates the abovementioned relationship. The proposed model supports the need for high innovation utilization to improve financial performance. In addition to that, it supports that; the level of environmental turbulence moderates the direct relationship between innovation and financial performance. The model suggests that the higher innovation, the better the financial performance if environmental turbulence is high. The present research has developed its theoretical framework based on the literature review,

shown in Figure 1. In addition, contingency theory was used for underpinning the theoretical framework.

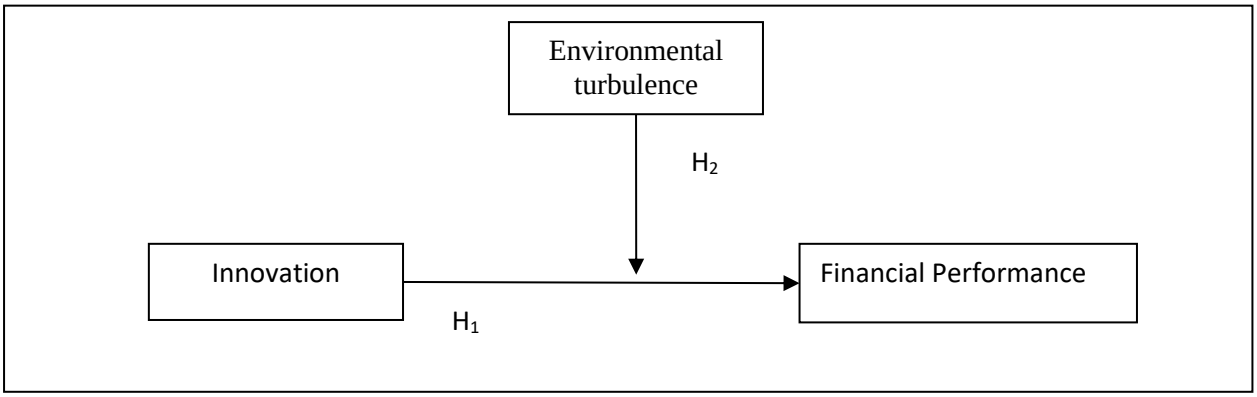

Figure 1: Conceptual framework

Research Methodology

Present research used a systematic literature review methodology (Fisch & Block, 2018, Nasim, 2018). Based on the literature review, a conceptual model has been developed that encompasses innovation as a predictor, environmental turbulence as a moderator, and financial performance as a creation. In order to achieve the objectives of this study, we utilized search methods that focused on extracting articles related to the study's variables in high-quality journals. The selection of journals was based on their relevance and accessibility. Different databases provide several journals related to quality management; the most relevant journals have been selected for the study purpose. The following search terms were used to download the articles; Innovation, environmental turbulence, and financial performance. The entire search resulted in downloading a lot of articles. Then each article was skim read to ensure that its contents were related to the study's variables. Articles that included the direct relationship between innovation and financial performance and articles that introduced environmental turbulence as a moderator for the above relationship were also considered. However, all the articles studied were from journals published in English.

Theoretical Contribution

Past studies reported a mixed relationship between innovation and financial performance (Azar & Ciabuschi, 2017; Ho et al., 2018; Kalmuk & Acar, 2015). Moreover, contingency theory provides the underlining assumption for introducing environmental turbulence as a moderator. There is, however, a dearth of studies exploring the link between innovation and financial success and the moderating influence of environmental volatility (Calanton et al., 2003; Tsai & Yang, 2014; Zulu Chisanga et al., 2016). Innovation has been identified as a critical aspect in enhancing an organization's competitiveness (Deloitte, 2015) due to the introduction of new processes, products, or systems that may result in economic growth and performance heterogeneity (Schumpeter, 1934). The majority of organizations think that their long-term success is contingent upon innovation (Alon et al., 2015).

However, there is a mismatch between what the business wants and what it can do, resulting in the failure of innovation programs or issues maintaining performance (Pisano, 2015). As a result, it has become critical for businesses to create organizational competencies for long-term management and innovation (Smith et al., 2008). Thus, the current study contributes to the body of knowledge by suggesting a direct relationship between innovation on financial

performance and environmental turbulence as a third variable which expected to affect the direct relationship. In particular, the present study's conceptual model serves as an insightful theoretical framework for analyzing innovation's effect on financial performance and the moderating effect of environmental turbulence. The conceptual model has been developed based on previous related studies and contingency theory.

Future Research

Present research aims to develop this conceptual model; future studies may conduct a cross-sectional survey design in determining the relationship between innovation on financial performance and the moderating effect of environmental turbulence. Future research may test the present research theoretical framework through empirical testing. In addition, future research may also expand the current research framework by adding additional variables to their study. Likewise, future research may identify variables that could mediate the relationship between innovation and financial performance. Moreover, since the present research theoretical framework has not been tested empirically, future research could test the research framework through a qualitative or quantitative approach. This research expansion; would increase the current body of knowledge in innovation.

Conclusion

Present research introduced environmental turbulence as a moderator between innovation and financial performance utilizing the Contingency theory as a theoretical background and the assumption by Baron and Kenny (1986), which suggested introducing a moderator when there are mixed results between the independent variable (innovation) and the dependent variable (financial performance). Present research showed that environmental turbulence did not function as a moderator between innovation and financial performance. According to Turulja and Bajgoric (2018), the moderating role of environmental turbulence between innovation and business performance was not supported. Moreover, environmental turbulence appears to promote innovation. In other words, environmental turbulence is an antecedent rather than a moderator of the relationship between innovation and business performance. Based on the Contingency theory's assumptions, environmental turbulence as a contingent external factor was introduced as a moderating variable that affects companies' capabilities (innovation) on their financial performance. Consequently, the present research extended the body of knowledge about innovation, financial performance, and environmental turbulence.

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