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Influence of Individual Entrepreneurial Orientation on the Performance of Small and Medium Enterprises in Malaysia*

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Abstract

This study examined the influence of three elements of individual entrepreneurial orientation (IEO), namely innovativeness, risk-taking, and proactiveness on the performance of small and medium enterprises (SMEs). It is worth noting that SMEs have experienced low productivity, low profit, and low performance during the COVID-19 pandemic era. Although several studies have shown that entrepreneurial orientation (EO) is a key factor of company performance, few have focused on IEO. This study employed a quantitative research design because all variables were measurable. It used a questionnaire to survey 384 SMEs in the service sector and employed structural equation modeling (SEM) in data analysis. The findings suggested that SMEs' performance was influenced by risk-taking and proactiveness. This could be related to the fact that SMEs have a less formal structure, allowing owner-managers to take risks and make quick decisions. Furthermore, high performance was ensured by being very sensitive to market trends and changes in the business environment. Innovativeness was not a significant factor in influencing the performance of SMEs. Perhaps it was rather difficult for SME owner-managers to be innovative due to the lack of various resources. This study successfully re-confirmed the effect of IEO on business performance and highlighted the importance of risk-taking and proactiveness in improving the performance of SMEs.

Keywords: Entrepreneurial Orientation, Individual Entrepreneurial Orientation, Firm Performance, Small Businesses

JEL Classification Code: L25, L26, M13

1. Introduction

Small and medium enterprises (SMEs) are important to a country's development. It is a fact that SMEs are crucial in transforming Malaysia into a high-income nation. This could be evidenced by the Organization for Economic Co-operation and Development (OECD) area, in which 99% of the firms were made up of SMEs. SMEs not only provided about 70% of the jobs but also generated between 50% and 60% of average added value. They have tremendously contributed to economic diversification and resilience (OECD, 2017). In Malaysia, SMEs are also crucial to the country's economic development and stability because more than 95% of business entities are SMEs and they cut across multiple sectors of the economy (Hashim, 2015). Some significant contributions of Malaysian SMEs in 2019 were as they contributed 38.9% to gross domestic product (GDP), 48.4% to total employment, and 17.9% to total export (NESDC, 2021).

Since SMEs play a crucial role in a nation's development, their performance is highly associated with the overall economic performance of a country. Recently, the COVID-19 pandemic has brought many new challenges to SMEs and affected their performance. As reported by the Department of Statistics Malaysia (DOSM), SMEs recorded negative growth of –7.3% in GDP. The contraction was greater than

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the decrease in Malaysia's GDP (–5.6%) and non-SMEs' GDP (–4.2%), mainly caused by the crisis of COVID-19. In particular, SMEs of all economic sectors also experienced negative growth, ranging from –0.3% to –15.4%. The contribution of SMEs' GDP was 38.2% in 2020 (The Star, 2021). It could be said that the strike of COVID-19 has significantly jeopardized the performance of SMEs in the country.

The COVID-19 crisis was an uncontrollable factor that affected the performance of nearly all sizes of businesses, including SMEs. It is a fact that the performance of businesses is also affected by other factors such as the owner's decision. As for SMEs, they are mainly managed by their owners who are known as owner-managers and normally have very limited resources. To most SMEs, owner-managers are the ones who make various decisions in the business. Since SMEs are inseparable from their owner-managers, the performance of SMEs is normally affected by factors associated with their owner-managers, such as personality, leadership styles, level of knowledge, and resources. The owner's decision is even more important in times of crisis.

Entrepreneurial orientation (EO) is one of the popularly studied concepts in entrepreneurship studies. Over the years, EO has long been regarded as a firm-level factor and it is associated with the performance of firms. Various studies have successfully found that the firm's EO was a critical antecedent of the firm's performance (Hikmah et al., 2021; Avlonitis & Salavou, 2007) or marketing performance (Hakim et al., 2022). However, previous studies have used different EO measurements and performance measurements. Although most previous studies have regarded EO as a firm-level factor, Robinson and Stubberud (2014) highlighted that EO can be applied to individuals. Indeed, Ferreira et al. (2015) also mentioned that firms are operated by people and thus individual-level EO should prevail. Unfortunately, there are limited studies on individual-level EO. Specifically, the number of studies that scrutinize the relationship between individual EO (IEO) and the performance of firms is still low.

Since a new definition of SMEs was introduced in Malaysia in 2013, a greater number of business establishments are now categorized as small and medium-sized organizations. The performance of SMEs in the country requires a re-study. However, studies that investigate the IEO of SME owner-managers are still scant. Questions such as "how entrepreneurial the SMEs owner-managers are" and "how well SMEs are performing" remain unanswered. Due to the above-mentioned gaps, the main objective of this study was to examine the influence of SME owner-managers IEO on SMEs' performance. Specifically, a survey was carried out among the SMEs and the data collected was analyzed by using structural equation modeling (SEM).

2. Literature Review

2.1. Small and Medium Enterprises (SMEs) and Their Performance

The definition of SMEs varies across countries. In Malaysia, NESDC (2021) has defined SMEs based on two criteria, namely sales turnover or the number of employees (Table 1). Under its definition, all SMEs must be registered with the Companies Commission of Malaysia (SSM) or other equivalent bodies. It is also important to note that the definition of SMEs excluded public-listed companies on the mainboard and all subsidiaries of entities such as public-listed companies on the mainboard, multinational corporations (MNCs), government-linked companies (GLCs), Syarikat Menteri Kewangan Diperbadankan (MKD), and State-owned enterprises.

A great number of business entities in Malaysia are SMEs; thus, they are expected to play a greater role in developing the country's economy. SMEs contributed to about one-third of the country's GDP and employed more than half of the manpower in the workforce market (NSDC, 2018). As such, SMEs are expected to be the key drivers and enablers of economic growth (NSDC, 2012). They play a significant role in a nation's economic development through jobs creation. True, as Zafar and Mustafa (2017)

Table 1: Definition of SMEs

Sectors	Small Enterprises	Medium Enterprises
Manufacturing	Sales turnover from RM300,000 to less than RM15 million OR employees from 5 to less than 75	Sales turnover from RM15 million to not exceeding RM50 million OR employees from 75 to not exceeding 200
Services and Other Sectors	Sales turnover from RM300,000 to less than RM3 million OR employees from 5 to less than 30	Sales turnover from RM3 million to not exceeding RM20 million OR employees from 30 to not exceeding 75

Source: NESDC (2021), p. 310.

concluded, SMEs produced large of output and boosted the economy of developing countries such as Pakistan and India. Therefore, to ensure the continuous growth of the economy, SMEs are required to face various uncertainties and changes in the business environment, such as the depreciation of the currency, declining stock market price, fell of oil prices, and slow global demand (NSDC, 2017). It can be said that if SMEs could not perform well, the nation's economy would be affected significantly. Thus, the performance of SMEs is highly associated with the overall economic performance of a country.

The challenges in the business environment could hinder an SME from growing and eventually result in a permanent shutdown. As such, SMEs need to be competitive to survive and achieve remarkable growth in the current competitive business world (Rodríguez-Gutiérrez et al., 2015). But, how competitive are the SMEs? How well is the performance of SMEs? What are the crucial determinants of SME performance? These questions have motivated researchers in the field of entrepreneurship to investigate the issues further. Over the years, there are extensive studies about the performance of SMEs, but the topic is still worth researching because of the heterogeneity in features, business models, and management practices among firms (Combs et al., 2005). Furthermore, measuring the performance of SMEs is not easy because of its complexity. Extant studies have adopted both qualitative and quantitative measures of business performance, and they have also used objective and subjective data. Furthermore, the explanatory factors of business performance also vary according to the studies (Rodríguez-Gutiérrez et al., 2015).

In measuring a firm's performance, researchers have employed several common performance criteria such as growth (Rodríguez-Gutiérrez et al., 2015; Vantilborgh et al., 2015). However, as Lumpkin and Dess (1996) explained, the firm could perform well in one dimension but poorly in another dimension. They argued that studying just one dimension of a firm's performance, such as profitability or growth was insufficient because it could lead to misleading results. As such, a firm's performance should be deemed to be multi-dimensional, and adopting a multi-dimensional performance measurement is also essential to obtain an accurate result (Vij & Bedi, 2012). Moreover, utilizing a multi-dimensional model in determining the firm's performance could also help the firm to identify its strengths and weaknesses. Thus, utilizing a multi-dimension performance measure is indeed required for further investigation.

2.2. Individual Entrepreneurial Orientation (IEO)

The concept of EO was originated from Miller (1983), who described that for a firm to be considered as an entrepreneurial firm, it should be proactive, innovative, and assume risk. The three dimensions of EO (i.e.: innovativeness, proactiveness, and risk-taking) were then discussed by Covin and Slevin (1989, 1991) in their concept of firm strategic posture and entrepreneurial posture. They maintained that EO is a unidimensional concept that influences the performance of business firms. Several years later, Lumpkin and Dess (1996) further refined EO as a five-dimension construct that consists of autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness. They argued that a firm's EO, which can be a source of competitive advantage or strategic renewal is important in determining its performance.

Although EO is a popularly studied topic in the entrepreneurship literature, there is ample room for further investigation due to the following reasons. First, Koe (2013) found EO as an important determinant of a firm's performance; however, researchers agreed that previous studies on the EO-performance relationship have produced inconsistent or inconclusive results (Vantilborgh et al., 2015; Vij & Bedi, 2012; Wiklund & Shepherd, 2005). For instance, et al. (2022) concluded that entrepreneurial orientation recorded a positive but insignificant effect on business performance. Second, some research followed Covin and Slevin's (1991) suggestion to use a holistic unidimensional EO concept (Kittikunchotiwut, 2020; Alam et al., 2015; Wiklund & Shepherd, 2005) but some adopted Lumpkin and Dess' (1996) idea to regard EO as a multi-dimensional construct (Vantilborgh et al., 2015). To date, there is no consensus on whether a uni- or multi-dimensional EO should be used in studying a firm's performance and which produces a more accurate result.

Undoubtedly, the firm-level EO is an important antecedent of a firm's performance. However, some limitations were found in firm-level EO studies. For instance, firm-level EO failed to highlight the importance of individuals who run the business (Krauss et al., 2005). The persons who run the business, i.e.: the entrepreneurs or the business owner-managers, are critical to the success of the venture because the businesses are run and managed by people (Ferreira et al., 2015). The intangible assets related to the entrepreneurs, such as their characteristics and motivation, are considered important factors affecting SMEs' business success (Rodríguez-Gutiérrez et al., 2015). In other words, entrepreneurs are not separable from their firms; their personal quality, characteristics, abilities, capabilities, and competitiveness would affect the performances of their firms because they are the main decision-makers. Thus, studying individual entrepreneurial orientation (IEO) is essential in SMEs research.

Over the years, researchers have suggested that EO can be regarded as an individual-level construct (Bolton & Lane, 2012; Krauss et al., 2005; Robinson & Stubberud, 2014). Similarly, Vantilborgh et al. (2015) also agreed that

the dimensions of EO could be translated to individual-level as personality traits to explain entrepreneurial status and success. Several researchers, such as Goktan and Gupta (2015), Lee et al. (2011), and Taatila and Down (2012), have attempted to investigate the EO of individual undergraduate students from various countries. Apart from using students as the subjects of study, Alam et al. (2015) have investigated Malaysian entrepreneurs, and they found that Malay entrepreneurs recorded high EO. Therefore, IEO has been proven as a construct that can be measured.

As firm-level EO was found to be a critical determinant of a firm's performance, could individual-level EO influence the firm's performance, especially SMEs' performance? Little is known about the IEO-performance relationship. SMEs are normally owned by owner-managers. Unlike large-sized organizations, SMEs do not have established policies, rules, and regulations to guide their operations. Most SMEs depend on the sole decision of their owner-managers. In other words, entrepreneurs' individual qualities and abilities could determine how well their firms can perform.

2.3. The Influence of IEO on Firm's Performance

This study treated IEO as a multidimensional construct that consisted of three dimensions (i.e.: innovativeness, risk-taking, and proactiveness) instead of five. This is because previous studies found that certain elements overlap with each other. For instance, Lim and Envick (2013) suggested that competitive aggressiveness overlapped with proactiveness. Similarly, Lee and Lim (2009) also used four dimensions instead of five because innovativeness covaried with competitive aggressiveness.

From the extant literature, entrepreneurs who scored high on their IEO described their business success as higher (Bolton, 2012). Specifically, the author further concluded that risk-taking and proactiveness attribute significantly and positively correlated to business success. Furthermore, previous studies have found a positive relationship between IEO and a firm's performance. For instance, as proven by Vantilborgh et al. (2015), IEO was found to be related to venture performance. In another research, Chien (2014) studied the EO of individual franchisees in Taiwan and found that franchisees possessed the ability to pursue an opportunity in the competitive business world and such ability had a positive effect on firm performance.

The above studies have successfully proven that dimensions in IEO were related to a firm's performance; therefore, the following research framework (Figure 1) and hypotheses (H1–H3) were developed.

H1: *Innovativeness positively influences the performance of SMEs.*

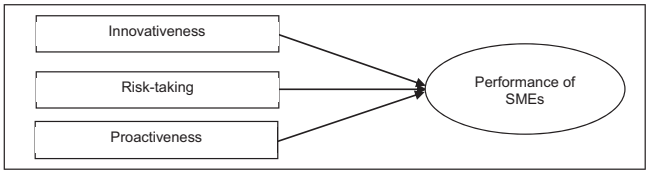

Figure 1: Research Model

H2: *Risk-taking positively influences the performance of SMEs.*

H3: *Proactiveness positively influences the performance of SMEs.*

3. Research Methodology

This research adopted a quantitative research method and adopted a survey approach. This was because all the variables were quantifiable and measurable. The data were collected cross-sectionally, in which the data was collected only once in the data collection period. The unit of analysis was the owner-manager or the person in charge of the daily operations of SMEs.

SMEs in the services sector were the greatest contributor to SME GDP (63.3%) and overall GDP (57.7%) as compared to other sectors in 2019 (NESDC, 2021). Thus, the population of this study comprised of services-based SMEs registered in the database of SME Corp Malaysia, a reputable and reliable SME monitoring body in Malaysia. The list of SMEs obtained from the database was used as the sampling frame. Because SMEs were scattered unevenly around 13 states and three federal territories in Malaysia, this research selected the sample using a proportionate stratified sampling method. In doing so, the SMEs were first stratified according to the 13 states and three federal territories. Then, the sample was selected proportionately from each region to ensure a sufficient number of SMEs were selected from each region. Based on Krejcie and Morgan'a (1970) table of sample determination, the minimum required sample size for this study was 358. As the response rate of SMEs was usually low, a total of 1500 questionnaires were distributed. At the end of the data collection process, a total of 405 responses were collected. After the data screening process, a total of 384 questionnaires were deemed to be completed and usable. In other words, the response rate was 25.6%. The response rate was considered acceptable because surveys with SMEs normally yielded a rather low response rate.

In collecting the data, self-administered questionnaires were distributed to the owner-manager or person in charge of the daily operations of SMEs. According to Burns and Burns (2008), a self-administered questionnaire is suitable to be used when a large sample can be obtained; it is also

Table 2: Contents of Questionnaire

Section	No. of Items	Sources
Section A		
Background information	5	Designed by researcher
Section B		
Innovativeness	4	Bolton and Lane (2010)
Risk-taking	3	Bolton and Lane (2010)
Proactiveness	4	Bolton and Lane (2010)
Section C		
Performance of SMEs	6	Li et al. (2009)

the easiest to manage and the cost and time factors are also low. All questions in the questionnaire were close-ended questions, in which respondents were asked to indicate their ratings based upon a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). As Burns and Burns (2008) mentioned, the Likert scaling method is considered good because it produces more homogeneous scales and increases reliability and validity. The questionnaire consisted of three sections and its contents were summarized in Table 2. Specifically, the performance of SMEs was measured by the firm's satisfaction level on efficiency, growth, and profit.

Before the questionnaires were distributed to the respondents, a pilot test was carried out with 30 respondents. The purpose of conducting the pilot test was to ensure that the research instrument was error-free and could be understood by the respondents. Based upon the feedback from the respondents, minor modifications were performed to improve the clarity of questions. After that, 1500 questionnaires were distributed to the respondents

4. Results and Discussion

4.1. Demographic Profiles

The demographic profiles of respondents indicated that the respondents comprised more males (n = 300; 78.13%) than females (n = 84; 21.88%). More than half of the SMEs' owner-managers were between 31 and 50 years old (F = 248; 64.58%). It was found that most owner-managers registered their venture as a sole proprietorship (n = 274; 71.35%), while others as a partnership and private limited company. More than half of the SMEs were considered as small-sized firms with five to 30 employees (n = 210; 54.69%) and have operated the venture for five to 15 years (n = 208; 54.17%).

Table 3: Indices for Model Fit

Indices	Value
Root mean square residual (RMSR) (<0.05)	0.035
The goodness of fit index (GFI) (>0.9)	0.935
Adjusted goodness of fit index (AGFI) (>0.9)	0.897
Normed goodness of fit index (NFI) (>0.9)	0.921
Comparative fit index (CFI) (>0.9)	0.986
Root mean square error of approximation (RMSEA) (<0.08)	0.034

4.2. Measurement Model

Structural equation modeling (SEM) was used to test the model developed in this study. The AMOS software was used in this process. First, confirmatory factor analysis (CFA) was performed to test the reliability and validity of data obtained by using a measurement model. From the analysis, it is found that the model has a good fit of data. For instance, the initial indices for model fit, such as chi-square (χ^2) and p-value have met the requirements (χ^2 = 89.756; df = 75; p-value = 0.118). Nonetheless, as mentioned by Hair et al. (2006), χ^2 alone is not enough for measuring a model fit because the goodness of fit is also affected by other factors. As such, Table 3 presents the other indices for determining the model fit. As presented, all the indices met the requirements of good fit; except for AGFI, which recorded a value of 0.897, which was very near to 0.9. It is important to note that no items were deleted in the process of determining the model fit.

To determine the convergent validity and internal consistency, average variance extracted (AVE) and composite reliability (CR) were computed and shown in Table 4. As presented, all items recorded loading values of greater than 0.5, the lowest threshold of factor loading. In addition, all AVEs and CRs were also greater than 0.5 and 0.6 respectively. It could be noticed that all AVEs and CRs have met the minimum thresholds suggested by Hair et al. (2006). In other words, the results indicated that adequate convergence and internal consistency existed in the model. Moreover, all the Cronbach's alpha values were also higher than the acceptable cut-off value of 0.7.

Table 5 illustrates the correlations and squared correlations among the constructs. The correlation values were used to determine the discriminant validity. In Table 5, values below the diagonal are correlations; meanwhile, values above the diagonal shown in italic are squared correlations. Surprisingly, not all the constructs recorded significant correlations. For example, INN and RIS, PRO and INN, and PER and INN were not significantly correlated. Meanwhile,

Table 4: Indices for Model Fit

Construct	Item	Loading	AVE	CR	α
Innovativeness	Inno01	0.929	0.583	0.844	0.841
	Inno02	0.834			
	Inno03	0.661			
	Inno04	0.580			
Risk taking	Risk01	0.939	0.630	0.832	0.819
	Risk02	0.789			
	Risk03	0.620			
Proactiveness	Proa01	0.893	0.527	0.675	0.740
	Proa02	0.773			
	Proa01	0.507			
Performance	Perf01	0.937	0.813	0.897	0.895
	Perf02	0.865			
	Perf03	0.764			
	Perf04	0.729			
	Perf05	0.657			
	Perf06	0.602			

the other constructs were significantly correlated with each other, with correlations ranging from 0.288 to 0.466 and their *p*-values were less than 0.001. Hair et al. (2006) suggested that discriminant validity could be determined by comparing average variance extracted (AVE) for each factor with the squared inter-construct correlations of the factors. As can be seen from Table 5, all the AVE values were greater than the squared correlations. Thus, it showed that there were no problems with the discriminant validity and all the constructs are truly distinct from each other.

Table 5: Correlations and Squared Correlations

	RIS	INN	PRO	PER
RIS	1.000	0.024	0.083	0.095
INN	0.155	1.000	0.018	0.003
PRO	0.288**	0.135	1.000	0.217
PER	0.308**	0.056	0.466**	1.000

4.3. Structural Model and Hypotheses Testing

Structural model was tested in the following step to determine the relationship between the latent constructs. Results from the structural model testing revealed that the model fitted the data well (χ^2 = 89.756; df = 75; *p*-value = 0.118; χ^2/df = 1.197; GFI = 0.935; CFI = 0.986 and RMSEA = 0.034), only AGFI value is slightly below the threshold of 0.9 (AGFI = 0.897). As such, all these indices indicate that the structural model was acceptable.

Figure 2 presents the results of hypotheses testing. Surprisingly, only two hypotheses were supported, i.e., H2 and H3. The p-values recorded were below 0.001 for both H2 and H3. The results also revealed that H1 was not supported. In other words, SMEs' performance was significantly influenced by two elements of IEO, namely risk-taking and proactiveness. However, innovativeness was found not to have any significant influence on SMEs' performance. The squared multiple correlation values for SMEs' performance was 0.298, which indicated that the percentage of variance explained was 29.8%.

4.4. Discussion

The results presented in the above section found that risk-taking and proactiveness were two influential IEO elements that affected the performance of SMEs in the service sector. The results were rather consistent with Bolton (2012), Vantilborgh et al. (2015), and Chien (2014). Undeniably, SMEs face greater challenges and more intense competition than their bigger counterparts in the business environment due to the huge number of players and extensively scarce resources. As mentioned in the earlier section, due to the revised definition of SME in Malaysia, the number of SMEs is greater than before. As a result, all SMEs are required to

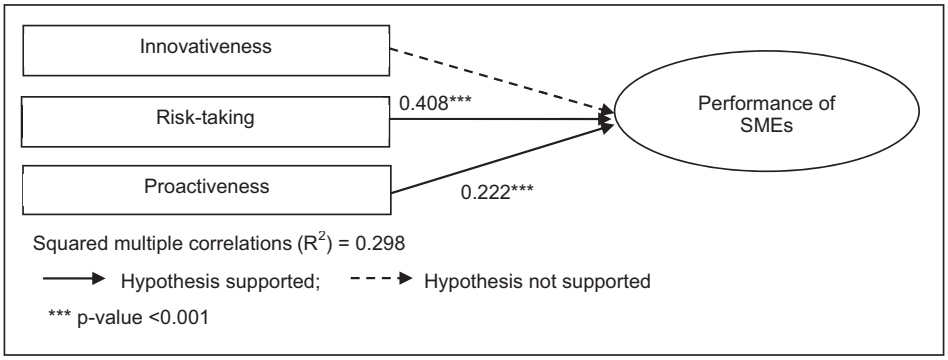

Figure 2: Results of Hypotheses Testing

operate in a risky business climate, and entrepreneurs need to assume a high level of risk to survive in the competition and outperform one another. Furthermore, as SMEs have a less formal organizational structure, the entrepreneur would be the sole person in decision making which makes them easily take any bold actions. They do not need to hold long meetings and obtain approval or agreement from various parties. In addition, the lack of valuable resources and reliable information could also make the entrepreneurs commit to action without complete information and thus assume higher-level risk. Some entrepreneurs may operate their businesses in an entrepreneurial way, as explained by Stevenson and Jarillo (1990) that one of the dimensions in entrepreneurial management is assuming the high risk for rapid growth.

As mentioned by Stevenson and Jarillo (1990), opportunity searching is an important action found in an entrepreneurial firm. Thus, actively searching for a new business opportunity is crucial in enabling SMEs to be significant in today's business world. As market trends and consumer tastes keep changing rapidly, entrepreneurs need to be sensitive and alert to changes in the business environment. Therefore, being proactive could guarantee the success of business nowadays. In addition, no business could last for long without transformation in terms of operations or production. As such, being proactive in searching and grasping business opportunities could help the business to transform itself from time to time and achieve good performance.

Surprisingly, an entrepreneur's innovativeness is not significant in influencing SME performance. The result was congruent with Vantilborgh et al. (2015). Innovation is a process that requires knowledge, money, and time. SMEs are small in nature and often lack human resources, financial resources, and knowledge. Thus, it is not easy for the entrepreneur to be innovative and impose an influence on the business performance.

Furthermore, innovation often requires resources, teamwork, motivation, and sharing of ideas and knowledge. As such, it would be difficult for entrepreneurs to take individual effort to be innovative. In addition, the insignificant effect of innovativeness in this study indicated that the role of entrepreneurs' personality traits on business performance needs to be re-examined.

Although this study found that innovation did not influence the performance of SMEs, it should not be neglected as well. Specifically, in the era of Fourth Industrial Evolution (IR 4.0), lacking innovation is indeed a hurdle for SMEs to face challenges in the future. Since IR 4.0 emphasizes digitalization and automation, innovativeness is a core competency for SMEs to deal with the changing competitive landscape. In addition, the recent development of 5G technology has also reshaped the ways businesses are done. Owner-managers need to understand that the business world is full of challenges and the only constant changes. Therefore, initiatives that help to develop innovativeness among SME owner-managers should be established. Initiatives such as training programs, collaboration with private and public sectors, and providing innovation grants are deemed capable of enhancing innovativeness among SME owner-managers.

5. Conclusion

This study embarked on the influence of IEO on the performance of SMEs. By using IEO constructs, this study concluded that entrepreneurs' risk-taking and proactiveness significantly and positively affected SMEs' performance. Meanwhile, innovativeness was not playing an influential role in determining SMEs' performance.

The contribution of this research is two-fold. It flourished the literature in the entrepreneurship area by re-confirming the effect of IEO on business performance. It also highlighted that IEO is a concept that should not be neglected in entrepreneurship studies. Practically, this study provided some insights on the important elements of IEO that require attention from entrepreneurs. For instance, entrepreneurs

should develop their risk-taking ability and proactiveness to ensure good business performance. Specifically, training that is related to enhancing those two abilities should be provided to existing entrepreneurs as well as future entrepreneurs. As for innovativeness, it should not be neglected because it is an important element in facing the challenges brought by IR 4.0 and 5G technology.

Several limitations were found in the study. The sample in this study was SMEs from the service sector. It would be great if future studies could expand the sample into the manufacturing sector or other sectors as well. Furthermore, the three-dimensional IEO construct was used. Future studies could consider using a five-dimensional IEO construct. Lastly, this paper examined the direct relationship between IEO and performance. Future researchers could examine moderating or mediating effects in explaining the relationship in a greater depth.

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