AN EVALUATION ON DETERMINANTS OF SMES PERFORMANCE IN MALAYSIA

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ABSTRACT

'Transformation of Economic Development' is aimed to transform Malaysia to become a high-income developed nation with a knowledge-based economy by 2020. Economic development in the new millennium would involve business competencies and their resilience in order to face a competitive and global environment. Therefore, it is necessary to examine the determinants of SMEs performance as they will expediate the transformation of Malaysia into this new economic model. This study thus aspires to investigate the determinants of SMEs performance of the service sectors in Malaysia using structural equation modelling-partial least squares (SEM-PLS) method. Based on the data collected from 400 SMEs in the Malaysian services sector, the results show that there are significant positive relationships between human resource management (HRM), market orientation (MO) as well as information communication and technology (ICT) on the performance of SMEs, whereas, there is negative relationship of entrepreneur orientation (EO) on the SMEs performance. The results also indicate that human resource management and market orientation are the highest influential factors among the determinants. It is thus suggested that for future planning, SMEs owners or managers can delve into these two aspects so as to develop more on their businesses potentials.

Key words: Economic development, SMEs determinants, business performance, new economic model, SEM-PLS.

Introduction

Most of the developed and developing countries have come to realize the significance of SMEs in terms of jobs created, poverty reduction and increase in the growth domestic product (GDP) (Nieman *et al*., 2003). Schröder & Rodermund (2006) had highlighted that the economists also agreed that the wealth of a nation and growth of economies were highly dependable on the performance of SMEs. Besides, SMEs had simpler, more centralized decision making structures with a short-term planning compared to larger firms (Rohde, 2004). The influence of product differentiation and government regulations with working capital as a moderating variable had been studied by Sukesti *et al*. (2014) for the development strategy in analyzing SMEs performance in Semarang, Indonesia, while Ratnasiri (2014) had found out that financial reporting practices should be incorporated into the Information systems in Sri Lanka with emphasis on the financial management practices.

The Initial Public Offering (IPO) via trading volume could be considered to be one of the most significant events in the life cycle of a company (Latham & Braun, 2010). The valuation of initial public offerings (IPOs) and the setting of IPO offer prices represented a challenging crossroads between valuation theory and practice (Brau & Fawcett, 2004). Going public would allow large firms to raise and access funds necessary to facilitate and accelerate growth in order to achieve market leadership eventhough it is also associated with a substantial amount of risk and uncertainty (Ernst & Young, 2010). An IPO can facilitate future acquisitions, higher valuations, debt reductions and public profile enhancement. Growing SMEs in becoming large firms would ultimately come to their cross roads in making decisions to go public (Latham & Braun, 2010), while Ivanov & Xie (2010) had found that corporate venture capitalists do add value to startup firms where the coefficient estimate of backward citations was statistically significant and indicated that CVC investors were more likely to acquire a portfolio venture when part of the uncertainty associated with the venture was resolved.

According to Atiase *et al*. (2011), models of financial economists had demonstrated that there were three distinct fundamental determinants of trading volume reaction to new information releases, namely, the extent of differences in investors' prior beliefs, differences in their interpretations of the information, and the level of consensus that the information release induced among them. Although these effects were well-understood theoretically, empirical studies that investigated trading volume reaction to the arrival of new information had tended to combine these three fundamental determinants, thereby masking their distinct incremental effects on trade. They had examined all three potential sources of trade in response to information: heterogeneous prior beliefs, differential interpretation, and the consensus effect of the news, and found that all three of these effects had a distinct incremental impact, i.e. significantly and positively related to trading volume, thereby verifying the theoretical models of financial economists.

According to Blum (2011), IPO market was an appropriate economic indicator to support for capital demand, investor sentiment and stock market condition as determinants of IPO fluctuations. Her results had suggested that the uncertainty surrounding the latest financial crisis had caused the average amount of IPO proceeds to decrease. She examined the transition from private to public company at the firm specific level. The size of an offering seemed to be dependent upon macroeconomic conditions as well as firm specific characteristics. However, statistical significant differences between firms who had gone public during a recession and those who had waited for markets to improve were not found in her study.

Days payable outstanding (DPO) is an efficiency ratio that measures the average number of days a firm takes to pay its suppliers. Besides providing one measure of how long a business holds onto its cash, it can also be used to compare one company's payment policies to another. Having fewer days of payables on the books than your competitors means that the competitors firms are getting better credit terms from their vendors. Having a greater days payables outstanding may also indicate the company's ability to delay payment and conserve cash. This could arise from better terms with vendors. If a company is selling something to a customer, it can use that customer's DPO to judge when the customer will pay (and thus what payment terms to offer or expect). Being a critical part of the "Cash Cycle", which measures DPO and the related Days Sales Outstanding and Days In Inventory, when combined these three measurements, it can tell us how long (in days) between a cash payment to a vendor into a cash receipt from a customer. For SMEs, this is useful because it indicates how much cash a business must have to sustain itself. Jahanzeb *et al.* (2015) have investigated the relationship between market power and capital structure in any developing economy. There is a significant and positive relation between market power and capital structure. Size and liquidity remained significantly negative with capital structure, whereas profitability and dividend payout remained significantly positive with capital structure.

Accounts payable turnover ratio is an accounting liquidity metric that evaluates how fast a company pays off its creditors (suppliers). The ratio shows how many times in a given period (typically 1 year) a company pays its average accounts payable. Payment requirements will usually vary from supplier to supplier, depending on the firm's size and financial capabilities. A high ratio means there is a relatively short time between purchase of goods and services and payment for them. Conversely, a lower accounts payable turnover ratio usually signifies that a company is slow in paying its suppliers. Khan *et al.* (2012) had investigated the effects of working capital management on firm's profitability in Pakistan in four different sectors, viz. textile, chemical, engineering and sugar. Inventory turnover, average payment period, current ratio, firm size, average collection period and debit ratio were used. Average collection period (ACP), inventory turnover in days (ITID), average payment period (APP) were major determinants on working capital management. Inventory turnover, current ratio and firm size were found to have significant effects on firm's profitability in all of the sectors. Management of working capital refers to the 'management of current assets and current liabilities, and financing these current asset'. Khan *et al.* (2012) found that if these firms managed their cash, accounts receivables and inventories in a proper way, this would ultimately increase profitability of these companies and hence their performance.

Malaysian small and medium enterprises (SMEs) had contributed to the nation's economic development and would thus strengthen the resilience of Malaysian businesses in order to face a competitive and global environment (Normah, 2006). The Malaysian SMEs had been reported to have contributed 6.3 percent of growth domestic product (GDP) and 5.9 percent of total employment (SME Annual Report, 2013/2014). During the years of 2005-2013, SMEs economic activities were largely contributed by the services sector, and followed by the construction sectors as well as the mining sectors. Despite of SMEs contributed largely in a nation economy, in many countries SMEs had faced various challenges. A survey by SMIDEC (2002), had listed the new challenges faced by SMEs of Malaysia, domestically and globally. These challenges involved the followings:
1.   Intensified global competition
2.   Competition from other producers
3.   Limited capability to meet the challenges of market liberalization and globalization
4.   Limited capacity for technology management and knowledge acquisition
5.   Low productivity and quality output
6.   Shortage of skills for the new business environment
7.   Limited access to finance and capital, and the infancy of venture funds in initial
8.   High cost of infrastructure
9.   A general lack of knowledge and information

Recognizing the SMEs potential, the government of Malaysia has generated many efforts in encouraging SMEs especially those involve in international business. For example, in 2008, it had allocated RM3.2 billion for 198 SME development programs across all economic sectors. In conjunction with the Ninth Malaysia Plan (2006-2010), the government had devoted and designed the SME development plan in order for the SMEs to meet new business challenges. The Ninth Malaysia Plan (9MP)'s documents encompassed the strategies, programmes and required allocation to realise the National Mission and make Malaysia a country that would be more advanced, fair and united. The documents also described the National Mission as the framework for policy and implementation which consisted of five main cores to achieve the objective of Vision 2020. As a consequence, a research on the determinants of the SMEs would thus be crucial in determining the required strategies to elevate Malaysian SMEs.

Hence, the objective of this study is to evaluate on the determinants of the SMEs performance in Malaysia. The significance of this study is to develop business competencies among owner-managers of SMEs. On top of that, policy makers could also generate motivational strategies for SMEs sustainability. This paper is thus organized into five sections. The introduction section discusss the role of SMEs in other countries and its importance and challenges in Malaysia. The next section discusses on the literature review related to the determinants of SMEs. Section three elaborates on the method of Structural Equation Modelling-partial least squares (SEM-PLS) used through out this study. The following section then presents on the data analysis and findings, and the final section on the discussions and conclusions of this study.

Literature Review

Moorthy *et al.* (2012) investigated the factors affecting SMEs performance in Malaysia. 300 SMEs in the manufacturing sectors in Malaysia were involved in their study. The results indicated that the effective entrepreneurship, appropriate human resource management, marketing information and application of information technology had significant positive relationships with the performance of SMEs. In addition, market orientation showed the highest indicator which contributed to SME's performance.

Noraini and Nurul (2015)[a] have also done a study on the performance index of SMEs. However, this study focusses only on the owners/managers in the services sector in Selangor, Malaysia. The results show that there are significant relationships between entrepreneur orientation (EO), marketing orientation (MO), human resource management (HRM) and information communication technology (ICT) towards SMEs performance. However, HRM is found to be the highest significant factor toward SMEs performance in the services sectors. At the same time, the study views on the gender workforce in SMEs. Thus, it seems to be that the SMEs owners/managers is still dominated by the male workforce, despite efforts to encourage women participation in entrepreneurial activities.

Najihah *et al.*(2014) had also identified the determinants which were important for the performance of enterprises. The sample comprised of a total of 158 small enterprises under *Tunas Mekar* in Terengganu and Kelantan, Malaysia. Only 62 respondents had responded to the survey. From the multiple regression analysis, three variables had significant relationships with the enterprise's performance, viz. entrepreneur characteristics, management practice, training and guidance. The management practices especially on the financial, accounting, marketing and operations were very important factors in determining the performance. This was supported by Agarwala (2003) where HRM practices were systematically designed towards improving the effectiveness of SME's performance.

Much scholarly attention were attributed to knowledge spillovers and strategic entrepreneurship but these have largely been considered separately rather than in conjunction with each other (Agarwal *et al.*, 2007). Implications of the link between knowledge spillovers and strategic entrepreneurship had thus been identified from key topics, themes, and issues for future planning and research. Sukesti *et al.* (2014) had also studied on the development strategy for the SMEs performance through product differentiation and government regulations. In their work, working capital was found to be a moderating variable in increasing productivity and innovation through differentiation of products in diverse markets.

Sany *et al.*(2009) had also examined on the market orientation critical success factors of Malaysian manufacturers and its impacts on the financial performance. Five critical success factors of market orientation in Malaysian manufacturing firms had been identified: market focus, market action, market planning, market feedback and market coordination. Unfortunately, only market action and market planning were positively related to the financial performance. Besides, information and Communication Technologies (ICT) had been adopted in most of the developed countries especially by large firms. The issues brought upon on the technology among SMEs seemed to be less in number (Ramayah *et al.*, 2009). Therefore, it was crucial for SMEs to adapt and adopt the ICT in current business competencies. The information technology could help SMEs in data organization, and hence managed their accounts (Chen & Mahani, 2014). Subrahmanya *et al.* (2011) also stated that SMEs would have a higher growth through ICT adoption.

Methodology

Sampling and Data Collection Procedures

This study used a random sample of SMEs registered in Malaysia. A survey questionnaire was conducted on SMEs owners/managers located in Selangor and Sabah in the service sectors. Using the contact information which was given by SME Corporation Malaysia, a total of 400 questionnaires were distributed through appointments and emails; however, only 279 usable responses were obtained which produced a response rate of 69.7 percent. The responses of this nine-item questionnaire used a five point Likert scale on which the owner/managers had to indicate the extent to which the items represented their firm's strategy. The data were then analyzed and interpreted using the Statistical Package for Social Science (SPSS) 20.0 and SmartPLS 3.0 software program (Ringle *et al.*, 2004). SPSS was used to analyze the demographic profiles of the respondents, while the partial least squares-structural equation modelling (PLS-SEM) was used to investigate the determining factors affecting the performances of the SMEs. The followings were the determinants on the performance measures evaluated in this study.

Performance Measures

SMEs Performance
Subjective approach or also known as non-financial measures on the enterprise performance was used in this study. Under this approach, the perception of the owners/managers through responses in the questionnaires were taken into account to measure the firm performance. The owners/managers were asked to state their firm's performance criteria especially on the profitability. This approach were used instead of financial measures because of the availability to obtain the data. This was supported by Sany *et al.*(2009) where mostly the managers were reluctant to give information for privacy purposes. Small business performance measure was adapted from Rivard *et al.* (2006) and Merrilees *et al.* (2011).

Entrepreneurial Orientation (EO)

EO was measured by seven items, all developed by Covin & Slevin (1986, 1988), based on the work of Miller & Friesen (1982), and Khandwalla (1976/77). The EO questionnaire contained three sub-dimensions; innovativeness, pro-activeness and risk-taking.

Human Resource Management (HRM)

The variables for management practices were measured using a total of 7 items, i.e. behavior and attitude, team activities, incentives to meet objectives, training as well as communication of strategy. These measurement were adapted from Mowday & Steers (1979) as well as Taylor & Bowers (1972).

Market Orientation (MO)

The study utilized the collection and use of market information, development of market-oriented strategy and implementation of market oriented-strategy scales of Gima (1995). The items of measuring were created from the following methods from Hooley *et al.* (2001), Gima (1995), Lado *et al.* (1998), Farrell (2002), Helfert *et al.* (2002) and Bigné *et al.* (2004).

Information Communication Technology (ICT)

The information technology uses a five-item scale measure, all adapted from Chen & Paulraj (2004).

In this study, the dependent (DV) and independent variables (IVs) were adopted and modified from previous literatures. There were seven items measured under entrepreneur orientation (EO) which were adopted from Rosli & Norshafizah (2013). Similarly, seven items were measured under human resource management (HRM) from Ahmad & Schroeder (2003), and for market orientation (MO), only six items were measured (Tomaska, 2009). In addition, five information technology (ICT)'s measurements were used with single item measure for SMEs' performance had been adopted from Chinomona (2013). Figure 1 below depicted the conceptual framework of the of relationships between DV and IVs with SMEs Performance as the dependent variable (DV) and Entrepreneurship Orientation (EO), Human Resource Management (HRM), Marketing Orientation (MO), Information and Communication Technology (ICT) as the independent variables (IVs). The following hypotheses were obtained as in Noraini & Nurul (2015)[b]:

H1:   Entrepreneur Orientation is positively related to SMEs performance.
H2:   Market Orientation positively related to SMEs performance.
H3:   Human Resource Management is positively related to SMEs performance.
H4:   Information and Communication Technology is positively related to SMEsperformance.
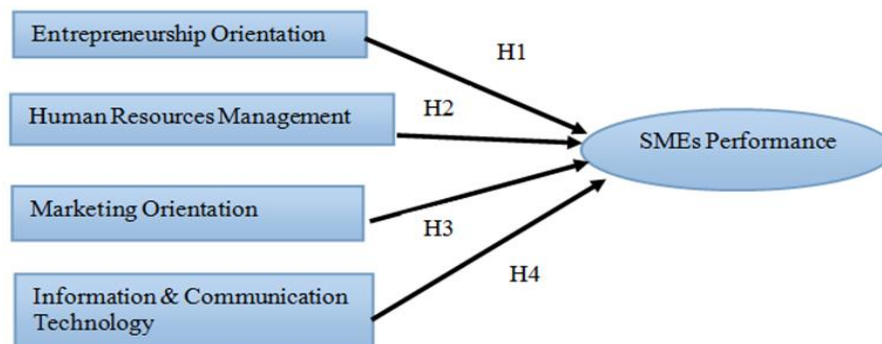

Figure 1: The Conceptual Framework of Relationships between IVs and DV (Moorthy *et al*., 2012).

A summary of the validity guidelines using PLS-SEM and analysis for the measurement and structural models were similar to Noraini & Nurul (2015)[b].

Data Analysis and Findings

Reliability Scores

The instruments used in this study were developed from previous literature. Reliability tests were conducted to determine the internal consistency of the performance indicators namely, entrepreneur orientation (EO), human resource management (HRM), market orientation (MO) and information communication technology (ICT). As can be seen in Table 1, the Cronbach's Alpha achieved for entrepreneurial orientation, human resource management, market orientation and information communication technology were greater than 0.7. These indicated that the questions used in the survey instruments possessed high reliability and consistency (Nunnally, 1978).

Table 1: Reliability Scores for Performance Indicators

INDICATORS	NUM OF ITEMS	CRONBACH'S ALPHA
Entrepreneur Orientation	7	0.923134
Human Resource Management	7	0.848402
Marketing Orientation	6	0.912753
Information and Communication Technology	5	0.827532

Sample Characteristics

The profiles of the sample respondents based on gender, age and education were illustrated in Table 2. The respondents consisted of 74.6 percent males and 25.4 percent females. Respondents in the age group of 21-35 years comprised of 20.8 percent, 36-45 years at 35.1 percent and majority of them were in the age group of 46 years and above at 44.1 percent. Respondents with primary school education was at 14 percent, Diploma or Degree level was at 35.5 percent and others was at 3.2 percent. Majority of them had secondary level of education at 47.3 percent.

Table 2: Profile of Respondents

Characteristics		Frequency	Percentage
GENDER	Male	208	74.6
	Female	71	25.4
AGE	21 - 35	58	20.8
	36 - 45	98	35.1
	46 and Above	123	44.1
EDUCATION	Primary School	39	14.0
	Secondary School	132	47.3
	Diploma / Degree	99	35.5
	Other	9	3.2

Hypotheses Testing

Partial Least Square (PLS) was used to test the relationship between entrepreneurial orientation (EO), human resource management (HRM), market orientation (MO) as well as information communication technology (ICT) with the performance of SMEs. The structural model analysis was shown in Table 3. Each path connecting two latent variables would represent a hypothesis. Based on the t-statistics output in Table 3, the significant level of each relationship was examined with a value of at least 0.1, had a positive sign direction and a path coefficient value (β) ranging from 0.087 to 0.502 (Hair *et al*., 2011; Wetzels *et al*., 2009). Assessment of path coefficients for the structural model showed that all the proposed hypothesis (H2, H3 and H4) were supported except for entrepreneur orientation, H1.

Table 3: Structural Model Analysis

	Path Coefficients (β)	T Statistics	Supported	Hypotheses
EO => PERFORMANCE	0.053	0.993	NO	H1
HRM => PERFORMANCE	0.117	2.237	YES	H2
ICT => PERFORMANCE	0.087	1.463	YES	H3
MO => PERFORMANCE	0.502	9.808	YES	H4

Discussions and Conclusions

This study investigated the determinants of SMEs performance in the service sectors in Malaysia. Findings showed that the SMEs activities of the services sector in Malaysia were still being dominated by the male population at 74.6 percent. Comparisons with the developed (Selangor) and developing (Sabah) states in Malaysia indicated that eventhough efforts to increase women active involvement had been carried out, there were still room for constructive and continuous development programs to be executed (Noraini & Nurul, 2015[b]). The majority of the managerial workforce was with the secondary education level at 47.3 percent, and in the age group of 46 years and above at 41.1 percent. An evaluation on these determinants discovered

that human capital development should be further enhanced to attract younger entrepreneurs, like in terms of incentives and entrepreneurial skills for young graduates to be involved in entrepreneurship. Significant conclusion from this study was that human resource management, market orientation as well as information communication and technology had significant positive effects on the business performance. This would mean that as the human resource management, market orientation and information communication technology level increased, the degree of business performance would also increase. These determinants would help the SMEs to sustain their business in the future. A study on the SME's performance determinants in the services sectors could provide owners/managers with the knowledge as to what type of development was necessary in order to compete in current global environment. The performance of SMEs seemed to be influenced the most by human resource management and market orientation. On the contrary, Moorthy *et al*. (2012) had found that market orientation was the most influential determinant in the manufacturing sectors in Malaysia. In line with the Malaysian transformation of economic development programs, human capital development was an important aspect of the organizational strategy. Therefore, it could then be suggested that owner/managers were encouraged to identify the missing market orientation practices in their businesses in order to achieve the optimal SME performance. With these, firms could develop a good marketing strategy in their administration so as to compete effectively and efficiently. However, the findings of this study were limited to the Malaysian SMEs in the services sector. Thus, for further research, researchers can extend this study on other industries such as manufacturing, construction, agriculture and telecommunication. Furthermore, this study can also help business consultants and SME owners/managers to acquire the necessary and relevant skills that are needed to be competitive in the global market and in the business world.

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