



Comparative Study on the Determinants on SMEs Performances in Selangor and Sabah, Malaysia

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Abstract

This study aims to describe the determinants on the performances for Small and Medium Enterprises (SMEs) in Selangor and Sabah, Malaysia. A survey questionnaire is the instrument used for data collection on SMEs involve in the services sector. PLS-SEM follows a two-step process that involves separate assessments of the measurement model and the structural model for both states. Each process of model evaluation follows a form of validity guidelines. The observed variable in this study is the SME's performance, while the latent constructs are: Entrepreneur Orientation (EO), Human Resource Management (HRM), Market Orientation (MO) and Information and Communication Technology (ICT). This paper will only discuss on the preliminary findings before further analysis can be carried out. The results obtained show that there are positive relationships between EO, HRM, MO and ICT with respect to the managers' entrepreneurship of the SME's and their performances.

Keywords: Small and medium enterprises (SMEs), Partial least square (PLS), Structural equation modelling (SEM), Entrepreneurship, Performances.

1. Introduction

Small business performance was closely related to the performance of a country's economic growth (Chittithaworn *et al.*, 2011). According to SME Annual Report (2014) the emphasis in 2014 continues to focus on SME and entrepreneurship development through productivity and innovation led-growth. In 2014 Budget announcement, initiatives to generate the innovative of SMEs under the Green Lane Policy have been extended to the end of 2017. Besides, the Government has announced that SMEs are not adversely affected and are able to adjust their businesses to the on-going policy such as Minimum Wage Policy and Goods and Services Tax (GST). Efforts are continued in developing human capital to accelerate Malaysia's progress towards becoming a high income nation. In line with the goal of SME was to raise the Growth Domestic Product (GDP) of 41% by 2020. Furthermore, in the period of 2005-2013 the GDP was largely contributed by the services sector followed by the construction and mining sectors. This elucidates the importance of the sector as a contributor to facilitate both the economics in developed and developing nations (Beaver, 2002). Hence, the Government has implemented programs and policies to ensure a more significant involvement of *Bumiputera* participation in the modern sector.

The objective of this study is to describe the comparative study on the determinants of the performances for Small and Medium Enterprises (SMEs) in Selangor and Sabah, Malaysia. Therefore, this paper will provide insights to researchers, practitioners, owners and managers on the importance of the dimensions of entrepreneurial orientation, market orientation, human resource management and information communication technology towards the SMEs performance.

2. Literature Review

2.1. Smes Performance

Performance is the key interest of each business owner. Performance can be characterized as the firm's ability to create acceptable outcomes and actions stated by Eniola and Entebang (2015). Furthermore, Najihah *et al.* (2014) explained that SMEs business performance indicators include the sales, profit, business stability, business growth, an increase in the number of employees, customer satisfaction, increase in the value of assets and business networking. On the other hand, Enolia and Entebang (2015) highlighted that accounting-based measures based on profitability may also be used such as return on sales (ROS), return on assets (ROA) and return on equity (ROE).

2.2. Entrepreneurial Orientation (EO)

According to Jawad *et al.* (2014), empirical studies on the determinants of firm performance have shown that the entrepreneurial orientation (EO) of a firm has significant positive influence on the firm performance. In order to attain sustainable competitive advantage and superior performance, the current study suggests that the owners/managers of SMEs should adopt the EO mindset. This was supported by Roslan *et al.* (2014) which also showed that there was a significant relationship between entrepreneurial orientation and SME's performance. Besides, this could prepare the owners with a knowledge of entrepreneurship skills.

2.3. Market Orientation (MO)

Less attention has been paid by small and medium business owners to marketing strategies (MO) and tools stated by Jamal (2005). However, according to Aliyu and Rosli (2014), MO was one of the important tools in measuring SMEs business performance. This is highlighted by Noor (2015) on how owners run the business, making decisions and respond to the opportunities. Furthermore, MO provides better understanding of the environment and customer needs (Grainer and Padanyi, 2005).

2.4. Human Resource Management

Management practice is defined in terms of funding, marketing, operations and human resource as stated by (Najihah *et al.*, 2014). Weak in the management practice would result in the negative impact on business performance (Gaskill *et al.*, 1993). Training and guidance were the learning programs aimed to improve individual performance through enhanced knowledge, skills or attitudes (Huang, 2001). According to Bank Negara Malaysia (2006), a survey conducted by the Human Resource Development Fund (HRDF) for the period 2000 to 2002 found out that the majority of owners of small enterprises confirmed that the program they undertook had a positive impact on job performance, product quality, employee productivity and employee satisfaction.

2.5. Information and Communication Technology

ICT has sped up the pace of globalization and increase the complexity of business practices. Therefore, a county needs a strong ICT-skills base to compete globally (Akomea-Bonsu and Sampong, 2012). However, Das *et al.* (2011) explained that the ICT impacts varies according to the type of technology used. It was a crucial issue particularly in the case of the SMEs impact on ICT. Subrahmanya *et al.* (2010) found out that SMEs had a higher growth through ICT adoption.

2.6. Partial Least Square - Structural Equation Modeling (PLS-SEM)

In marketing and management research, structural equation modeling (SEM) has become a common method to analyze between each latent constructs and observed indicators (Hair *et al.*, 2011). There were two types of SEM, namely covariance-based SEM (CB-SEM) and partial least square SEM (PLS-SEM). In this paper, PLS-SEM method is used. Hair *et al.* (2011) highlighted that there are two components of a SEM with latent constructs. The first component was referred to as the inner model and the second component comprises the measurement models also referred to an outer model. Hence, PLS-SEM follows a two-step process that involves separate assessments of the measurement models and the structural model.

3. Methodology

3.1. Research Framework and Hypotheses

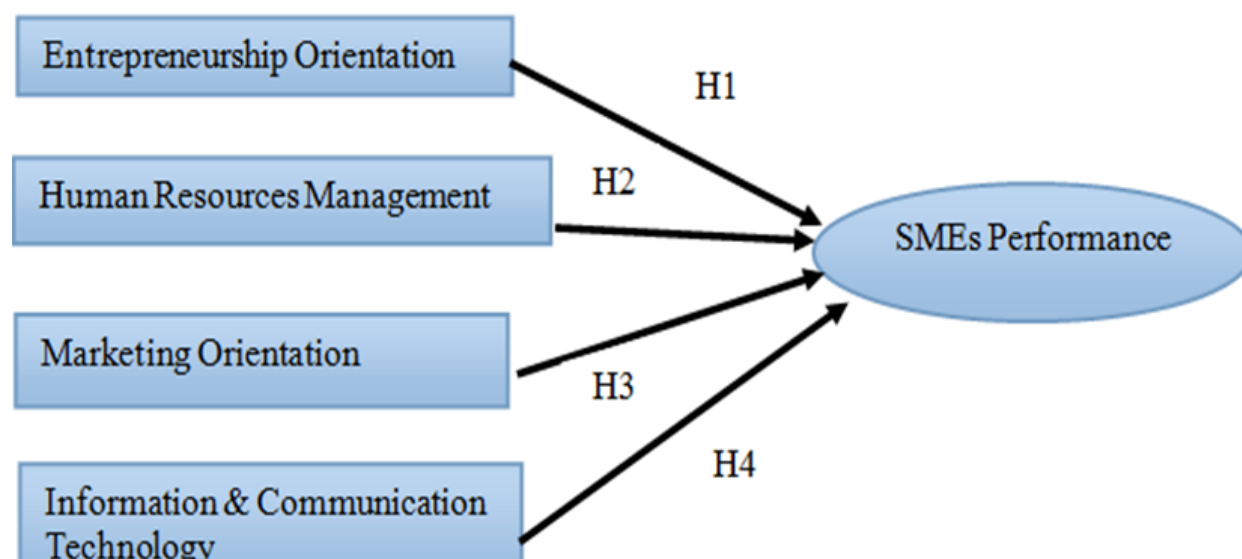


Figure-1. The Framework of Relationship between IV and DV Adapted from: Moorthy *et al.* (2012)

Figure 1 shows that the dependent variable is the SME's performance and four independent variables, namely, Entrepreneurship Orientation, Market Orientation, Human Resource Management and Information and Communication Technology. The following hypotheses are obtained:

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 SMEs performance.

3.2. Data Preparation

The list of SMEs service sectors which was registered in the directory of SME Corp Malaysia served as the population frame of this study. A total of 400 questionnaires were distributed evenly to the owners/managers of SMEs in Shah Alam and Kota Kinabalu, thus representing the states of Selangor and Sabah respectively. After the data screening process, a total of only 279 were usable. Hence, a 69.75% of response rate was successfully achieved. A pilot test involving 25 respondents was performed in order to evaluate the reliability of dependent and independent variables. The data preparation processes involve the data entry into a database, data filtering and finding any missing responses. Out of 400 responses, about 121 responses were found to be incomplete and have missing values. Thus, the missing values were replaced with a number -99 as a replacement in excel. Next, the importation of data in SmartPLS takes place in order to validate the data.

Data was analyzed and interpreted by using Statistical Package for Social Science (SPSS) 20.0 and SmartPLS 3.0 (Ringle *et al.*, 2004) software program. Descriptive statistics forms the demographic profiles of the respondents, while the reliability test is the measurement tool on the questionnaires distributed. A brief summary is given below:

- 1) *Descriptive statistic analysis*: A preliminary understanding of the basic features and give insight into the demographic profiles of respondents.
- 2) *Reliability Test*: To measure the reliability of the information (measurement tool) stated by Hsu *et al.* (2011). Reliability of this study is primarily Cronbach's α coefficient of 0.950. The higher its value, the better the consistency within the scale. According to Li (2007), the Cronbach's α coefficient of must be at least 0.7.
- 3) *Correlation Coefficient*: Pearson Correlation Coefficient is used to differentiate measures of a construct from one another. For this study, SPSS is used to obtain the Pearson's correlation coefficient values,
- 4) *Multiple Regression*: R^2 value indicates the amount of variance in dependent variables that is explained by the independent variables.

4. Data Analysis and Results

4.1. Demographic Profiles of the Respondents

Table-3. Demographic Profile for Selangor and Sabah

Category	Selangor		Sabah	
	N	Percentage %	N	Percentage %
Gender				
Male	129	86.0	79	61.2
Female	21	14.0	50	38.8
Age				
21 - 35	14	9.3	44	34.1
36 - 45	54	36.0	44	34.1
46 and Above	82	54.7	41	31.8
Education Level				
Primary School	20	13.3	19	14.7
Secondary School	64	42.7	68	52.7
Diploma / Degree	62	41.3	37	28.7
Other	4	2.7	5	3.9

In Selangor, 86% of the owners/managers of SMEs were male and 14% were female. In Sabah, 61.2% were male and 38.8% were female respectively. The results showed that more than half of the SME's owners were men. On top of that, female entrepreneurs in Sabah was higher compared to Selangor. Thus, these results indicated that the female entrepreneurs were catching up with the number of male entrepreneurs in today's business environment. This is in line with the SME Annual Report (2012/2013) which has highlighted on the Amanah Ikhtiar Malaysia (AIM) benevolent efforts to create 4,000 women entrepreneurs by 2012 under the flagship of the National Key Result Area (NKRA).

The study has also considered age and educational background of SMEs owners/managers. In Selangor, 9.3% of the owner-managers were 21 -35 years old, 36% were at the age between 36 - 45 years old and 54.7% were above 46 years old. In contrast, in Sabah, 34.1% of the owner-mangers were 21-35 years and between 36-45 years, while about 31.8% of them were above 46 years and above. As for the age level, the results showed that in urban area (Selangor) comprised of veterans entrepreneurs, while in sub-urban area (Sabah) was dominated by younger entrepreneurs.

For education level, 13.3% of the owners in Selangor had educational qualification of primary school with 42.7% were found with secondary school's qualification and 41.3% with Diploma/Degree qualifications. Only 2.7% with other qualifications, meanwhile in Sabah, 14.7% of the owners were having educational qualification of primary school, with 52.7% were found with secondary school's qualification and 28.7% with Diploma/Degree qualifications. Only 3.9% with other qualifications. Table 3 tabulated that most of the SME owners with a secondary qualification background. Efforts continued towards developing human capital through high quality training programs and implementation of the Malaysia Education Blueprint 2013-2025 (SME Annual Report, 2014).

4.2. Reliability Test

Table-4. Cronbach’s Alpha

Indicators	Num Of Items	Cronbach’s Alpha
SMEs Performance	2	0.706
Entrepreneur Orientation	7	0.888
Human Resource Management	7	0.903
Marketing Orientation	6	0.732
Information & Communication Technology	5	0.808

Table 4 showed that the cronbach’s alpha for entrepreneurs orientation (EO), human resource management (HRM), marketing orientation (MO) and information and communication technology (ICT) were 0.888, 0.903, 0.732 and 0.808 respectively. Hence, all of the indicators for factors affecting small and medium enterprises (SMEs) performance were acceptable and reliable.

4.3. Correlation Coefficient

Table-5. Latent Variables Correlation for Selangor

Variables	EO	HRM	ICT	MO	SME PERFORMANCE
EO	1				
HRM	0.671	1			
ICT	0.771	0.733	1		
MO	0.775	0.857	0.760	1	
SME PERFORMANCE	0.742	0.866	0.744	0.759	1

According to Hair *et al.*, (2006), the correlation coefficient between each pair of independent variables in the Pearson’s correlation should not exceed 0.90. In Table 5, the highest correlation coefficient was between HRM and SME performance with 0.866.

Table-6. Latent Variables Correlation for Sabah

Variables	EO	HRM	ICT	MO	SME PERFORMANCE
EO	1				
HRM	0.469	1			
ICT	0.200	0.487	1		
MO	0.424	0.644	0.451	1	
SME PERFORMANCE	0.500	0.670	0.544	0.527	1

Table 6 showed that in Sabah, the highest correlation coefficient was 0.644 between human resource management (HRM) and market orientation (MO). In addition, significant correlations among the four independent variables were observed, which indicate that they measured the intended concepts.

4.4. Hypothesis Testing

Table-7. Multiple Regression on the Determinants of SME Performance

	Selangor		Sabah		Sig
	T-Statistics	β	T-statistics	β	
EO	4.261	0.155	2.462	0.264	0.000
HRM	10.525	0.500	5.858	0.773	0.000
ICT	7.765	0.160	1.577	0.328	0.000
MO	3.896	0.242	1.021	0.061	0.000
R square	0.992		0.986		

In order to test the hypotheses, regression analysis was conducted. Table 7 tabulated the regression analyses on the determinants of SMEs Performance in both states. The first hypothesis pointed out that EO had statistically significant effect on SME Performances. The results of regression analysis revealed that EO with $\beta=0.155$, $t=4.261$, $p=0.000$ for Selangor and $\beta=0.264$, $t=2.462$, $p=0.000$ for Sabah. The second hypothesis, which suggested that MO was positive related to SME performances. The results revealed that this variable had statistically significant impact with $\beta=0.242$, $t=3.896$, $p=0.000$ in Selangor. In contrast, MO had statistically significant impact with $\beta=0.061$, $t=1.021$, $p=0.000$. The third was about HRM with SME performance. This hypothesis was fully supported since the results suggested that this variable had significant effect of $\beta=0.500$, $t=10.525$, $p=0.000$ and $\beta=0.773$, $t=5.858$, $p=0.000$ for Selangor and Sabah respectively. The final hypothesis suggested that ICT was positively related to SME performance. The results revealed that this variable had statistically significant impact of $\beta=0.160$, $t=7.765$, $p=0.000$ for Selangor and $\beta=0.328$, $t=1.577$, $p=0.000$ for Sabah. From table 7, it was notable that these four main variables managed to explain about 99.2% of variance in SME performance in Selangor. However, in Sabah these four main variables managed to explain about 98.6% of variance in SME performance.

5. Discussions and Conclusion

In economic development, SME's contributed to employment and poverty reduction especially in under developed rural and urban areas. Female entrepreneurs in Sabah was higher compared to Selangor. Thus, this indicated that the female entrepreneurs were catching up with the number of male entrepreneurs in today's business environment. Selangor was dominated by entrepreneurs within the age group of 46 and above which were represented by 54.7%. However, younger entrepreneurs in Sabah were dominated with the age group of 21-35 and 36-45 years of age. This situation was confirmed by Antwi *et al.* (2015) that, more young people were involved in the informal economy than older people. The study again revealed that 42.7% and 52.7% owners of SMEs had secondary education in Selangor and Sabah respectively. In addition, SMEs businessmen in Selangor had tertiary education background with 41.3% which was slightly higher compared to Sabah with only 28.7%. Therefore, efforts must be continued towards developing human capital through high quality training programs and the implementation of the Malaysia Education Blueprint 2013-2025 (SME Annual Report, 2014). The preliminary analysis in this study proved that the construct validity and reliability of each variable was substantiated. This study highlighted that entrepreneur orientation, human resource management, market orientation and information communication technology were the indicators used to measure the performances of SMEs and have significant positive relationships with SME's performance. Further work can therefore take place using the PLS-SEM analysis. Since this study was limited to only focus on the services sector, future works can also be devoted to study for different sectors.

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References

- Aliyu, M. S. and Rosli, M. (2014). Market Orientation and Organizational culture's impact on SME Performance: ASEM approach. *International Affairs and Global Strategy*, 24, pg 1-10.
- Akomea-Bonsu, C. and Sampong, F. (2012). The Impact of Information and Communication Technology (ICT) on Small and Medium Scale Enterprises (SMEs) in the Kumasi Metropolis, Ghana, West Africa. *European Journal of Business and Management*. 4(20): 152-159.
- Bank Negara Malaysia. (2006). Laporan tahunan PKS 2005. Bank Negara Malaysia, Kuala Lumpur.
- Chittithaworn, C., Aminul, M., Keawchana, I.T., and Dayang, H. M. Y. (2011). Factors Affecting Business Success of Small and Medium Enterprises (SMEs) in Thailand. *Asian Social Science*. 7(5): 180-190.
- Das, S., Yaylaci, U. and Menon, N. (2011). The effect of information technology investments in healthcare: a longitudinal study of its lag, duration, and economic value. *IEEE Transactions on Engineering Management*, 58 (1): 124-38.
- Eniola, A. and Entebang, H. (2015). Government Policy and Performance of Small and Medium Business Management. *Journal of Academic Research in Business*. 5(2): 237-248.
- Gaskill, L.R., H.E.V. Auken and R.A. Manning. (1993). A Factor Analytic Study of the Perceived Causes of Small Business Failure. *Journal of Small Business Management*, 31 (4): 18-31.
- Grainer, B. and Padanyi, P. (2005). The relationship between market-oriented activities and market-oriented culture: implications for the development of market orientation in nonprofit service organizations. *Journal of Business Research*, 58, 854– 862.
- Beaver, G. (2002). *Small business, entrepreneurship and enterprise development*. Pearson Education.
- Hair, J. F., Ringle, C. M. and Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory Practice*. 19 (2).139-151.
- Huang, T.C. (2001). The Relation of Training Practices and Organizational Performance in Small Medium Size Enterprise. *Education and Training*, 43 (8/9): 437-444.
- Hsu, I.-Y., Su, T.-S., Kao, C.-S., Shu, Y.-L., Lin, P.-R., and Tseng, J.-M.. (2012). Analysis of business safety performance by structural equation models. *Safety Science*. 50: 1-11.
- Jawad, H., Kamariah, I. and C. Shoaib, A. (2015). Linking Entrepreneurial Orientation with Organizational Performance of Small and Medium Sized Enterprises: A Conceptual Approach. *Asian Social Science*. 11(7): 1-10.
- Jamal, A. (2005). Playing to win: an explorative study of marketing strategies of small ethnic retail entrepreneurs in the UK. *Journal of Retailing and Consumer Services*, 12, 1-13.
- Li, C.C. (2007). *The Proficient SPSS Statistical Analysis in Practice and Application*, CHWA.
- Moorthy K., Annie T., Caroline C., Chang S. W., Jonathan T. Y. P. and Tan K. L. (2012). A Study on Factors Affecting the Performance of SMEs in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 2 (4), pp. 224-239.
- Najihah, M.Y., Rosman, M., Sakinah, M. Z. and Mazidah, P. (2014). An Investigation of the Small Business Start-ups' Performance. *Journal of Basic and Applied Scientific Research*. 4(3s): 10-17.
- Ringle, C., Wende, S. and Will, A. (2004). SmartPLS 3.0.M3 [Retrieved from <http://www.smartpls.de>
- Roslan, A.A., Rosli, M., Anas T., and Mohd, H.A. (2014). The Relationship between Entrepreneurial Orientation and Business Performance of SMEs in Malaysia. *International Journal of Management Excellent*. 2 (3), 221-226
- Subrahmanya, M.H.B., Mathirajan, M. and Krishnaswamy, K. N. (2011). Importance of Technological innovation for SME growth; Evident from India. *World Institute of Development Economics Research*, 3.
- Antwi, S., Inusah, A. and Hamza, K. (2015). The Effect of Demographic Characteristics of Small and Medium Entrepreneurs on Tax Compliance in The Tamale Metropolis, Ghana. *International Journal of Economics, Commerce and Management*. 3(3):1-20.
- SME Annual Report. (2012/2013). Small and Medium Enterprise (SME) Annual Report 2014. [Retrieved from <http://www.smecorp.gov.my/vn2/>
- SME Annual Report. (2014). Small and Medium Enterprise (SME) Annual Report 2014. [Retrieved from <http://www.smecorp.gov.my/vn2/>