Mediating Role of Social Media Marketing Adoption between TOE Framework and Competitive Intelligence Towards SMEs Performance

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ABSTRACT

The business landscape in Malaysia has grown fiercely competitive due to technology and globalization. Fueled by rapid technological advancement, companies, including small and medium enterprises (SMEs), are leveraging social media for product promotion. While past studies have highlighted the potential of social media for SMEs, adoption hinges on information processing by owner-managers. This study, conducted in Malaysia's East Coast (Kelantan, Terengganu, Pahang), investigates how technological, organizational, and government support, along with competitive intelligence, impact SME performance. The study draws from Resource-based View (RBV) and Diffusion of Innovation (DOI) theories, supported by the Technology, Environment, and Organization (TOE) framework. Employing a quantitative approach, 339 out of 1920 surveyed owner/managers' SMEs were analyzed using structural equation modeling (SEM-PLS). Results indicate positive links between technological, government support, competitive intelligence, and SME performance. However, organizational support's impact on SME performance varies with organizational size. Additionally, the study confirms social media marketing's mediating role between these factors and SME performance. The research paper significantly enriches the existing body of knowledge within the Technology, Environment, and Organization (TOE) framework and the realm of Competitive Intelligence as it pertains to SMEs' performance, with a notable focus on the mediating role of Social Media Marketing (SMM).

Keywords: Technological Support, Organisational Support, Government Support, Competitive Intelligence, SME Performance.

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1. INTRODUCTION

The introduction of the Internet and growth of digital technology have changed consumer preferences and forced traditional media to evolve to address and capture the attention of



consumers who are present in the virtual space. Technological advancement forced consumers to choose social media, as their main medium of communication, and consequently, sellers have been quick to seize this lucrative online market segment. Furthermore, growing numbers of Internet users suggest that online advertising is a promising avenue for the advertising industry. The rise of new media has effectively been an alternative platform for traditional media. One of the areas of SMEs that has witnessed more of a sustained research effort is the application of information and communication technologies (ICTs) such as social media. In addition, according to the World Bank (2007) Malaysian SMEs achievements are determined by six factors which are adapting innovation and technology, infrastructure, developing human capital, accessibility to financing, accessibility to markets, and legal and regulatory setting. However, despite all the above-mentioned factors, Malaysian SMEs are not doing as well as they should (Tajvidi & Karami, 2021; Parveen et al., 2016). This is because the SMEs face challenges in these very factors (Samat et. al., 2023; SME Master Plan 2012-2020). According to Mohanty and Mishra (2020), three big challenges faced by SME especially in a virtual world which are information and communication technology (ICT) literacy, security matters and government initiatives. According to Al Mamun, Che Nawi, Nasir and Fazal (2020), the adoption of social media as a marketing tool in business is not a new phenomenon in Malaysia. Most of the companies' especially large ones in Malaysia have been utilising social media as a marketing tool. However, Ali Abbasi, Abdul Rahim, Iranmanesh and Keong (2022) mentioned in their study that the use of social media as a marketing tool among SMEs in Malaysia is still low. According to Hassan, Nadzim, and Shiratuddin (2015), the application of social media marketing by the SMEs is still in its early stages. In addition, only very few studies are done on the strategic use of social media in marketing for SMEs. Thus, developing a strategy in order for small businesses to use social media as a marketing tool could potentially reduce this practical gap.

2. LITERATURE REVIEW

SMEs play an important role and have shown to be the major contributors to the socio-economic development of Malaysia. SMEs are an important component of economic growth and they have been identified as one of the key engines to drive the transformation of Malaysia into a fully developed high-income nation by 2020. In the national economy, the services sectors as a whole were the largest contributor to the GDP in the period from 2005 to 2017 while the construction, manufacturing, mining and quarrying sectors are the other sectors that are further supported to contribute to the total GDP in Malaysia (Malaysia, 2016). They differ from big companies in many aspects such as size, however the importance of SMEs to the economy is very considerable (Karimi & Naghibi, 2015). There are three different categories of SMEs in Malaysia, namely, micro, small, and medium enterprises. SME categories are defined based on two criteria, which are the total number of full-time workers and annual sales turnover. The definition covers the manufacturing, primary agriculture and services sectors with minimum annual sales threshold of RM 300, 000 or less than 5 full-time employees (Department of Statistics, 2017).

SME Performance. Performance measurement is described as "the process of quantifying action, where measurement is the process of quantification and action leads to performance" (Maurya, Mishra, Anand, & Kumar, 2015). Organisational performance is the real results of an organisation compared to the planned outcomes (Ho, 2011). From the

perspective of marketing, companies can be considered as performing when they can satisfy their customers more efficiently and effectively when compared to their competitors. The success of all businesses whether small or medium enterprises or large organisations can be seen through their performance. According to Sandberg, Vinberg, and Pan (2002), how a small business performs can be defined by their capability to lead – in creating employment and wealth by business start-ups, survival and sustainability. There are two types of performance – financial and non-financial. For this study, non-financial performance was used as an indicator to measure the SMEs performance. The reasons of selecting non-financial performance measures due to the several important benefits compared to financial performance measures (van Gijsel, 2012).

Technological Support. Technological support can be defined as the means by which organisations can adapt to their environment, control their environment and even change the environment that influence on how an organisation operates that are related to the access provided by the technology products such as mobile phones, televisions, computers, software products or other informatics, electronic or mechanical equipment (Soto-Acosta *et al.*, 2016). Technological support has been regarded as an important factor for the companies to adopt technology in order to be competitive (Gutierrez, Boukrami, & Lumsden, 2015). Study on the direct relationship between technological support and SME performance had shown a positive relationship. A study done in Spain by Soto-Acosta *et al.* (2016) shown that technological support which is seen as a strong proponent for the SMEs in order to be survive and remain competitive in the market. Based on the literature review and an analysis of empirical studies, the first hypothesis constructed for this study is: *Hypothesis 1: There is a significant relationship between technological support and SME performance*.

Organisational Support. Organisational support refers to the extent to which workers believe that their organisation values their contributions, takes care of their welfare and fulfils their socio-emotional needs (Dahnil *et al.*, 2014). Organisational support such as financial resources gauge the company's capital accessible for creating and keeping up the social media marketing venture. In particular, it alludes to the expense of site advancement, and additionally the whole upkeep, hosting, and operational capability that bolster capacities. On account of a small business, this variable is especially critical. Small organisations tend not to have the resources for IT investment (García-Moreno, García-Moreno, Nájera-Sánchez, & De Pablos-Heredero, 2016; Iacovou *et al.*, 1995). Previous researches have proven that the size of the company and the limitation of its financial resources are the determinants in adopting social media marketing to improve company's performance (Dholakia, 1995; Dholakia *et al.*, 1993; Dholakia & Kshetri, 2004). A similar finding also has been showed in study done in Thailand by Chienwittayakun and Mankin (2015). Based on the arguments and supports by the various literature, the following hypothesis was generated:

Hypothesis 2: There is a significant relationship between organisational support and SME performance.

Government Support. One of the external environments influencing e-trade selection and distribution is the government factor. Government approaches and controls will impact the SMEs' survival. For instance, incentives and tax structures for imported merchandise significantly affect SMEs' achievement (Baffour Awuah & Amal, 2011; Naudé *et al.*, 2014). Purcell and Toland (2004) suggest that governments establish legalized frameworks

in order to assist the SMEs collectively and equally in facing risks in their international ventures. SMEs will start to embrace new technology when competitors do so in order to stay ahead (Al-Qirim, 2006, 2008; El-Gohary, 2012). Government will influence the adoption of social media marketing and SMEs' survival (Dahnil *et al.*, 2014; Hanafizadeh *et al.*, 2012). According to Hanafizadeh *et al.* (2012), in order to give some assistance to SMEs, the Malaysian government should develop a legal system. As indicated by Khan and Khalique (2014), aggressive and strong SMEs are imperative in the development and improvement of the Malaysian economy as SMEs can be the mechanism for financial development as demonstrated in other developed countries both in the East and West such as Japan and Germany. Most SMEs require support or assistance from the government, particularly in being more aggressive in the international business environment. The discussions lead to the third hypothesis:

Hypothesis 3: There is a significant relationship between government support and SME performance.

Competitive Intelligence. All companies usually exhibit various methods of collecting information on their competitors and the external business environment in order to find new markets and increase revenue. However, there is an absence of a proper procedure to transfer this useful information into knowledge and intelligence that can be valuable to formulate competitive strategies (Groom & David, 2001). Bose (2008) sees competitive intelligence as a method to investigate the competitive environment, aiming to provide noteworthy knowledge that will give a focused edge to the company. Competitive intelligence involves the act of defining, gathering, analysing, and distributing intelligence with regard to any aspect relating to the condition needed by the companies in support of making strategic decisions (Vuori, 2011). According to He et al. (2013), CI is characterised by the assembly and examination of knowledge about competitor's items, advancements, deals and so forth from external sources. According to Hawking and Sellitto (2015), companies collect information about their competitors through the process of competitive intelligence and apply it in their decision making. Fan and Gordon (2014), in their study, found that competitive intelligence helps companies in making a decision by making business understand what they need to be competitive in the market. Based on the empirical studies and justification on competitive intelligence, the following hypothesis was developed:

Hypothesis 4: There is a significant relationship between competitive intelligence and SME performance.

Social Media Marketing. A study done by Felix et al. (2017) defined social media marketing as "an interdisciplinary and cross-functional concept that uses social media (often in combination with other communications channels) to achieve organisational goals by creating value for stakeholders. On a strategic level, social media marketing covers an organisation's decisions about social media marketing scope (ranging from defenders to explorers), culture (ranging from conservatism to modernism), structure (ranging from hierarchies to networks), and governance (ranging from autocracy to anarchy)" (p.123). In this study, social media marketing adoption will represent a mediating variable. A study by El-Gohary (2012) and Dahnil *et al.* (2014) revealed that technological support such as cost effectiveness, interactivity and compatibility have positive relationship with adoption of social media marketing. According to Dahnil *et al.* (2014), management of the companies will influence the adoption of social media marketing. Studies have found that government influences will affect the adoption of social media marketing (Dahnil *et al.*, 2014; Hanafizadeh *et al.*, 2012). According to Vuori (2011), social media marketing allows for an improved distribution of competitive intelligence within a company. Social media marketing also was seen as possibly making a contribution to facilitating the competitive intelligence. All the past studies stated above had shown that technological support, organisational support, government support and competitive intelligence significantly influence the adoption of social media marketing. Therefore, the following hypotheses was outlined:

Hypothesis 5: Social media marketing adoption mediates the relationship between technological support and SMEs performance.

Hypothesis 6: Social media marketing adoption mediates the relationship between organisational support and SMEs performance.

Hypothesis 7: Social media marketing adoption mediates the relationship between government support and SMEs performance.

Hypothesis 8: Social media marketing adoption mediates the relationship between competitive intelligence and SMEs performance.



Figure 1: Research Framework

3. METHODOLOGY

The three states of Kelantan, Terangganu, and Pahang on Peninsular Malaysia's East Coast served as the study's locations. These states were picked as the study location is the homogeneity of the three states in terms of geographical area and economic performance. The planned development of this regional corridor development was for the purpose of narrowing the socio-economic disparity between this region and other regions in the country (Krimi, Yusop, & Hook, 2010). The target population, which included SMEs' owners randomly chosen based on the list from SME Corp Malaysia, completed the survey questionnaire to gather the data. Only 339 of the 1920 questionnaires that were delivered were valid enough to be used in the analysis. The survey was modified based on Ainin et. al. (2015), Chong and Chan (2012), Kapurubandara (2009) and Maurya et. al. (2015). The questionnaire used a 5-point Likert scale that ranged from strongly disagree to strongly agree. The structural model partial least square was used in all statistical operations.

(SEM-PLS). The major data collection's results underwent testing for construct validity, discriminant validity, normality, multicollinearity, and testing of hypotheses.

RESULT AND DISCUSSION 4

Demographic Profile

A total of 1920 survey questionnaires were mailed to the respective respondents. The respondents' addresses, e-mails and telephone numbers were obtained from SME Corp Malaysia's online database. Finally, after the follow up procedure was carried out, the total numbers of responses received were 405. However, 66 responses were excluded due to incompleteness and filling by ineligible respondents. Therefore, only 339 responses were valid for further analysis, making the responses rate at 21.1 percent. For the type of industry category, 46.6 percent of the total number of respondents were service, 42.5 percent were manufacturing and 10.9 percent were others. In terms of location of business category, 39.8 percent from the total respondents were from Kelantan, 38.3 percent were from Terengganu and 21.8 percent were from Pahang. For types of company ownership category, majority of the respondents were sole proprietor which indicates the percentage of 75.2 percent, 17.7 percent were partnership and 7.1 percent were limited company. When respondents were asked about their age of business, 38.3 percent reported 4-8 years, followed by 28.3 percent were 9-15 years, while 24.5 percent were less than 3 years. Only 5.0 percent were 16-20 years while 3.8 percent are above 20 years. In terms of number of full-time employees, 49.3 percent from the respondents has less than 5 employees and 44.0 percent has 5 to 50 employees. 6.2 percent of the respondents has 51 to 150 employees while only 0.6 percent has 150 to 200 employees.

Normality Test

To determine whether data significantly deviate from a normal distribution, normality tests are performed. The values of skewness and kurtosis were used to obtain the result. The normality test values are shown in Table 1.

Table 1. Normanty Test							
Constructs	Skewness	Kurtosis					
Technological Support	907	1.711					
Organisational Support	.077	.113					
Government Support	767	.924					
Competitive Intelligence	681	1.038					
Social Media Marketing Adoption	576	.498					
SME Performance	810	1.220					

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Based on the table, the results of the normality test, when all values are assumed to be normally distributed, range from -0.907 to 0.077 for skewness and 0.113 to 1.711 for kurtosis. The acceptable values for skewness and kurtosis, according to George and Mallery (2016), range from -3 to +3. This indicates that all of the study's variables are typical. As a result, the researcher can carry out additional research.

Multicollinearity Analysis

Multicollinearity occurs when there are high correlations among variables. Another way to find multicollinearity is to examine the variance inflated factor (VIF) and tolerance value. If there is a problem of multicollinearity, VIF exceeds 10 and tolerance value that is lower than .10 (Hair *et al.*, 2010). From Table 2, it shows that the value of tolerance is greater than 0.6 and VIF score is less than 10, thus it can be concluded that multicollinearity does not exist.

	Unstand	dardized	Standardized					
	Coeff	icients	Coefficients		t	Sig.	Collinearity S	tatistics
Model 1	В	Std. Error	Beta		t	Sig.	Tolerance	VIF
(Constant)	0.384	0.195			1.970	0.050		
TF	0.241	0.050	0.	225	4.780	0.000	0.655	1.526
OF	0.126	0.049	0.	119	2.600	0.010	0.695	1.439
GS	0.202	0.047	0.	208	4.286	0.000	0.617	1.620
CI	0.374	0.051	0.	358	7.337	0.000	0.610	1.640

 Table 2: Correlation Coefficient

a. Dependent Variable: SME Performance

Note: ** Correlation is significant at the level 0.01 level (2 tailed).

Assessment of Measurement Model

To verify the measurement model, it is necessary to evaluate convergent validity, which comprises factor loading, average variance extracted (AVE), and composite reliability (CR). Hair, Ringle and Sarstedt (2011) states that the factor loading value must be greater than 0.5 and that the AVE and CR values must be greater than the suggested values of must be greater than 0.5 and 0.7, respectively. The findings demonstrated that the factor loading, AVE, and CR values were higher than those suggested for this measurement methodology.

Table 3: Measurement Model Result

Construct	Items	Loadings	CR	AVE	CA
Technological	SA1	0.798	0.954	0.699	0.946
Support	SA2	0.825			
	SA3	0.846			
	SA4	0.857			
	SA5	0.855			
	SA6	0.859			
	SA7	0.867			
	SA8	0.863			
	SA9	0.744			
Organisational	SB1	0.791	0.929	0.685	0.909
Support	SB2	0.821			
	SB3	0.824			

SB40.856SB50.846SB60.826GovernmentSC10.8510.9440.7710.926SupportSC20.896111SC30.8940.9710.9260.9061CompetitiveSD10.8670.9540.8060.944IntelligenceSD20.9070.9070.9070.907Social MediaSE10.9070.9030.937Social MediaSE10.9130.9030.937SAEASE30.9130.9050.8080.935SME PerformanceSF10.9040.9620.8080.953SME PerformanceSF30.9060.9070.9050.905SF30.9060.9060.9060.9050.905SF40.9060.9060.9060.9050.905SF50.9070.9070.9050.9050.905SF40.9070.9070.9050.9050.905SF50.9070.9050.9050.9050.905SF60.9070.9050.9050.9050.905SF60.9070.9050.9050.9050.905SF60.9070.9050.9050.9050.905SF60.9070.9050.9050.9050.905SF60.9050.9050.9050.9050.905SF60.9050.9050.9050.9050.905SF6 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
SB50.846SG00.826		SB4	0.856			
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GovernmentSC10.8510.9440.7710.926SupportSC20.896		SB6	0.826			
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SC30.894SC40.841SC50.906SD10.8670.954IntelligenceSD2SD30.886SD40.907SD50.922Social MediaSE1SE30.913SE30.879SE40.884SE50.884SF10.904SF20.806SF30.907SME PerformanceSF1SF30.906SF30.907SF40.906SF30.907SF40.893SF40.803	Support	SC2	0.896			
SC40.841SC50.906CompetitiveSD10.8670.9540.8060.940IntelligenceSD20.9075030.88611SD40.9075050.9220.8000.937Social MediaSE10.9130.9520.8000.937MarketingSE30.8795540.8849SME PerformanceSF10.9040.9620.8080.953SME PerformanceSF30.8060.9620.8080.953SF30.9065530.89311SF40.8930.962111SF40.8930.962111SF40.9071111SF60.8881111		SC3	0.894			
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SD30.886SD40.907SD50.922Social MediaSE1SE10.911SE20.913SE30.879SE40.848SE50.884SF10.904SF20.806SF30.906SF30.906SF30.907SF50.888	Intelligence	SD2	0.907			
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SD5 0.922 Social Media SE1 0.911 0.952 0.800 0.937 Marketing SE2 0.913 SE3 0.879 SE4 0.848		SD4	0.907			
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SE3 0.879 SE4 0.848 SE5 0.884 SME Performance SF1 0.904 0.962 0.808 0.953 SF2 0.896 5F3 0.906 141 141 141 SF4 0.893 0.907 141 141 141 141 SF6 0.888 0.888 0.888 141 141 141	Marketing	SE2	0.913			
SE4 0.848 SE5 0.884 SME Performance SF1 0.904 0.962 0.808 0.953 SF2 0.896 SF3 0.906 Image: Comparison of the second s		SE3	0.879			
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SF2 0.896 SF3 0.906 SF4 0.893 SF5 0.907 SF6 0.888	SME Performance	SF1	0.904	0.962	0.808	0.953
SF3 0.906 SF4 0.893 SF5 0.907 SF6 0.888		SF2	0.896			
SF4 0.893 SF5 0.907 SF6 0.888		SF3	0.906			
SF5 0.907 SF6 0.888		SF4	0.893			
SF6 0.888		SF5	0.907			
		SF6	0.888			

Discriminant Validity

To generate cross validated communality and cross validated redundancy, the R2 value and effect sizes can be used to evaluate the quality of the structural model by employing blindfolding procedure. Hair *et al.* (2011) state that endogenous latent variables with R2 values of 0.75, 0.50 or 0.25 for can be described as substantial, moderate, or weak, respectively. As shown in Figure 1, the R2 was 0.417, which suggests that technological support, organisational support, government support and competitive intelligence can account for 41.7 percent of the variance in social media marketing adoption, which represent a moderate range. Then, the R2 of SME performance was 0.562, indicating that technological support, organisational support, government support, competitive intelligence and social media marketing adoption can account for 56.2 percent of the variance in performance.

	Table 4: Heterotrait-Monotrait (HTMT)							
	CI	GS	OF	SMEP	SMM			
GS	0.504							
OF	0.459	0.557						
SMEP	0.665	0.574	0.479					
SMM	0.625	0.491	0.471	0.667				
TF	0.576	0.485	0.326	0.580	0.466			

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Notes. Diagonals represent the square root of the AVE while the off-diagonals represent correlations. CI=Competitive Intelligence, GS=Government Support, OS=Organisational Support, SMEP=SME Performance

Heterotrait-Monotrait (HTMT) ratio was used to assess the discriminant validity. The model used in this investigation met Kline's (2011) suggested threshold value of 0.85, which is required for discriminant validity.

Predictive Relevance



Figure 2: Path Analysis

Another measure for the evaluation of the structural model is the predictive relevance Q2, which demonstrates how well observed values are rebuilt by the model and its parameter estimates (Chin, 2010; Hair et al., 2011). Hair et al. (2011) assert that the model is considered to have predictive quality if the cross-redundancy value is higher than zero; and if that is not the case, the predictive relevance of the model cannot be achieved.

Table 5: Predictive Relevance of the Model						
SSO SSE Q ² (=1-SSE/SSO)						
SME Performance	2,034.000	1,167.289	0.426			
Social Media Marketing Adoption	1,695.000	1,172.529	0.308			

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In Table 5, the obtained cross validated redundancy values for SME performance and social media marketing adoption were found to be 0.426 and 0.308, respectively. Thus, this supports the proposition that the model has sufficient prediction quality.

Hypothesis Testing

The results in Table 6 satisfy the first four hypotheses that address the relationship between technological support, organisational support, government support and competitive intelligence with SME performance.

Hypothesis	Exogenous	Endogenous	Path	1	Result	
	variables	variables	coefficients	p-values		
H1	TF	SME Performance	0.192	0.001*	Significant	
H2	OF	SME Performance	0.077	0.107*	Not Significant	
Н3	GS	SME Performance	0.164	0.004*	Significant	
H4	CI	SME Performance	0.241	0.001*	Significant	

Table 6: Direct Relationship Model

*Significant at p<0.05. TF=Technological support, OF=Organisational support, GS=Government support, CI=Competitive intelligence

						I		-	
Hypoth esis	IV	Mediation	DV	beta	t value	p-values	LL	UL	Result
H5	TF	SMM	SMEP	0.035	2.107	0.036*	0.010	0.062	Supported
H6	OF	SMM	SMEP	0.051	2.695	0.007*	0.026	0.090	Supported
H7	GS	SMM	SMEP	0.040	2.163	0.031*	0.016	0.076	Supported
H8	CI	SMM	SMEP	0.114	4.197	0.001*	0.077	0.167	Supported

Table 7: Indirect Relationship Model

*Significant at p<0.05. IV=Independent Variable, DV=Dependent Variable, TF=Technological support, GS=Government support, CI=Competitive intelligence, SMM=Social Media Marketing Adoption, SMEP=SME Performance

The next four hypotheses were analyzed. H5 is supported where SME performance is significantly influenced by technological support and mediated by social media marketing, according to the analysis (t-value = 2.107; p-value = 0.036). In addition, the performance of SMEs was shown to be significant with organisational support and mediated by social media marketing (t-value = 2.695, p-value = 0.007). H6 is therefore supported. Next, the study discovered that government support is significant with SMEs' performance and mediated by social media marketing (t-value=2.163, p-value=0.031), supporting H7. And lastly, social media marketing is significantly mediate the relationship between competitive intelligence and SME performance (t-value = 4.197; p-value = 0.001), supporting H8. The bootstrapping method's values for technological support (LL = 0.016, UL = 0.076) and competitive intelligence (LL = 0.077, UL = 0.167) significantly bolstered the findings of H5 until H8.

5. CONCLUSION AND RECOMMENDATION

A thorough discussion on the hypotheses test results focuses on the direct relationship hypotheses and the mediating effect of the relationship. The study found that the direct hypotheses were supported, and that technological support, government support and competitive intelligence have significant influence on SME performance. Thus, the results uphold the RBV theory, based on Child (1974), Bontis, Chua Chong Keow, and Richardson (2000) and Bontis, Wu, Chen, Cheng, and Hwang (2005) who put forward the existence of a significant positive relationship between tangible and intangible assets and business performance, irrespective of which sector the industry is in. The results also support the TOE framework, based on Tornatzky *et al.* (1990) and Li and Lin (2015) who indicated that the performance of the companies influenced by the resources such as technology, organisation and environment. However, organisational support has been found to be not significant influence on SME performance. This finding contradicts with previous studies. According to Bontis *et al.* (2000), organisations try to manage knowledge and expand their operational resources which result in relatively better business performance.

This study also indicates that social media marketing adoption mediates the relationship between technological support, organisational support, government support, competitive intelligence, and SME performance. The findings of this study confirmed the DOI theory proposed by Rogers Everett (1995) that innovation can affect the business performance, regardless of the businesses area. These findings are in line with previous study by Trainor (2012) who claim that social media marketing can lead to superior performance. Zhou, Wu, and Luo (2007) and Djulius, et. al., (2022) also found in their study that business performance is significantly influenced by knowledge, learning and trust through social media marketing.

By investigating the relationship between technological advancements, organizational support, government interventions, competitive intelligence, and their combined influence on SME performance, the study offers valuable insights that contribute to the TOE framework.

Firstly, the paper extends the understanding of the TOE framework by examining the specific context of SMEs in Malaysia's East Coast. By applying the TOE framework to this unique setting, the research contextualizes and validates the framework's applicability in a region with distinct characteristics and challenges. Given technology's positive influence, SMEs should prioritize technology adoption and provide training for employees. Capacity-building workshops, akin to Google's "Grow with Google" initiative, can empower SMEs to utilize technology effectively for marketing and operations, bolstering overall performance. The study also underscores the positive impact of government support on SME performance. Policymakers can capitalize on this insight by devising targeted programs that offer financial incentives, capacity building, and regulatory simplification. For instance, the government could establish technology adoption grants, mirroring Singapore's "Productivity Solutions Grant," which aids SMEs in adopting technological tools to enhance operations and expand market reach. In addition, although organizational support's direct impact on SME performance varies based on size, its indirect influence through SMM is notable. SMEs should cultivate an internal culture that encourages innovation and embraces technology. Larger SMEs can establish dedicated innovation departments, while smaller ones can encourage cross-functional collaboration.

An electronics manufacturer could establish internal hackathons to encourage innovative product ideas.

Secondly, the study augments the Competitive Intelligence literature by delving into how competitive intelligence practices influence SMEs' performance outcomes. It offers empirical evidence of the significance of competitive intelligence as a determinant of SME performance, shedding light on its often-underestimated role in enhancing competitiveness. Recognizing the influential role of competitive intelligence, SMEs can adopt systematic approaches to gather market insights, competitor analysis, and customer preferences. Firms can establish dedicated intelligence units or engage third-party services. For instance, a local bakery could analyze competitors' pricing strategies and product offerings to fine-tune their own offerings and gain a competitive edge.

Most notably, the paper's exploration of the mediating effect of Social Media Marketing (SMM) in the relationship between technological advancements, organizational support, government interventions, competitive intelligence, and SME performance adds a novel dimension to both the TOE framework and Competitive Intelligence literature. This mediation analysis demonstrates how SMM serves as a conduit through which these factors influence SME performance, highlighting the evolving role of digital platforms in business growth. To leverage this, businesses should invest in robust SMM strategies, harnessing platforms like Facebook, Instagram, and LinkedIn. For example, a fashion boutique could showcase new arrivals, engage with customers through interactive posts, and run targeted ad campaigns to expand their customer base and increase sales.

Ultimately, this research not only contributes to the theoretical foundations of the TOE framework and Competitive Intelligence but also offers practical insights for SME owners, policymakers, and practitioners. By identifying the interconnected dynamics between technological support, organizational support, government interventions, competitive intelligence, SMM, and SME performance, the paper equips stakeholders with valuable knowledge to make informed decisions and optimize strategies in an increasingly complex business landscape.

REFERENCES

- Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Mohd Shuib, N. L. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. Industrial Management & Data Systems, 115(3), 570-588.
- [2] Ali Abbasi, G., Abdul Rahim, N. F., Wu, H., Iranmanesh, M., & Keong, B. N. C. (2022). Determinants of SME's social media marketing adoption: competitive industry as a moderator. Sage Open, 12(1), 21582440211067220.
- [3] Al Mamun, A., Che Nawi, N. B., Nasir, N. A. B. M., & Fazal, S. A. (2020). Social media and consumer engagement: the case of Malaysian student entrepreneurs. Journal of Asia-Pacific Business, 21(3), 185-206.
- [4] Al-Qirim, N. (2006). The role of the government and E-Commerce adoption in small businesses in New Zealand. International Journal of Internet and Enterprise Management, 4(4), 293-313.
- [5] Al-Qirim, N. (2008). The adoption of eCommerce communications and applications technologies in small businesses in New Zealand. Electronic Commerce Research and Applications, 6(4), 462-473.

- [6] Baffour Awuah, G., & Amal, M. (2011). Impact of globalization: The ability of less developed countries'(LDCs') firms to cope with opportunities and challenges. European Business Review, 23(1), 120-132.
- [7] Bontis, N., Chua Chong Keow, W., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. Journal of intellectual capital, 1(1), 85-100.
- [8] Bontis, N., Wu, S., Chen, M.-C., Cheng, S.-J., & Hwang, Y. (2005). An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. Journal of intellectual capital, 6(2), 159-176.
- [9] Bose, R. (2008). Competitive intelligence process and tools for intelligence analysis. Industrial Management & Data Systems, 108(4), 510-528.
- [10] Chienwittayakun, J., & Mankin, D. (2015). Strategic Management Planning Process (SMPP) as an Organization Development Intervention (ODI) to Align Values, Goals and Objectives and Improve Employee Teamwork, Engagement and Performance: A Case Study of a Family-Owned Business in Thailand. ABAC ODI Journal Vision. Action. Outcome., 2(1).
- [11] Child, J. (1974). Managerial and organizational factors associated with company performance part I. Journal of Management studies, 11(3), 175-189.
- [12] Chin, W. W. (2010). How to write up and report PLS analyses Handbook of partial least squares (pp. 655-690): Springer.
- [13] Chong, A. Y.-L., & Chan, F. T. (2012). Structural equation modeling for multi-stage analysis on radio frequency identification (RFID) diffusion in the health care industry. Expert Systems with Applications, 39(10), 8645-8654.
- [14] Dahnil, M. I., Marzuki, K. M., Langgat, J., & Fabeil, N. F. (2014). Factors influencing SMEs adoption of social media marketing. Procedia-Social and Behavioral Sciences, 148, 119-126.
- [15] Department of Statistics, M. (2017). SME Annual Report. Retrieved from http://www.smecorp.gov.my/images/Publication/Annual-report/SME%20AR%20201 5-16%20English%20Final%20web.pdf: <u>http://www.smecorp.gov.my/images/Publication/Annual-report/SME%20AR%20201</u> 5-16%20English%20Final%20web.pdf
- [16] Dholakia, R. R. (1995). TLC Adoption Among Small Businesses in the United States. Retrieved from
- [17] Dholakia, R. R., Johnson, J. L., Della Bitta, A. J., & Dholakia, N. (1993). Decision-making time in organizational buying behavior: an investigation of its antecedents. Journal of the Academy of Marketing Science, 21(4), 281-292.
- [18] Dholakia, R. R., & Kshetri, N. (2004). Factors impacting the adoption of the Internet among SMEs. Small Business Economics, 23(4), 311-322.
- [19] Djulius, H., Lixian, X., Lestari, A. N., & Eryanto, S. F. (2022). The Impact of a Poor Family Assistance Program on Human Development in Indonesia. Review of Integrative Business and Economics Research, 11(4), 59-70.
- [20] El-Gohary, H. (2012). Factors affecting E-Marketing adoption and implementation in tourism firms: An empirical investigation of Egyptian small tourism organisations. Tourism Management, 33(5), 1256-1269.
- [21] Fan, W., & Gordon, M. D. (2014). The power of social media analytics. Communications of the ACM, 57(6), 74-81.
- [22] Felix, R., Rauschnabel, P. A., & Hinsch, C. (2017). Elements of strategic social media marketing: A holistic framework. Journal of Business Research, 70, 118-126.
- [23] García-Moreno, M. B., García-Moreno, S., Nájera-Sánchez, J. J., & De

Pablos-Heredero, C. (2016). An explanatory model of the organizational factors that explain the adoption of E-business. Journal of Industrial Engineering and Management, 9(2), 547.

- [24] George, D., & Mallery, P. (2016). IBM SPSS Statistics 23 step by step: A simple guide and reference: Routledge.
- [25] Groom, J. R., & David, F. R. (2001). Competitive intelligence activity among small firms. SAM Advanced Management Journal, 66(1), 12.
- [26] Gutierrez, A., Boukrami, E., & Lumsden, R. (2015). Technological, Organisational and Environmental factors influencing managers' decision to adopt cloud computing in the UK. Journal of Enterprise Information Management, 28(6), 788-807.
- [27] Hair, J. F., Anderson, Rolph, Babin, & Black. (2010). Multivariate data analysis: A global perspective (Vol. 7): Pearson Upper Saddle River, NJ.
- [28] Hair, J. F., Ringle, & Sarstedt. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing theory and Practice, 19(2), 139-152.
- [29] Hanafizadeh, P., Behboudi, M., Ahadi, F., & Ghaderi Varkani, F. (2012). Internet advertising adoption: a structural equation model for Iranian SMEs. Internet Research, 22(4), 499-526.
- [30] Hassan, S., Nadzim, S. Z. A., & Shiratuddin, N. (2015). Strategic use of social media for small business based on the AIDA model. Procedia-Social and Behavioral Sciences, 172, 262-269.
- [31] Hawking, P., & Sellitto, C. (2015). Business intelligence strategy: a utilities company case study. Business Intelligence: Concepts, Methodologies, Tools, and Applications: Concepts, Methodologies, Tools, and Applications, 305.
- [32] He, W., Zha, S., & Li, L. (2013). Social media competitive analysis and text mining: A case study in the pizza industry. International Journal of Information Management, 33(3), 464-472.
- [33] Ho, L.-A. (2011). Meditation, learning, organizational innovation and performance. Industrial Management & Data Systems, 111(1), 113-131.
- [34] Iacovou, C. L., Benbasat, I., & Dexter, A. S. (1995). Electronic data interchange and small organizations: adoption and impact of technology. MIS quarterly, 465-485.
- [35] Kapurubandara, M., & Lawson, R. (2009). E-commerce adoption and appropriation by SMEs in Sri Lanka. Emerging Markets and E-Commerce in Developing Economies, IGI Global, 105-107.
- [36] Karimi, S., & Naghibi, H. S. (2015). Social Media Marketing (Smm) Strategies for Small to Medium Enterprises (SMEs). International Journal of Information, Business and Management, 7(4), 86.
- [37] Khan, M. W. J., & Khalique, M. (2014). An Overview of Small and Medium Enterprises in Malaysia and Pakistan: Past, Present and Future Scenario. Business and Management Horizons, 2(2), 38.
- [38] Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling: na.
- [39] Krimi, M. S., Yusop, Z., & Hook, L. S. (2010). Regional development disparities in Malaysia. Journal of American Science, 6(3), 70-78.
- [40] Li, C.-R., & Lin, C.-J. (2015). New product adoption and sales performance from the importer perspective. Industrial Marketing Management, 44, 98-106.
- [41] Malaysia, S. C. (2016). Profile and Importance to the Economy. Retrieved from <u>http://www.smecorp.gov.my/index.php/en/policies/2015-12-21-09-09-49/profile-and-importance-to-the-economy</u>
- [42] Maurya, U. K., Mishra, P., Anand, S., & Kumar, N. (2015). Corporate identity,

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customer orientation and performance of SMEs: Exploring the linkages. IIMB Management Review, 27(3), 159-174.

- [43] Mohanty, E., & Mishra, A. J. (2020). Understanding the gendered nature of developing country MSMEs' access, adoption and use of information and communication technologies for development (ICT4D). International Journal of Gender and Entrepreneurship, 12(3), 273-295.
- [44] Naudé, P., Zaefarian, G., Tavani, Z. N., Neghabi, S., & Zaefarian, R. (2014). The influence of network effects on SME performance. Industrial Marketing Management, 43(4), 630-641.
- [45] Parveen, F., Parveen, F., Jaafar, N. I., Jaafar, N. I., Ainin, S., & Ainin, S. (2016). Social media's impact on organizational performance and entrepreneurial orientation in organizations. Management Decision, 54(9), 2208-2234.
- [46] Purcell, F., & Toland, J. (2004). Electronic commerce for the South Pacific: A review of e-readiness. Electronic Commerce Research, 4(3), 241-262.
- [47] Rogers Everett, M. (1995). Diffusion of innovations. New York, 12.
- [48] Samat, M. F., Anual, N., Hussin, S. N. A., & Rahim, H. L. (2023). Factors Influencing Entrepreneurial Propensity Among Urban Poor Family in Malaysia. Review of Integrative Business and Economics Research, 12(1), 230-246.
- [49] Sandberg, K. W., Vinberg, S., & Pan, Y. (2002). 45 Integrating working and. Engineering Psychology and Cognitive Ergonomics: Industrial economics, HCI, and applied cognitive psychology, 6, 357.
- [50] Soto-Acosta, P., Popa, S., & Palacios-Marqués, D. (2016). E-business, organizational innovation and firm performance in manufacturing SMEs: an empirical study in Spain. Technological and Economic Development of Economy, 22(6), 885-904.
- [51] Tajvidi, R., & Karami, A. (2021). The effect of social media on firm performance. Computers in Human Behavior, 115, 105174.
- [52] Tornatzky, L. G., Fleischer, M., & Chakrabarti, A. K. (1990). Processes of technological innovation: Lexington Books.
- [53] Trainor, K. J. (2012). Relating social media technologies to performance: A capabilities-based perspective. Journal of Personal Selling & Sales Management, 32(3), 317-331.
- [54] van Gijsel, P. (2012). The importance of non-financial performance measures during the economic crisis.
- [55] Vuori, V. (2011). Social media changing the competitive intelligence process: Elicitation of employees' competitive knowledge. Tampereen teknillinen yliopisto. Julkaisu-Tampere University of Technology. Publication; 1001.
- [56] World Bank, E. P. U. a. D. o. S., Prime Minister's Department, Malaysia. (2007). Malaysia - Productivity of the Investment Climate Private Enterprise Survey 2007.
- [57] Zhou, L., Wu, W.-p., & Luo, X. (2007). Internationalization and the performance of born-global SMEs: the mediating role of social networks. Journal of international business studies, 38(4), 673-690.