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Social Commerce Adoption Using Technology and Trust Factors: An Empirical Investigation of SMEs

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Abstract
Social commerce has become an important platform for business owners and managers as it assists organisations to connect with customers and gain competitive advantages. Nevertheless, there are not many empirical studies that have focused on small-and medium-sized enterprises (SMEs) in developing nations. Hence, this study aims to investigate the effects of technological and trust factors on the adoption of social commerce by SMEs in Malaysia. This study tested the model and related hypotheses by using structural equation modelling. The results obtained from a survey conducted on 232 SMEs in Malaysia revealed that technological factors (Perceived Usefulness, Service Quality Compatibility), followed by trust factors (Reliability, Social Influence, Attitude), have the most significant effect on behavioural intention to use social commerce. The conclusion and contribution of this study as well as limitations and future research directions, are also presented.
Keywords. *E-Commerce*, Social commerce, *SMEs, Malaysia.*

Introduction

Electronic commerce (E-commerce) is growing at a rapid rate across the globe in many nations, including developing countries such as Arab and Asian countries. The increasing popularity of social networking sites and social media has given rise to a new stream of electronic commerce, known as social commerce. Social commerce is a new stream and subset of e-commerce [9]. Social commerce combines e-commerce activities with social media and allows consumers to interact, communicate, and participate in online selling and buying of products and services. Malaysian Small and Medium-sized Enterprises (SMEs) are the largest business establishments and a vital component of Malaysia's economic development. Small and medium enterprises (SMEs) play a crucial role in the Malaysian economy and are considered to be the backbone of industrial development in the nation [11]. SMEs in Malaysia are estimated to contribute 41% of the country's GDP by 2020, compared to 32% in 2012, and the local SMEs are currently suppliers for multi-national companies (MNCs) worldwide. Many entrepreneurs have increased the ability of their companies with the exposure and skills obtained to penetrate the export market (Business News). The SMEs in Malaysia are categorized into agriculture, manufacturing, construction, service, mining, and quarrying.

Materials and Method

Not many studies have reviewed social commerce adoption by SMEs. [1, 3] have analysed the studies conducted by SME Corp Malaysia and noted that the usage of social media and e-commerce is still low in Malaysia. The researchers have identified the most utilised variables in studies about entrepreneurs and their intention to accept new technology. Their study revealed that attitude and self-efficacy are the most utilised constructs to identify the internal factors of entrepreneurs that influence the acceptance and use of social commerce among SMEs in Malaysia. Furthermore, [2] have analysed 60 SMEs according to four main categories namely (a) social media tools, technology and platforms utilised by SMEs (b) online business strategies utilised by SMEs (c) online information provided and shared by SMEs and (d) consumers' social media tools and platforms usage to connect with SMEs. Their findings indicated that the quality of online information influences consumers' adoption, social media is utilised by businesses to develop online trust, online business strategies influence consumers' perceptions of uncertainty, and innovative businesses lead to innovative consumers. Moreover, [14] have studied the factors that influence the success of social commerce systems in the context of SMEs in Thailand. A survey questionnaire was utilised to evaluate the proposed model. Their findings revealed six hypotheses that supported the proposed model. The success of a social commerce system is significantly influenced by system usage and user satisfaction. In addition, three factors positively influence the system usage,

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namely service quality, system quality, and trust, which all lead to user satisfaction. [15] have analysed the literature on social commerce, social media, and the diffusion of innovation to identify the organisational, environmental, and managerial characteristics of SMEs which play a vital role in the adoption of Twitter. Testing of the model was done using data collected through a survey participated in by 453 managers of SMEs from Australia, the United Kingdom, the United States, and India. The results showed that firm innovativeness, age, and geographic location have a significant influence on Twitter adoption by SMEs.

The current study started with a comprehensive review of the literature and a detailed list of variables, such as technology factors (Perceived Usefulness, Service Quality, Compatibility Information Quality) and trust factors (Reliability, Social Influence, Attitude, Security) affect behavioural intention to use social commerce, which are vital factors in the adoption and usage of social commerce. Based on the literature review, this study examined the influential variables in the adoption of social commerce (SC) by companies from various aspects [4].

The Research Model

Following a thorough assessment of variables examined earlier, a conceptual model was created (Figure 1), which facilitated the research direction. The model comprised two aspects of the factors: 1, Technological factors, and 2, trust factors.

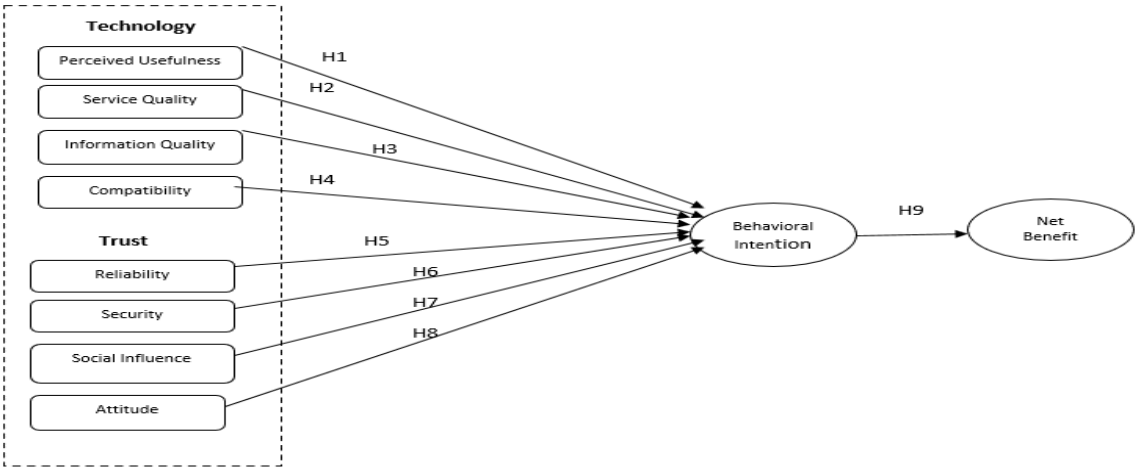

Figure **1.** *model adoption of social commerce (technology and trust)*

Methodology

The survey questionnaires were distributed to SMEs' managers and owners in Malaysia. A total of 232 respondents have completed the survey. The data obtained were analysed using SEM through smart PLS 2 software. This research adopted a quantitative research approach based on a survey technique. The target population is made up of 232 companies based in Malaysia and registered within CESMED UKM, with all of them situated in Selangor. The unit of analysis would be the owner-managers of the aforementioned enterprises. The research utilized a simple random probability sampling method to represent the actual population. As expected, a large sample size of 200 or larger is required by SEM [8].

Results and discussion

Measurement model

The measurement model involves relationships among the latent variables and their indicators. It is crucial to first determine construct validity for the measurement model before evaluating the structural model for hypothesis testing. Construct validity is related to the extent to which the indicators reflect their underlying constructs (latent variables). Items in the measurement model need to demonstrate sufficient convergent and discriminant validity as a prerequisite for determining construct validity. As suggested by [6], composite reliability, factor loadings, and average variance extracted (AVE) were utilised to assess convergent validity. (Table 1) displays the indicator loadings/weights, reliabilities, and AVE for all the items listed in the model.

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(Table 1) showed that the Composite Reliability (CR) values ranged from 0.911 to. 0.978, while Cronbach's alpha values ranged from 0.870 to 0.972. AVE values were above (>0.5). All the values were at the recommended threshold value of 0.70. Furthermore, when the Composite Reliability (CR) values were compared with the Cronbach's alpha values, it was evident that CR was definitely a stronger measuring criterion for evaluating the internal consistency reliability. The results of Cronbach's alpha and Composite Reliability (CR) indicate that the investigated constructs of the current study have high levels of internal consistency reliability. The fit indices for the final measurement model were displayed in (Table 2). The revised measurement model fits within the acceptable standards [5];[12].

Table* 1. *Results of Measurements Model–Convergent Validity

Model–Convergent Validity	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Attitude (AT)	0.899	0.902	0.930	0.768
Compatibility (CM)	0.967	0.971	0.974	0.883
Information *Quality* (IQ)	0.971	0.972	0.976	0.874
Perceived Usefulness (PU)	0.972	0.973	0.978	0.899
Reliability (R)	0.963	0.966	0.973	0.901
Security (S)	0.964	0.967	0.972	0.875
Service Quality (SQ)	0.870	0.870	0.911	0.720
Social Influence (SI)	0.917	0.918	0.942	0.801
behaviour intention	0.906	0.917	0.933	0.777
net benefit	0.915	0.931	0.937	0.750

Factor Loadings (>0.7); Composite reliability (CR >0.7); Average variance extracted AVE (>0.5)

Structural model and hypothesis testing

The measurement model is changed into a structural model to test the relationships between the hypothesised constructs [7]. The results obtained present an acceptable level of fit. Based on the results obtained, the R2 value for the construct of Net Benefit is 82% as predicted by the Behaviour Intention. Meanwhile, the R2 value for the Behaviour Intention itself is 94.4 % predicted by technology factors and trust factors. Lastly, the results revealed that the R2 values for Behaviour Intention and Net Benefit are high. As proposed by [13]. The other goodness-of-fit indices results are within the accepted measures (Table 3). The hypotheses are examined by analysing the path estimates by a critical t-value [7]. Hypothesis testing results revealed that seven hypotheses were supported by the data, and two hypotheses were not supported. (Table 2) displays the hypothesis testing results. The squared multiple correlations (R2) measure statistically how well a regression line estimates the real data points between zero and one, which indicates how good one construct is at predicting another [7]. Theoretically, the closer the R2 value is to one, the better the ability of the model to predict that technology [8],[10]. The proposed model is capable of explaining 46 % of the variance of behavioural intention, as displayed in (Figure 2).

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Table **2.** *Results of the Hypotheses Testing*

Hypotheses	Relationships	Standard β	T Statistics	P Values	Result
HI	PU -> behaviour intention	0.071	2.538	0.011	Supported
H2	SCSQ -> behaviour intention	0.172	3.919	0.000	Supported
H3	CM -> behaviour intention	-0.051	0.295	0.022	Supported
H4	IQ -> behaviour intention	-0.006	2.229	0.819	Not Supported
H5	S -> behaviour intention	0.003	0.127	0.899	Not Supported
H6	R-> behaviour intention	0.287	7.933	0.000	Supported
H7	SI -> behaviour intention	0. 454	6.287	0.000	Supported
H8	AT -> behaviour intention	0.119	3.696	0.000	Supported
H9	behaviour intention -> net benefit	0.906	86.364	0.000	Supported

Table **3.** *The R-squared values*

Construct	R^2	Power
BI	0.944	High
NB	0.821	High
Average	0. 882	

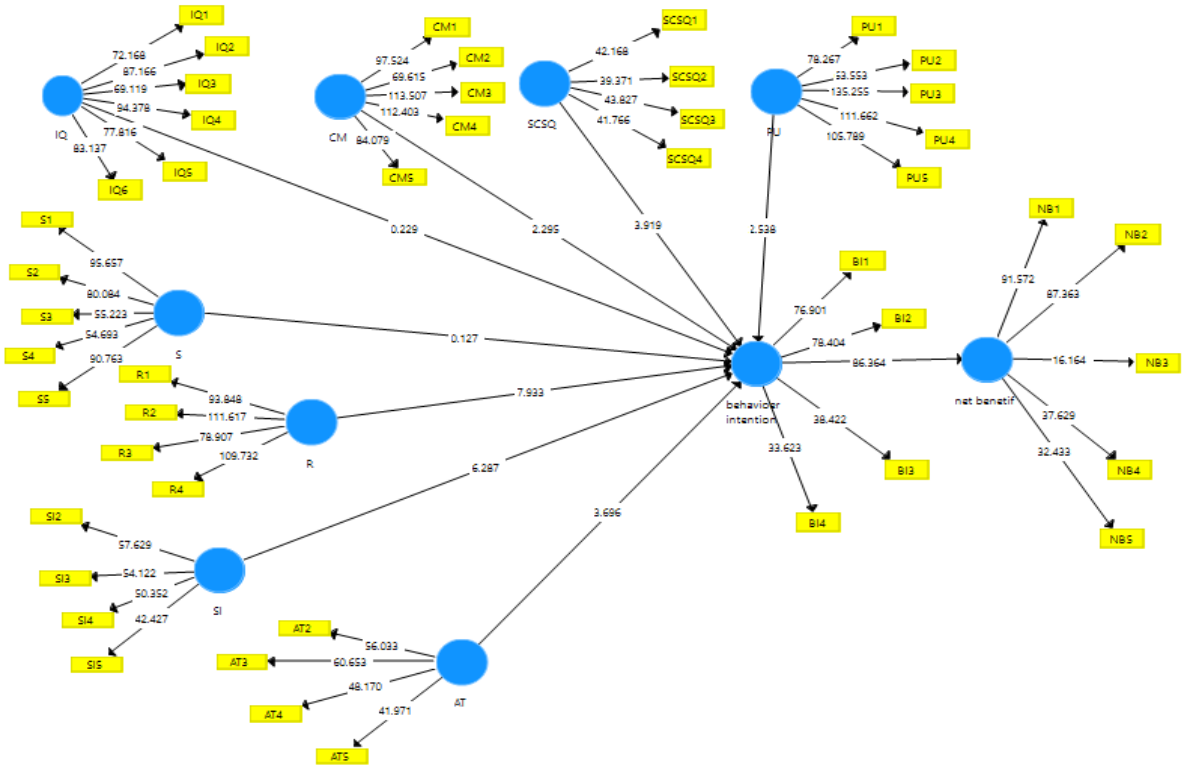

Figure **2.** *Structural model*

Conclusion

The current study aims to identify factors that are the effects of technological and trust factors on social commerce adoption among SMEs in Malaysia. In the current study, a quantitative field survey was carried out using a questionnaire that was distributed to obtain data from a convenience sample. Data analysis and results, including the details of the SMEs' respondents in the survey sample, reliability assessment, measurement model, and validity assessment, were presented. After that, hypothesis testing was carried out. The results obtained from a survey conducted among 232 SMEs showed that all seven hypotheses examined were significant, particularly Perceived

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Usefulness, Service Quality Compatibility, followed by Reliability, Social Influence and Attitude, that have the most significant influence on behavioural intention to utilise social commerce by SMEs.

Conflict of interest. Nil

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