

## Validating the factors influencing social commerce adoption in small and medium enterprise in malaysia

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### ABSTRACT

Electronic commerce has been growing at a rapid rate in many countries, including developing countries. In recent years, social media and social networking sites have become popular and such popularity has led to a novel e-commerce branch known as social commerce. In Malaysia, it is observed that individuals and organizations have begun to sell and purchase using social media. But studies on s-commerce adoption in Malaysia are still lacking. Therefore, this study aimed to investigate the effects of technological, organizational, and trust factors on social commerce adoption among SMEs in Malaysia. This paper presented the factors, collected from literature, which influence the adoption of social commerce, and the results of an exploratory pilot study.

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## 1. INTRODUCTION

E-commerce is an emerging and convergence of numerous main information technologies in business practices [1]. Electronic commerce (E-commerce) has been growing in a rapid rate in many countries including developing countries such as Arab and Asia countries. In recent years, the increasing popularity of social media and social networking sites has given rise to a new stream of electronic commerce, called social commerce. Social commerce is a new stream and subset of e-commerce [2]. By combining e-commerce activities with social media, social commerce enables consumers to participate, communicate, and interact in the online selling and buying of products and services. However, many e-commerce companies today are still trying to find out which factors influence consumers to participate in social commerce [3].

E-commerce is dividing into three categories: business to business or B2B (Cisco), business to consumer or B2C (Amazon), and consumer to consumer or C2C (eBay [4]). S-commerce is different from e-commerce in terms of organization objectives, customer relationships and system procedures. First, the organizational goal of e-commerce is to increase efficiency with the strategies used in searchers' one-click purchasing, specification-centered virtual catalogs and recommendations built on the prior shopping pattern of consumers. On the other hand, social commerce is more centered on social goals like networking, cooperation and sharing information, while shopping is only a secondary concern. In respect of customer relations, customers often communicate with e-commerce platforms (individual and independent) from other customers, whereas s-commerce entails online publics supporting social relationship to improve customers' interaction. Moving on to system interaction, e-commerce refers to a classic form of interaction, using one-way browsing. In this approach, customer-derived information is seldom made available to businesses or their rivals. However, in social commerce, social and interactive approaches are developed, allowing

customers to provide their feedback and to make known their thoughts, and share information with their online community and with businesses [5].

Malaysia is among the first countries in Asia to establish a Ministry of e-commerce development and to be the leader in promoting the growth of ICT with the support of several bodies like the Malaysian Communications and Multimedia Commission and Multimedia Development Corporation [6].

The emergence of s-commerce in Malaysia has been an interesting but challenging phenomenon that cannot be ignored. Majority of the people in Malaysia have begun to sell and purchase using social media, but studies on s-commerce are still lacking, SMEs in developing countries still have a low level of IS adoption, it is important to focus on how to enhance the internal infrastructure of these organizations to increase their level of adoption in Malaysia. and what little there is has focused on forecasts, speculations, experiences and status reports on s-commerce in Malaysia [7].

**2. RESEARCH METHOD**

This present study began with a comprehensive review of the literature and compiled a detailed list of variables determined as important factors in the adoption and use of social commerce. On the basis of the literature review, this study investigated the influential variables in the adoption of s-commerce (SC) by enterprises from various aspects. First, SC was viewed as a technological innovation; the study examined SMEs’ adoption of SC from an innovation dispersion perspective. Secondly, the success of SC could be influenced by features of the organization itself; therefore, the appropriate trust factors were included in the analysis based on the internal characteristics of the firm. Following a thorough assessment of variables examined earlier, a conceptual model was created (see Figure 1) which facilitated the research direction. The model comprised three aspects of the factors: 1, Technological factors, 2, Organizational factors, and 3, trust factors.

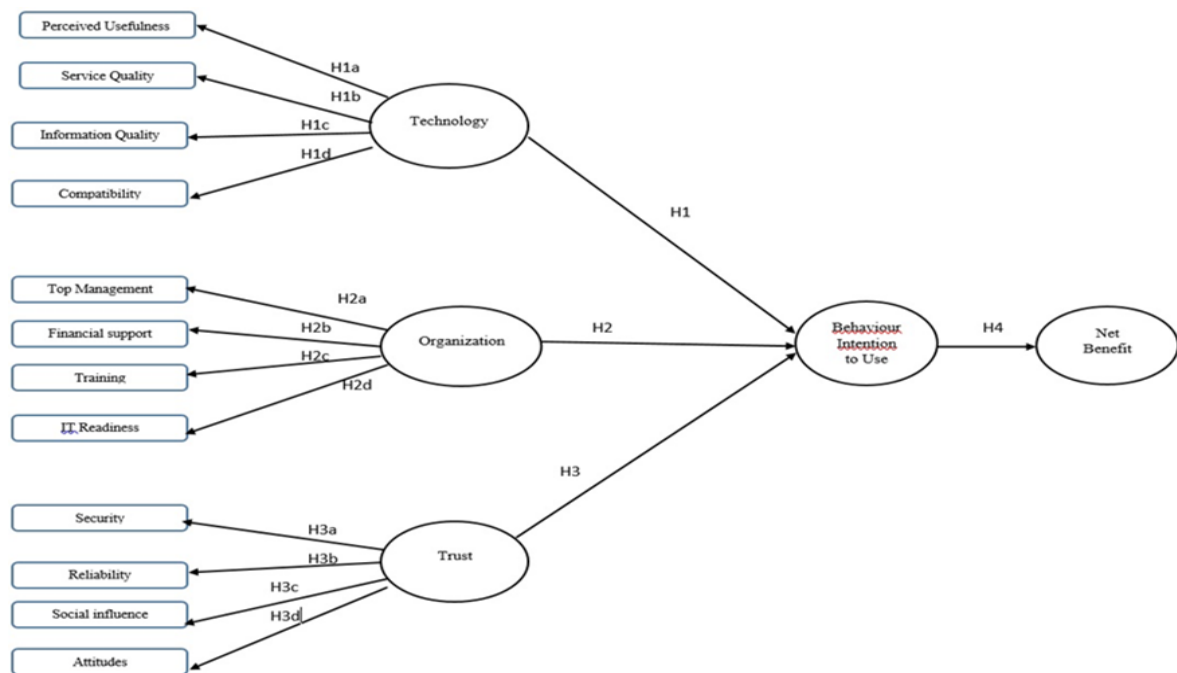


Figure 1. Model of social commerce adoption

H1: Technological factors positively affect the behavioral intention to use SC among SMEs.

H2: Organizational factors positively affect the behavioral intention to use SC among SMEs.

H3: Trust factors positively affect the behavioral intention to use SC among SMEs.

H4: Behavioral intention to use SC is closely related to the net benefits of SMEs.

A quantitative research approach was employed in this pilot study. The participants were Malaysian owners and managers of SMEs. The selection of the participants (N=200) was for the study sample of and done employing random sampling. With regard to the number of the sample, SEM analysis requires the sample to be not less than 100 [8].

Furthermore, employing smart PLS path modeling indicates that the sample size to be 30-100 cases. Therefore, 100 respondents were deemed adequate. The questionnaire design was based on prior literature adapted accordingly to suit this study[9]. The survey questionnaire employed for collection of the data from the sample was derived from earlier works on social commerce and utilised as presented in Table 1.

The questionnaire consists of 67 items adapted by the researchers based on the objectives of the current study. In response to each item, the participant was required to choose one of the five-point Likert-scales that ranged from (1) “strongly disagree” to (5), “strongly agree.” Copies of the survey questionnaire were disseminated to 100 SME managers in Malaysia online and manually but only 45 returned questionnaires were deemed useful for analysis. The data were analysed employing SEM through smart PLS 2 software.

Table 1. Variables and Items

Constructs	Question description	References
Perceived Usefulness	I would find the social commerce services system useful in my work job.	[10]
	Using social commerce services enables me to accomplish tasks more quickly	[11]
Service quality	Using social commerce services enables me to accomplish tasks more efficiently.	[11]
	If I use social commerce services, I will spend less time on routine job tasks.	
	Using social commerce services would make it easier to do my job tasks.	
	Using social commerce increases my professional performance.	
	Social commerce understands the specific needs of its users.	
	I feel safe when I use social commerce.	[12]
Compatibility	When sellers on social commerce promise to do something by a certain time, they should follow through.	[13]
	Sellers on social commerce must always be willing to help customers.	[14]
	My overall opinion of the services provided by social commerce is very good.	[15]
	The social commerce fits with all aspects of our work	[16]
	The social commerce is consistent with our company culture.	[14]
	Transformation towards social commerce adoption in our company is favorable.	[17]
Information quality	Social commerce is compatible with our IT infrastructure.	
	The adoption of social commerce is consistent with our business strategy.	
	This s-commerce firm provides sufficient information when I try to make a transaction.	
	The web site provides updated information.	[18]
	It is easy to find the information that I need.	[15]
Top management support	Overall, I think this s-commerce firm provides useful information.	[19]
	The web site provides timely information.	
	This s-commerce firm provides reliable information	
	My top management is likely to consider the adoption of social commerce as strategically important.	[20]
IT Readiness	Top management would support the use of social commerce.	[21]
	Top management would provide resources necessary for the adoption of social commerce	[21]
	My top management is willing to take risks involved in the adoption of social commerce	
	Our management constantly encourages the employees to use new technologies in their daily work.	
	Our organization is well-computerized using a local area network	
Training	We have a high bandwidth Internet connectivity.	[22]
	Our organization has individuals who are experts and well-skilled in IT and social commerce technologies.	[16]
	We have experts who are able to plan, carry out, and evaluate all procedures related to adoption and implementation of social commerce technology.	
	Our organization is well-computerized using a local area network.	
	My company provided me complete training in using cloud computing.	
Financial support	The training gave us confidence in use of cloud computing	[21]
	My learning and training is/was useful for online shopping.	[23]
	My level of understanding was substantially improved after going through the training program on cloud computing.	
	I have had training to use social commerce and the internet to shop online.	
	On social commerce, some people would offer suggestions when I needed help.	
Security	When faced with difficulties, some people on social commerce would help me discover the cause and provide me with suggestions.	[24]
	When I encountered a problem, some people on social commerce would give me information to help me overcome the problem.	[16]
	When faced with difficulties, some people on social commerce are on my side with me.	[25]
	I believe the financial information I provide with Social Network will not be manipulated by inappropriate parties	[26]
Security	I am confident that the private financial information I provide with Social Network will be secured	[27]
	Using credit cards to purchase from this Social Network is safe	
	In general, making payments online in Social Network is risk free.	
	I think this Social Network shows great concern for the security of any transactions	
	I think this Social Network has mechanisms to ensure the safe transmission of its financial	

Constructs	Question description	References
Reliability	information	
	Most e-commerce systems are capable of processing a large number of transactions, connections, or large orders efficiently.	[28]
	E-commerce technologies are effective in keeping the accurate value of data.	[14]
	The online bookstore shows a sincere interest in solving customer problems.	
Social Influence	Transactions with the online bookstore are error-free.	
	The online bookstore has adequate security	
	People who are important to me think that I should use social commerce services.	[10]
	I would use social commerce services if my colleagues used them.	[29]
Attitudes	People who influence my behavior think I should use social commerce services.	[30]
	Using internet banking service indicate me to have a higher status than those who do not	
	The government encourages using the social commerce services system.	
	I think positively about selling products through social commerce.	
Behavioural Intention	I like to visit social commerce for selling my product.	[31]
	I like to use the social commerce when contact with buyer	[32]
	Using social networking sites for social commerce is a good idea.	[33]
	Using the Internet to purchase a product seems an intelligent idea to me	
Use S-Commerce Adoption	I intend to use is-commerce service in the near future	
	I predict I would use s-commerce service in the near future	[10]
	I plan to use s-commerce service in the near future	[29]
	We intend to continue using SC in our organization.	[34]
Perceived Net Benefits	Our organization has sought for adaption of SC technology in our work.	
	I will recommend others to use social commerce.	
	I think that using social networking sites can save me time in conducting social commerce.	
	The social commerce helps the organization provide new products or services to customers	[34]
	The social commerce helps the organization enhance competitiveness or create strategic advantages.	[31]
	The social commerce enables the organization to respond more quickly to change.	[26]
	The social commerce helps the organization increase return on investment.	[35]
	The social commerce helps the organization to achieve its goal and improve job performance	[36]
Using this Website enables me to accomplish a shopping task more quickly than using traditional stores.		
	Using this Website increases my productivity in shopping (e.g. making purchase decisions or finding product information within the shortest time frame).	
	I intend to use Social Network for my next purchase	
	I can save money by using this Website	

### 3. RESULTS AND ANALYSIS

Partial least squares (PLS) technique through the SmartPLS 2.0 software was applied to analyse the data collected. Components-based structural equation modeling (SEM) such as PLS is rapidly becoming a widely-used alternative to covariance-based SEM. The data analysis was conducted with SPSS version 22 and Smart PLS version 2. Specifically, the sample's descriptive statistics were obtained through the former software. On the other hand, following the suggestion of [37], a two-step analysis approach was adopted in analyzing the data, whereby the measurement model was first estimated prior to assessing the structural model.

#### 3.1. Descriptive Statistics

The current study used a descriptive analysis of the profile of the participants. This type of analysis is conducted at the early stage of any data analysis prior to carrying out other types of statistical analyses. In this study, the respondents' characteristics are important since they provide better insights into or information of the study population. In the current study, a number of 100 questionnaires were distributed to the Malaysia SMEs in Selangor in the year of 2018. However, only 45 questionnaires were collected. From the collected questionnaires, for pilot study only 45 questionnaires were analysed.

These results show that the majority of the respondents were females in this study. Moreover, the results showed that in terms of their age, most of the respondents were at the age group of over 40 years. Mainly, the respondents held Bachelor degree. Furthermore, the descriptive analysis reveals that the majority of the population (95.6%) was represented by those small size enterprises having 4-19 employees. The reason behind this higher response rate is due to the greater number of small medium enterprise operating in Selangor Malaysia, the targeted areas where the data was collected for this study.

As seen in Table 2, [38]pointed out that the acceptable value of Cronbach's alpha coefficient is 0.70 or above for an instrument to be considered reliable . The results confirmed that all scales met the required Cronbach's alpha (0.70) and above ). The results are shown in Table 3. The Cronbach's alpha value is 0.960,

which is indicative of the excellent reliability. The results confirmed that all items be 0.978 above 0.70 the result is Excellent According to [38].

**Table 2. Alpha Coefficient Ranges and Strength**

Alpha Coefficient Range	Strength of Association
< 0.6	Poor
0.6- to < 0.7	Moderate
0.7- to < 0.8	Good
0.8- to < 0.9	Very good
> 0.9	Excellent

**Table 3. Reliability Items Of The Questionnaire In Pilot Study**

Pilot test of measurements ( n=45)			
Variable No	Variables	No of Items	Cronbach's alpha
1	Perceived Usefulness	5	0.941
2	Social commerce service quality	4	0.925
3	Compatibility	5	0.927
4	Information quality	6	0.918
5	Top management support	5	0.946
6	IT Readiness	5	0.856
7	Financial support for adoption of social commerce	4	0.947
8	Training	5	0.917
9	Security	5	0.936
10	Reliability	4	0.894
11	Social Influence	5	0.879
12	Attitudes	5	0.923
13	Behavioural intention to use social-commerce	4	0.954
14	NET Benefit	5	0.972
	N of Items	67	0.978

### 3.2. Measurement Model

The measurement model consists of relationships among the latent variables and their (item) indicators. It is necessary to first establish construct validity for the measurement model before assessing the structural model for hypothesis testing. Construct validity concerns 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 condition for establishing construct validity. As recommended by [39], factor loadings, composite reliability and average variance extracted (AVE) were used to assess convergent validity. See in Table 4 lists the indicator loadings/weights, reliabilities and AVE for all the items listed in the model.

As shown in the Table 4, the CR values ranged from 0.911 to 0.978, while those of the Cronbach's alpha values were from 0.709 to 0.967. Also, AVE values were above (>0.5) All the above values are at the recommended threshold value of 0.70. Moreover, in comparing the CR values with the Cronbach's alpha values, it is evident that CR is indeed a stronger measuring criterion for assessing the internal consistency reliability. Thus, the results of Cronbach's alpha and CR indicate that the investigated constructs of the current study have high levels of internal consistency reliability.

## 4. CONCLUSION

The present study aimed to examine the effects of technological, organizational, and trust factors on SC adoption among SMEs in Malaysia. In this study, 45 respondents were chosen from different levels of management to complete the questionnaire and provide their feedback in terms of their understanding of it. Their feedback was used to further refine the instrument and to guarantee its effectiveness in collecting data. The current study was proved to be reliable and valid. This is because the loadings of all investigated factors were above the recommended value 0.7, thus showing that the indicator reliability was acceptable. The results also revealed that the values of the construct composite reliability and Cronbach's alpha exceeded the suggested value of 0.7, thus implying that the internal consistency reliability was acceptable. Concerning the AVE of the constructs, they also exceeded the value of 0.5 suggested by previous research, indicating acceptable level of the convergent validity.

Table 4. Results of Measurements Model–Convergent Validity

Constructs	Items	Loading	AVE	CR
Perceived Usefulness	PU1	0.922	0.809	0.955
	PU2	0.918		
	PU3	0.871		
	PU4	0.898		
	PU5	0.887		
Social commerce service quality	SCSQ1	0.894	0.816	0.947
	SCSQ2	0.914		
	SCSQ3	0.925		
	SCSQ4	0.881		
Compatibility	CM1	0.842	0.775	0.945
	CM2	0.927		
	CM3	0.899		
	CM4	0.908		
	CM5	0.821		
Information quality	IQ1	0.864	0.709	0.936
	IQ2	0.864		
	IQ3	0.791		
	IQ4	0.820		
	IQ5	0.841		
	IQ6	0.871		
Top management support	TMS1	0.924	0.822	0.958
	TMS2	0.918		
	TM3	0.901		
	TMS4	0.884		
	TMS5	0.906		
IT Readiness	ITR1	0.717	0.636	0.897
	ITR2	0.801		
	ITR3	0.831		
	ITR4	0.868		
	ITR5	0.764		
Financial support for adoption of social commerce	FS1	0.921	0.861	0.961
	FS2	0.937		
	FS3	0.919		
	FS4	0.935		
Training	T1	0.676	0.755	0.938
	T2	0.921		
	T3	0.930		
	T4	0.896		
	T5	0.895		
Security	S1	0.883	0.792	0.950
	S2	0.895		
	S3	0.847		
	S4	0.879		
	S5	0.941		
Reliability	R1	0.880	0.748	0.922
	R2	0.901		
	R3	0.807		
	R4	0.868		
Social Influence	SI1	0.854	0.672	0.911
	SI2	0.709		
	SI3	0.889		
	SI4	0.840		
	SI5	0.795		
Attitudes	AT1	0.823	0.764	0.942
	AT2	0.834		
	AT3	0.924		
	AT4	0.899		
	AT5	0.887		
Behavioural intention to use social-commerce	BI1	0.903	0.879	0.967
	BI2	0.950		
	BI3	0.943		
	BI4	0.953		
NET Benefit	NB1	0.947	0.898	0.978
	NB2	0.951		
	NB3	0.918		
	NB4	0.956		
	NB5	0.967		

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

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