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Assessment of Supply Chain Finance Adoption among Malaysian Manufacturing Firms

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Malaysian's manufacturing firms always face difficulty in getting financial assistance from financial institutions. Despite the many financing products available, supply chain finance (SCF) adoption is very lacking. Since SCF is relatively unfamiliar compared to conventional or Islamic financing, the adoption rate is very low. The purpose of this paper is to investigate the determinants of SCF Adoption Intention in the context of Malaysian manufacturing industries. Using the theory of planned behaviour (TPB) and the technology acceptance model (TAM), it is aimed to explain the effect of Knowledge and Awareness, Cost Benefit, business support and Reputation as well as Perceived Ease Of Use (PEOU) and Perceived Usefulness (PU), on adoption Attitude and intention towards SCF. The study used a quantitative approach via 1,000 questionnaires distributed to Malaysian's manufacturing firms, and only 411 were returned. Structural equation modelling using partial least squares approach was then utilised to assess the relationships of all variables. Data has been tested using a measurement model while structural model assessment was performed to test the hypotheses. The findings show that Knowledge and Awareness, Cost Benefit, Reputation, PEOU and PU have positive effect on adoption Attitude of Malaysians manufacturing firms towards SCF. Attitude, Subjective Norm and Perceived Behavioural Control have a positive effect on Adoption Intention, while Attitude only mediates Knowledge and Awareness, Cost Benefit, Reputation and Adoption Intention. The mediation effect of Attitude implies the importance of recommendations and favourable word-of-mouth from the significant ones, such as family members and peers, to make manufacturers willing to try and adopt it. The study contributes to the body of knowledge by having an extensive use of TPB with TAM in the context of a manufacturing firm in explaining the SCF Adoption Intention. Given the need to explore new financing products,

understanding SCF would contribute to the manufacturing industries and to the Malaysian economy.

Key words: *Supply Chain Finance (SCF), Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), Structural Equation Model, Manufacturing.*

Introduction

Supply chain finance (SCF) adoption behaviour has been known to be complex since there are multiple factors that could affect the decision-making process (Ahmad et al., 2018). However, despite being mostly comfortable with existing financing option albeit conventional or Islamic, manufacturers are willing to explore any new financing product in the market to satisfy their financing needs. As a result, SCF is found to be an evolving trend in recent times and continues to blend into mainstream financing options in the west especially in United States (US), followed by Europe, particularly in the UK and Germany (PWC, 2014).

Although SCF in Western countries and Europe are receiving great popularity among the manufacturers, the same cannot be said in the Asian context (Ahmad et al., 2018; PWC, 2014). While Asian countries gaining momentum is becoming the fastest growing market of SCF in the future (Ahmad et al., 2018; PWC, 2014), research on Asian SCF adoption was very lacking. Despite the robust Asian financial system and its important task internationally (Jia et al., 2019; Eckhardt and Dholakia, 2013; Hong and Kim, 2013; Seo, 2013) literature on SCF adoption has only being identified in China and India (Jia et al., 2019; Ahmad, et al., 2018; PWC, 2014). Although the Asian countries are gaining momentum which make it a good place to do business, it is astonishing that the SCF adoption rate was very low (Ahmad et al., 2018).

Specifically, the awareness and acceptance of SCF in developing countries such as Malaysia has yet to be looked into. Usually companies will be more focused on its long-term financial investments and assets rather than the short-term (Aktas, Croci, and Petmezas, 2015; Singhania and Mehta, 2017). In addition, companies also lack to look into how to optimise the flows of goods, information, and the financial flows within and between companies by functional and cross-company integration. The financial flows between companies of the supply chain, also, were often neglected and have only recently found greater attention in the academic SCM literature (Pfohl and Gomm, 2009; Chain, 2015; Kleemann, 2018; Paper and Arnhem, 2016; Steeman, de Goeij, and Klapwijk, 2015). Despite its magnitude, there is an extreme lack of study done to date to understand the importance of SCF in assisting the manufacturing firms in Malaysia to smoothen their supply chain process and operation without any delay in term of delivery as well as payments by assessing its adoption level (Lambert, Cooper and Pagh, 1998; Pfohl and Gomm, 2009; Wuttke et al., 2013).

Given the gaps in the literature on the subject matter, the present study serves as groundwork to investigate SCF Adoption Intention using the theory of planned behaviour (TPB) and the technology acceptance model (TAM) among Malaysian's manufacturers. Since SCF is considered relatively unfamiliar compared to the existing conventional or Islamic financing, Attitude is scrutinised in the TPB model to assess its mediation effect on the relationships under study.

Literature Review

Supply Chain Finance (SCF)

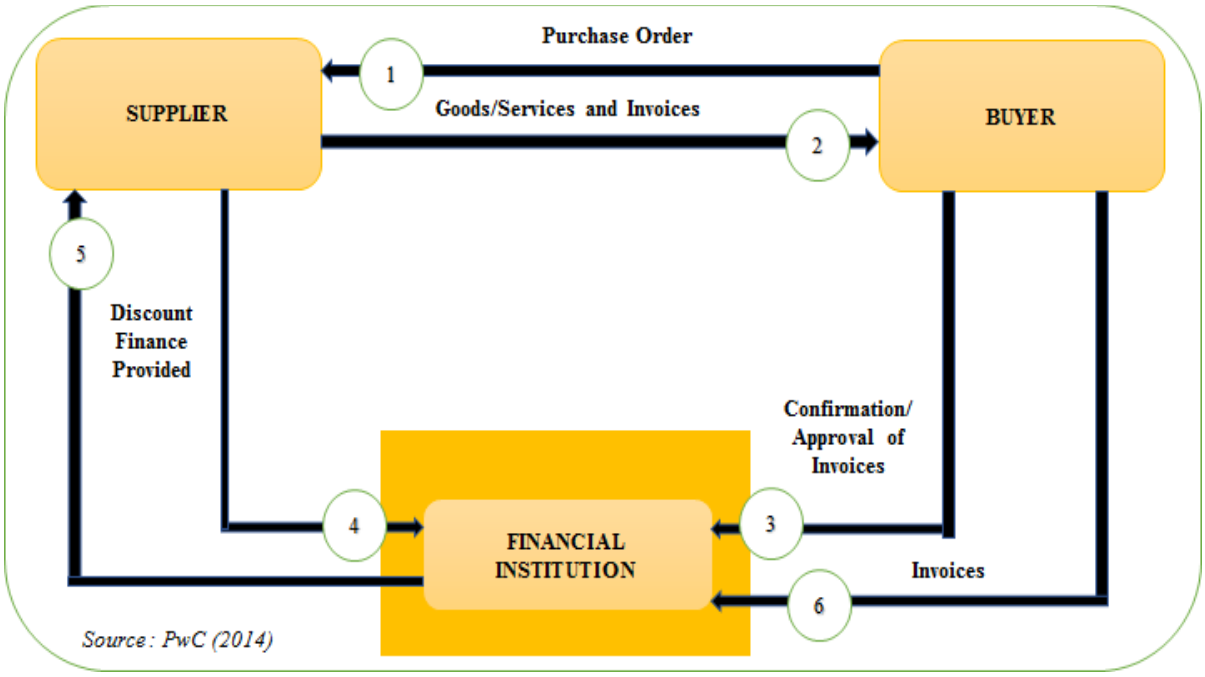
The SCF refers to solutions that optimise flow of cash through allocation of buyers in extending payment terms to suppliers (Luca et al., 2016; Prime Revenue, 2016). Time extension to pay suppliers enhances some financial metrics, such as Cash Conversion Cycle (CCC), Average Payment Period (APP), Inventory Conversion Period (ICP), and Average Collection Period (ACP), particularly in freeing up cash, which would be stuck within supply chain. Hence, additional flow of cash could be used for investment that may add to firm growth via stock repurchase/dividend to shareholders. SCF aids suppliers mitigate the impact of extended payment term to enhance their flow of cash, because they may get early payment upon invoice approval by buyer. Suppliers may pay earlier for none, some or all receivables based on funding demands and financial state. Suppliers can give discounts or pay finance charge for receivables paid earlier (Luca et al., 2016).

This can take place without giving negative impact on firm balance sheet. Upon proper accounting, SCF is not a debt, but offers a win-win scenario for suppliers and buyers (Prime Revenue, 2016; PwC, 2014). With buyers being the obligated party, suppliers are offered financing with preferred rates based on rating and credit history of buyers. Such lower cost funding is significant for most suppliers. Suppliers have extra operating cash flow due to early payment, while buyers can optimise their working capital due to the extended payment time (Steeman et al., 2015). Figure 1 illustrates SCF in detail.

Understanding aspects not embedded in SCF is vital. SCF offers extended payment time to buyers that does not serve as debt or loan, whereas non-recourse and true sales of receivable for suppliers. The non-lending concept on both parties does not impact their balance sheet (Prime Revenue, 2016). SCF is neither early payment nor dynamic discounting scheme that seeks discount to lower cost of goods, instead of improving cash flow. Moreover, the mentioned schemes can be expensive for suppliers who get less payment, while buyers tend to use up their cash in funding the schemes. SCF is not factoring (Prime Revenue, 2016), as factoring allows suppliers to sell invoices to factoring agents (e.g. financial institutions) for partial early payments without prior arrangement with buyers. This makes factoring more

expensive. Furthermore, factoring schemes are mostly recourse loans; whereby suppliers get paid for invoices buyers do not pay, hence allowing the lender to withdraw the funding.

Figure 1. Supply Chain Finance Concept (PwC, 2014)



1. Buyer buys goods or services by giving purchase order to supplier;
2. Supplier delivers goods/services to buyer with standard credit term e.g. 14 days;
3. Buyer approves invoice to be paid using SCF platform;
4. Supplier requests for discount facility to the financial institution;
5. The financial institution immediately pays to supplier upon receiving invoice approval from buyer;
6. Buyer pays to the financial institution with an agreed extended credit term e.g. 30 days

Supply Chain Finance Adoption Intention

A study by Hofmann (2005) mentioned that the financial elements of supply chains have been gaining attention. Supply chain managers nowadays need to take into consideration during their budget preparation to include the flow of payments. The issue of financial problems as well as economical needs to be addressed throughout the supply chain as it could impact on the business operation. There was an issue as to whether the supply chain manager understands the importance of the financial elements in the supply chain (Bryant and Camerinelli, 2014; Cormac, 2014; PricewaterhouseCoopers, 2015; Wang, 2016). In addition, Pfohl and Gomm (2009) in their study on SCF: *optimising financial flows in supply chains* had come to the conclusion that SCF can provide many benefits to the companies that are strongly integrated within the supply chain and have a high level of cooperation or collaboration.

On the other hand, Wuttke et al. (2013) findings on managing the innovation adoption of SCF where he studies six European companies among others revealed that the supply chain manager needs to collaborate with the finance people to study and understand the SCF mechanism. This means that the logistic people in the organisation need to understand how their supply chain process until the payment made through online.

Therefore, this study is scrutinising the adoption level of SCF among the Malaysian manufacturing companies. Why they were still not coming on board to implement SCF within their supply chain operations. As mentioned by Hofmann (2005), despite many benefits that SCF could offer there were still lacking SCF adoption among Malaysian manufacturing company. The reason could be lack of awareness among the companies on what SCF is all about (More and Basu, 2013; Lambert, 1998). This is because less or no promotion by relevant parties in disseminating information about the SCF services (Caniato et al., 2016; Jemdahl, 2015; Lo and Hung, 2016; Oana, 2017). In addition, the Attitude of the manufacturer also contributed to the lack of SCF adoption. This is where the study applies the Theory of Planned Behaviour to see whether Attitude is among the factors that contributes to less adoption of SCF among Malaysian manufacturing companies.

TPB

Given the various financing options and SCF Adoption Intentions, the TPB by Ajzen (1991), an extension of the theory of reasoned action, is adopted as the underpinning basis to explain manufacturer intention to use SCF. Over the years, TPB has been applied in research of various fields, including SCF Adoption Intentions (Ahmad et al., 2018; Caniato et al., 2016; Jaffar and Musa, 2016), thus justifying its use in the present study. In TPB model, behavioural intention is the direct antecedent of behaviour (Ajzen, 2002). Behavioural intention, in turn, is explained by three key variables, namely Attitude, Subjective Norm and Perceived Behavioural Control. While Attitude is an entity's evaluation of firm-performance of SCF adoption behaviour, Subjective Norms are people's expectations regarding the judgment of significant others about them using SCF. Perceived behavioural control denotes perceived ease or difficulty to use SCF. In other words, it refers to a manufacturer's capacity to use SCF (Ahmad et al., 2018). Since the present study is a pioneering attempt on the subject matter and concerns only those who do not have SCF, intention, rather than actual behaviour, is constructed as the outcome variable in the TPB model of study. In addition, this study is to develop a comprehensive model to assess Adoption Intention and Attitude towards SCF from the stance of manufacturers and focused on salient beliefs amidst the manufacturing industry in Malaysia.

TAM

As for theory development, this study presents a new platform for studies linked with technology acceptance by embedding SCF setting features in a model of SCF use and adoption. This model initiates new variables from the amalgamation of TPB and TAM within a new scope. As consumer behaviour has been analysed vastly with marketing and economic theories, the significance of technology-linked variables has been highlighted in estimating online consumer behaviour (Jarvenpaa et al., 1999; McKnight et al., 1998; Pavlou, 2003). The study outcomes display the importance of assessing the function of uncertainty in scenarios, wherein perceived ease of use (PEOU) and perceived usefulness (PU) can influence use of system (Jaffar and Musa, 2016). This present approach embeds insights and richness in comprehending one's reactions to SCF use and adoption (Ahmad et al., 2018). Despite being robust and parsimonious, past studies that used TAM highlighted expected operational results using PEOU and PU in describing behavioural intention. Despite the presence of intent, lack of resources, skills, and self-efficacy would lead to failure in executing the behaviour (Ajzen, 1991). Even though TPB probes into behavioural intention, it dismisses beliefs that could impact one's Attitude and intent of executing certain behaviour (Ahmad et al., 2018). Hence, this lack in TPB is addressed by TAM via PEOU and PU, wherein these theories complement each other.

Incorporation of PEOU and PU beliefs into TAM framework in this study enriches their functions in building perceptions, apart from impacting intent and Attitude towards technology use (Jaffar and Musa, 2016). This study contributes to literature of TAM by determining the impacts of external variables on TAM beliefs (PEOU and PU). The outcomes emphasise the formation of PEOU and PU, as well as their effect on SCF acceptance. The empirical results display that amalgamation of TPB and TAM, along with additional variables, exhibit exceptional explanatory power (Ahmad et al., 2018). Attitude has nil mediation effect on PEOU and PU, hence contributing to the literature about the significance of Attitude in describing one's technology acceptance.

Hypotheses Development

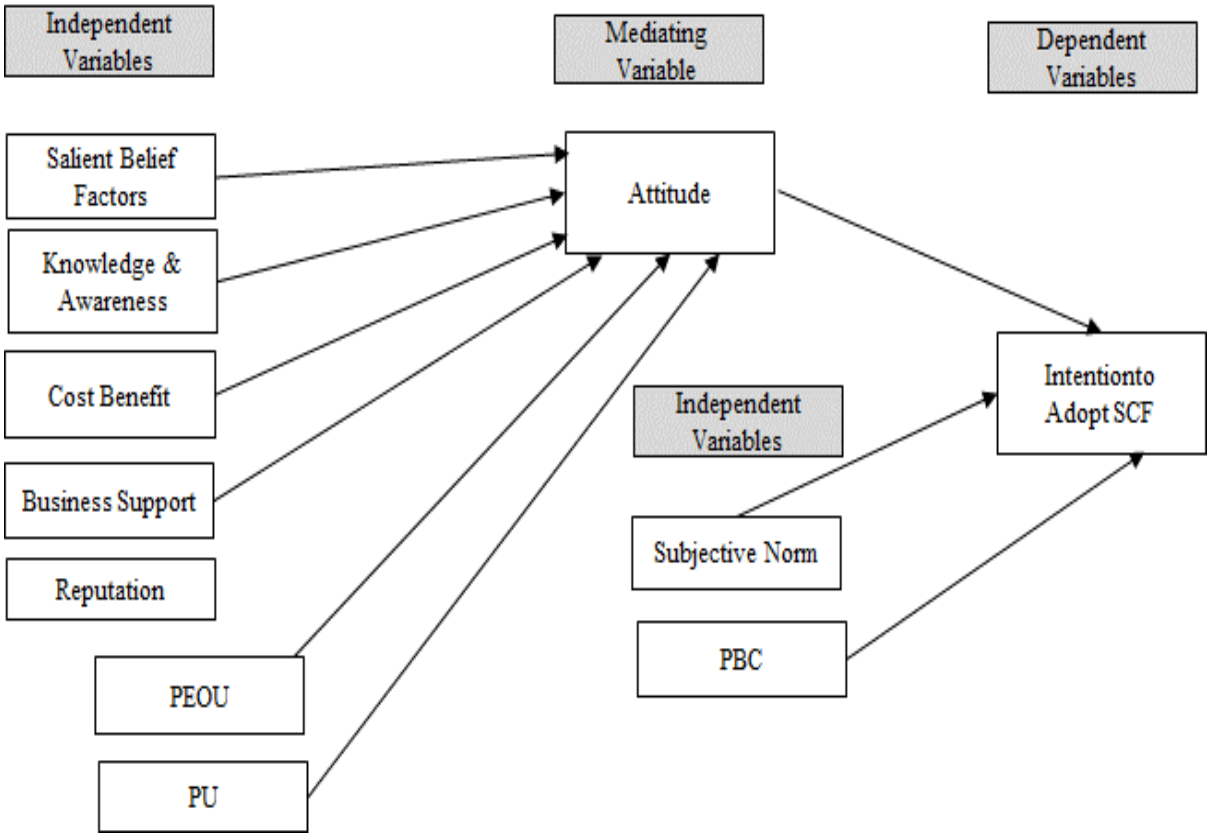
Past studies on the issues of financing options Adoption Intention in Malaysia are basically conventional i.e. short term loan, mortgages etc. (Ahmad et. al., 2018) or Islamic financing (Jaffar and Musa, 2016). Appropriate studies on willingness to attempt new financing options, are predominantly about Islamic financing (Ahmad et al., 2018). Nevertheless, lack of literature on SCF especially among Malaysian manufacturers Adoption Intention and behaviour demonstrates a big gap in the literature. Moreover, there is a scarcity of knowledge to communicate factors that affect manufacturer Adoption Intention in the Malaysian context. Employing TPB and TAM as the underpinning theory, directional hypotheses are expanded to

examine the effect of salient belief factors, PEOU, PU, Attitude, Subjective Norm and Perceived Behavioural Control towards using SCF on Adoption Intention as shown in Figure 2. Therefore, the following hypotheses are formulated:

H1. There is a relationship between awareness and knowledge and Attitude.
H2. There is a relationship between Cost Benefits and Attitude.
H3. There is a relationship between business support and Attitude.
H4. There is a relationship between Reputation and Attitude.
H5. There is a relationship between perceived ease of use and Attitude.
H6. There is a relationship between perceived usefulness and Attitude.
H7. There is a relationship between Attitude and intention.
H8. There is a relationship between Subjective Norm and intention.
H9. There is a relationship between Perceived Behavioural Control and intention.

Since past literature shows inconclusive results on what affects adoption of unfamiliar SCF, Attitude is used to evaluate its mediating effect on the stated behavioural relationships in the current study as shown in Figure 2. Despite of the fact that unusual and fear may lead to not trying SCF, it is not known how Attitude would affect the relationships under scrutiny. Hence, the hypotheses are formulated as follows:
H10. The relationship between awareness and knowledge and intention to adopt SCF is mediated by Attitude.
H11. The relationship between Cost Benefits and intention to adopt SCF is mediated by Attitude.
H12. The relationship between business support and intention to adopt SCF is mediated by Attitude.
H13. The relationship between Reputation and intention to adopt SCF is mediated by Attitude.
H14. The relationship between perceived ease of use and intention to adopt SCF is mediated by Attitude.
H15. The relationship between perceived usefulness and intention to adopt SCF is mediated by Attitude.

Figure 2. Research Model



Methodology

The manufacturing domain in Malaysia contributes approximately 80% of the total export value, and has been ranked the 17th largest exporting country across the globe (Musa, 2016). Thus, the government has taken much effort in preserving and improving the manufacturing industry. Musa (2016) asserted that Malaysian manufactured goods are acceptable in the US, Japan, and the European United (EU); indicating a great achievement. Doing business with multinational organisations worldwide require an organisation to be more efficient in delivering goods as well as payment. Given the fact that it is a ground work study, manufacturing firms are the target population retrieved from the Federation of Malaysian Manufacturer directories 48th Edition (2017). A G-power analysis is used to determine minimum sample size to ensure adequate statistical capacity to investigate and explain the variables under investigation (Kock and Hadaya, 2018).

A quantitative approach using self-administered questionnaire was adopted. All statements pertaining to salient belief factors, PEOU, PU, Subjective Norm, Perceived Behavioural Control, intention and Attitude were adapted from past literature (Ahmad et al., 2018; Jaffar and Musa, 2016). All key variables were measured by multiple statements, as this would afford

greater degrees of freedom when partitioning the data into groups. It would also allow for adjustment of measurement error, thus increasing their reliability and predictive validity (Hair et al., 2014). Statements were also organised in sections without randomisation based on the common objectives and contexts of the statements (Burns and Bush, 2005). Except for demographic information, a seven-point Likert scale where 1 indicates strongly disagree to 7 indicating strongly agree was adopted to measure the statements. A card sorting exercise was administered to secure face validity of the questionnaire (Jahrami et al., 2009). Furthermore, a pretest was conducted using the target respondents to finalise the usability of the questionnaire (Hunt et al., 1982). Purposive sampling technique was adopted to distribute questionnaire at manufacturing firm's offices in Malaysia. In all, 1,000 copies were distributed, and 411 completed and usable copies were collected in a month's time in June 2018, indicating that non-response bias was not a major issue.

All data were then put into SPSS and transferred to Smart PLS to execute latent variable analysis (Ringle et al., 2015). The Smart PLS is using structural equation modelling of partial least squares (PLS-SEM) technique to enhance predictive relevance by maximising the variance of key target variables by different explanatory variables (Hair et al., 2017; Henseler et al., 2009). PLS-SEM is getting famous in describing difficult user behaviour in marketing research (Hair et al.,2012). It is definitely suitable for the current analysis instead of covariance-based SEM due to two reasons. First, as SCF is not part of TPB and is adopted as the key construct to assess consumption intention in a relatively unfamiliar context, the focus of the study is more on the explanative capacity by components, rather than reproducing of covariance matrix to achieve model fit (Hair et al., 2017). Second, since Malaysian manufacturer are sampled, PLS-SEM is preferred because it requires fewer demands on sample size and data normality (Astrachan et al., 2014; Barnes et al., 2001). Thus, PLS-SEM is used to assess latent variable and mediation analyses in the study.

Findings

Respondent Demographics

Table 1 shows the demographic information of 411 Malaysians manufacturing firms for this study. Most of the respondents are found to be a financial controller.

Table 1: Demographic Profile

Variables		**(n = 411)**	
		Number of respondents	**Percentage (%)**
Gender	Male	186	45.3
	Female	225	54.7
Age	Less Than 26	3	0.7
	26 To 35	38	9.2
	36 To 45	168	40.9
	46 To 55	141	34.3
	More Than 55	61	14.8
Education	STPM/Diploma	47	11.4
	Bachelor/Degree	264	64.2
	Master	53	12.9
	Professional	47	11.4
Position	Finance Manager	53	12.9
	Senior Manager	52	12.7
	Financial Controller	90	21.9
	Treasury Manager	65	15.8
	Supply Chain Manager	67	16.3
	Chief Executive Officer	12	2.9
	Chief Financial Officer	15	3.6
	Head Of Department	57	13.9

Measurement Model

Table 2 depicts the assessment of construct reliability as well as convergent validity for the variables of this study. The composite reliability (CR) values of 0.946 (BE), 0.821 (BU), 0.857 (EB), 0.917 (EC), 0.924 (EK), 0.878 (ER), 0.848 (FA), 0.841 (GS), 0.946 (HP) and 0.831 (IN) demonstrate that theses constructs have high levels of internal consistency. Similarly, the variables in this study demonstrate good convergent validity. All the constructs achieve a minimum threshold value of 0.5 for average variance extracted (AVE) which is an indication that the items explain more than 50 per cent of the construct's variances (Hair et al., 2017)

Table 2: Internal Consistency and Convergent Validity

Constructs	**Items**	**Loading**	**Composite Reliability**	**AVE**
Perceived Ease of Use	BE1	0.862	0.946	0.815
	BE2	0.929		
	BE3	0.934		
	BE4	0.884		
Perceived Usefulness	BU1	0.654	0.821	0.541
	BU2	0.699		
	BU3	0.944		
	BU4	0.599		
Business Support	EB1	0.889	0.857	0.606
	EB2	0.895		
	EB3	0.672		
	EB4	0.616		
Cost Benefit	EC1	0.790	0.917	0.734
	EC2	0.898		
	EC3	0.891		
	EC4	0.842		
Knowledge and Awareness	EK1	0.907	0.924	0.753
	EK2	0.900		
	EK3	0.862		
	EK4	0.799		
Reputation	ER2	0.901	0.878	0.706
	ER3	0.845		
	ER4	0.769		
Attitude	FA1	0.584	0.848	0.531
	FA2	0.727		
	FA3	0.784		
	FA4	0.830		
	FA5	0.693		
Subjective Norms	GS1	0.787	0.841	0.570
	GS2	0.724		
	GS3	0.715		
	GS4	0.792		
Perceived Behavioural Control	HP1	0.947	0.946	0.854
	HP3	0.971		
	HP5	0.850		

Constructs	Items	Loading	Composite Reliability	AVE
Intention	IN1	0.704	0.831	0.554
	IN2	0.793		
	IN3	0.826		
	IN4	0.641		

Table 3 depicst the evaluation of discriminant validity by way of Fornell and Larcker (1981) criterion. As illustrated, the square root of AVE of each construct is bigger than the correlation estimates of the constructs. This implies that all constructs are distinctly different from one another, implying that each construct is unique and captures phenomena not represented by other constructs in the model (Hair et al., 2017).

Table 3: Fornell-Larcker Criteria for Main Constructs

	BE	BU	EB	EC	EK	ER	FA	GS	HP	IN
Perceived ease of use	**0.903**									
Perceived usefulness	0.520	**0.736**								
Business support	-0.160	-0.076	**0.778**							
Cost benefit	-0.134	-0.104	0.363	**0.856**						
Knowledge & awareness	-0.089	-0.035	0.429	0.313	**0.868**					
Reputation	0.135	0.128	0.192	0.045	0.050	**0.840**				
Attitude	-0.136	-0.141	0.194	0.484	0.331	-0.283	**0.728**			
Subjective norms	0.035	-0.028	0.245	0.457	0.106	0.250	0.067	**0.755**		
Perceived behavioural control	-0.044	0.031	0.104	0.116	0.050	-0.068	0.088	-0.111	**0.924**	
Intention	-0.075	-0.087	0.252	0.490	0.427	-0.034	0.451	0.283	-0.149	**0.745**

Structural Model

Collinearity issues need to be addressed first in the structural model. Table 4 presents the result of the collinearity test. The VIF value for each of the constructs is smaller than the offending value of 3.3 (Diamantopoulos and Siguaw, 2006), thus suggesting that there is no issue with collinearity in the study.

Table 4: Collinearity Assessment

	FA	**IN**
BE	**1.420**	
BU	**1.381**	
EB	**1.396**	
EC	**1.204**	
EK	**1.272**	
ER	**1.076**	
FA		**1.014**
GS		**1.019**
HP		**1.022**

Table 5 demonstrates the outcomes of path coefficient assessment using the bootstrapping procedure for each of the hypothesised relationships in the model. Not all proposed relationships are significant whereby based on the assessment of path coefficient, as shown in Table 5, only six hypotheses had t-value ≥ 1.645, thus significant at 0.05. The predictors of Knowledge and Awareness ($\beta = 0.210$, $p < 0.01$) and Cost Benefit ($\beta = 0.426$, $p < 0.01$) were positively related to Attitude, while Reputation ($\beta = -0.308$, $p < 0.01$) was negatively related to Attitude, which explained 37.0% of variances in Attitude. Thus, H1, H2, and H4 are supported.

Another three hypotheses had t-value ≥ 1.645, thus significant at 0.05. The predictors of Attitude ($\beta = 0.450$, $p < 0.01$) and SNs ($\beta = 0.235$, $p < 0.01$) were positively related to Intention, while PBC ($\beta = -0.162$, $p < 0.01$) was negatively related to Intention, which explained only 29.4% of variances in Intention. Thus, H7, H8, and H9 are supported

Table 5: Hypotheses Testing Results

		Std Beta	Std Error	t-value	p-values	Decision	R^2	f^2	Q^2	q^2
H1	**EK -> FA**	0.210	0.042	4.983	0.000	**Supported**	0.370	0.055	0.163	0.02
H2	**EC -> FA**	0.426	0.035	12.077	0.000	**Supported**		0.239		0.08
H3	**EB -> FA**	0.007	0.040	0.167	0.434	**Not Supported**		0.000		0.00
H4	**ER -> FA**	-0.308	0.041	7.598	0.000	**Supported**		0.140		0.05
H5	**BE -> FA**	0.012	0.045	0.264	0.396	**Not Supported**		0.000		0.00
H6	**BU -> FA**	-0.056	0.067	0.835	0.202	**Not Supported**		0.004		0.00
H7	**FA -> IN**	0.450	0.043	10.362	0.000	**Supported**	0.294	0.283	0.137	0.14
H8	**GS -> IN**	0.235	0.033	7.103	0.000	**Supported**		0.077		
H9	**HP -> IN**	-0.162	0.031	5.255	0.000	**Supported**		0.037		

Three hypotheses resulted in t-value ≤ 1.645, thus insignificant at 0.05. The predictors of Business Support (β = 0.007, p > 0.01), PEOU (β = 0.012, p > 0.01), and PU (β = -0.056, p > 0.01) were not related to Attitude. Thus, H3, H5, and H6 are not supported.

The R^2 value of 0.370 and 0.294 for Attitude and Intention, respectively, appeared to exceed the 0.26 value, as suggested by Cohen (1988), which signifies a substantial model. Next, the effect sizes (f^2) were assessed. As asserted by Sullivan and Fein (2012), "while a *p*-value can inform the reader if an effect exists, the *p*-value will not reveal the size of the effect. In reporting and interpreting studies, both the substantive significance (effect size) and statistical significance (*p*-value) are essential results to be reported". Hair et al., (2017) posited that the change in R^2 value should also be examined and reported. The method suggests assessing the R^2 change by testing if the omitted exogenous construct has a substantive impact on the endogenous construct. To measure the effect size, Cohen (1988) guideline was used. The values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively (Cohen, 1988).

Table 5 also displays that Attitude was closer to large effect (0.283) in producing R^2 for intention, while SNs (0.077) and PBC (0.037) exhibited a small effect in generating R^2 for

intention. The results indicate that Cost Benefit was closer to large effect (0.239) in producing R^2 for Attitude, whereas Knowledge and Awareness had a small effect (0.055) in producing R^2 for Attitude, and Reputation was closer to medium effect (0.140) in generating R^2 for Attitude. On the contrary, Business Support, PEOU, and PU exerted nil effect in producing R^2 for Attitude. The predictive relevance of the model was examined via blindfolding procedure. If the Q^2 value is larger than 0, the model has predictive relevance for certain endogenous constructs (Hair et al., 2017; Fornell and Cha, 1994). All the two Q^2 values for Attitude (Q^2 = 0.163) and Intention (Q^2 = 0.137) exceeded 0; indicating that the model has sufficient predictive relevance. Hair et al., (2017) stated that as a relative measure of predictive relevance, the values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium or large predictive relevance for certain endogenous construct. The results showed small q^2 effect size for Knowledge and Awareness (0.02), Cost Benefit (0.08), and Reputation (0.05) on Attitude. Attitude on Intention (0.14) was also close to medium q^2 effect size (Hair et al., 2017).

Mediation Effect

This research work tested the mediating roles of Attitude between salient belief factors, PEOU, and PU with intention to adopt SCF. The testing had been based on the indirect effect of the constructs on one and another. Numerous debates have been held to decide on the best methods to test the mediating effects, such as Baron and Kenny (1986) and Sobel's test approach. Preacher and Hayes (2004; 2008) and Hayes (2009) have criticised the "causal procedure" of Baron and Kenney, along with other scholars who claimed that direct effect need not be significant to test mediation (Shrout and Bolger, 2002; Zhao et al., 2010). Thus, the indirect effect matters more for mediation testing (Hayes and Rockwood, 2016). Another mediation method available is the "bootstrapping the indirect effect", as illustrated in Figure 3 (Preacher and Hayes, 2004; 2008).

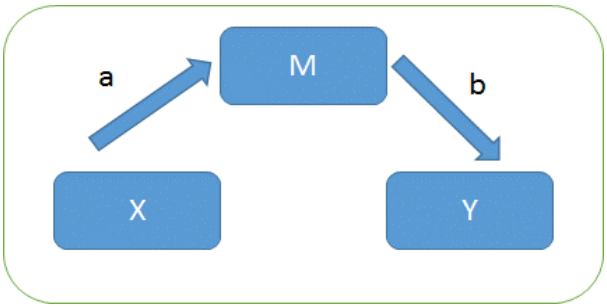


Figure 3 Bootstrapping the Indirect effect

This study applied the bootstrapping method due to its suitability with PLS-SEM, since nil assumption is required concerning the shape of the variable's distribution or the sampling distribution, thus could be used for the small sample size (Hair et al., 2017; Preacher and Hayes, 2008).

The bootstrapping analysis displayed that only three indirect effects were significant for H10, H11, and H13. The respective path coefficients and the t-values were β = 0.094, 0.192, and -0.139, as well as 4.070, 7.087, and 6.255, respectively. The respective indirect effects 95% Boot CI Bias Corrected: [LL = 0.057, UL = 0.133], [LL = 0.148, UL = 0.237], [LL = -0.177, UL = -0.104], did not straddle 0 in between; indicating the presence of mediation (Preacher and Hayes, 2004; 2008). Therefore, the mediation effects of Attitude with Knowledge and Awareness, Cost Benefit, and Reputation with intention seemed to be statistically significant. The outcomes of mediation analysis are presented in Table 6.

The path coefficient for H12 was β = 0.003 and its t-value = 0.166, which was not significant at t-values >1.96 (Hair et al., 2017). Thus, Attitude did not mediate the correlation between business support and intention to adopt SCF. The indirect effects at 95% Boot CI Bias Corrected: [LL = -0.024, UL = 0.035] exhibited that it did straddle 0 in between; indicating nil mediation. Hence, the mediation effect of Attitude was not statistically significant.

The bootstrapping analysis displayed that the indirect effect was insignificant for H14. The path coefficient for H14 was β = 0.005 and t-value = 0.270, which was not significant at t-value >1.96 (Hair et al., 2017). Hence, Attitude did not mediate the relationship between PEOU and intention to adopt SCF. The indirect effects at 95% Boot CI Bias Corrected: [LL = -0.030, UL = 0.035] displayed that it did straddle 0 in between; indicating nil mediation. It can be concluded that the mediation effect of Attitude was not statistically significant. The result of mediation analysis is presented in Table 6.

The bootstrapping analysis showed that the indirect effect was insignificant for H15. The path coefficient for H15 was β = -0.025 and t-value = 0.805, which was not significant at t-value >1.96 (Hair et al., 2017). Thus, Attitude did not mediate the relationship between PU and intention to adopt SCF. The indirect effects at 95% Boot CI Bias Corrected: [LL = -0.069, UL = 0.030] exerted that it did straddle 0 in between; indicating nil mediation. Hence, one can conclude that the mediation effect of Attitude was not statistically significant. The result of mediation analysis is given in Table 6.

Table 6: Hypotheses Testing on Mediation for H10, H11, H12, H13, H14 and H15

		Standard Beta	Standard Error	t-value	Confidence Interval (BC)		Decision
					LL	UL	
H10	**EK -> IN**	0.094	0.023	4.070	0.057	0.133	**Supported**
H11	**EC -> IN**	0.192	0.027	7.087	0.148	0.237	**Supported**
H12	**EB -> IN**	0.003	0.018	0.166	-0.024	0.035	**Not Supported**
H13	**ER -> IN**	-0.139	0.022	6.255	-0.177	-0.104	**Supported**
H14	**BE -> IN**	0.005	0.020	0.270	-0.030	0.035	**Not Supported**
H15	**BU -> IN**	-0.025	0.031	0.805	-0.069	0.030	**Not Supported**

Discussion and Conclusion

The results of Attitude, Subjective Norm and Perceived Behavioural Control on intention towards using SCF are significant. In addition, Attitude also has a significant mediating effect on the relationship between Knowledge and Awareness, Cost Benefit and Reputation and Adoption Intention. In general, TPB is useful in explaining the magnitude of Attitude, Subjective Norm and Perceived Behavioural Control in understanding the intention of SCF users towards using it (Jia et al., 2019; Ahmad et al., 2018; Jaffar and Musa, 2016). Attitude towards using SCF is found to have the significant result as compared to Subjective Norm and Perceived Behavioural Control, highlighting the significance of users' beliefs, feelings and other psychological avenues about SCF.

On the other hand, although SCF is not normally use by manufacturers in Malaysia, Attitude is found to mediate only the relationship between Knowledge and Awareness, Cost Benefit and Reputation and Adoption Intention. This shows the significance of recommendations and favourable word-of-mouth from the significant ones, such as members of the family and colleagues, to make people willing to try and use SCF. This in line to earlier findings with regards to the collectivistic culture in Malaysia (Khalek and Ismail, 2015; Voon et al., 2011). Unlike countries with individualistic cultures where people perceive themselves as autonomous and independent of the group, Malaysians tend to conform to the adoption choices of significant others. As such, fear or avoidance of SCF does not seem to affect nor alter their intention to adopt SCF. However, when given choices, they may not choose to use it. Given the fact that manufacturing industries are most populous industry group in Malaysia, one would have expected that SCF is well known and well researched. This could well suggest the lack of business model and marketing effort to promote SCF and to make it more readily available to Malaysian users. Consequently, it attracts relatively less attention in business and research.

This study has established the growth of TPB and TAM by using Attitude as a mediator in the model to give additional theoretical explanation to SCF Adoption Intention (Ahmad et al.,

2018; Jaffar and Musa, 2016). Nevertheless, there are a few caveats which require continuous efforts to validate and further extend the use of the model. First, the sample is largely made up by manufacturing firms in Malaysia who are believed to be more daring to try new things, including new financing products regardless of unfamiliarity (de Run and Ting, 2013; Ting and de Run, 2015). Second and more importantly, the dearth of literature and empirical studies on SCF in Malaysia might have actually pointed to the potential limitation in using only quantitative questionnaire in the study. Since salient beliefs are the antecedents in TPB (Ajzen, 1991), knowing users' specific beliefs about SCF would have given a more detailed and comprehensive understanding of Adoption Intention and the mediating effect of Attitude.

Therefore, the current groundwork study gives basics for further investigation to explore salient beliefs about SCF and other financing options using qualitative and mixed method approaches. In addition, salient beliefs elicited through qualitative methods could be incorporated into quantitative study to give more insights to the investigation. Personal, psychological and societal factors related to behaviours could also be included in the model to enhance explanation on how these variables would eventually lead to actual behaviour to use SCF. Taking into account the insufficiencies in SCF literature, future research direction might include extension of the conceptual framework to take into account: SCF instruments as a moderator between working capital elements such as CCC, PPP, ICP and ACP that can enhance organisation performance. This would add knowledge to past literature on SCF adoption, thus contributing novelty and addition of knowledge to user behaviour, manufacturing industry, and Malaysian economy.

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