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Factors Affecting Consumer Intention to Adopt M-commerce

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A B S T R A C T

The. Mobility has created a new path that drives innovation. The advancement of smartphones, tablets and other handheld devices coupled with increasing broadband network access have innovated many business opportunities in the m-commerce context. To exploit these market opportunities, existing and potential businesses attempt to capitalize on mobile channels to grow in the respective industries. Sri Lanka is not an exception in facing such exponential developments in m-commerce. Though the mobile and Internet penetration rate were high in Sri Lanka, it was identified that the adoption rate of m-commerce was low. Therefore, the aim of the current study was to identify the factors affecting consumer intention to adopt m-commerce. For the current study, a model was developed by integrating the Technology Acceptance Model and Theory of Planned Behaviour while adding another variable, Trust in m-commerce. An online survey questionnaire was adopted as the data collection instrument. Snowball sampling and convenience sampling methods were used to obtain 554 responses from customers. Model testing revealed that Perceived Ease of Use, Perceived Usefulness, Attitude, Perceived Behavioural Control and Trust have a significant effect on consumer intention to adopt m-commerce. Trust in m-commerce was affected by Perceived Usefulness, Subjective Norm, Attitude and Perceived Behavioural Control. Among these factors, Perceived Usefulness had the highest influence. Moreover, trust partially mediates the influence of Perceived Usefulness on the intention to adopt. The mediating effects of Perceived Ease of Use and Trust in m-commerce were also discovered in this study.

Keywords: M-commerce adoption, Technology acceptance model, Theory of planned behaviour, Trust in m-commerce

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1. Introduction

M-commerce has created massive growth in global business by paving paths for many business entrepreneurs to start and run their businesses (Wijesooriya & Sritharan, 2018). Researchers have already begun to analyse the new windows crafted by m-commerce technology for sellers, customers and especially marketers (Laudon & Laudon, 2016). Many types of m-commerce services, such as m-tickets, m-travelling, purchasing food, mobile shopping, mobile health, mobile agriculture, mobile advertising, mobile education, mobile wallet, purchasing movies, songs or games, mobile banking and mobile brokerage services are offered by the companies at present (Rizky et al., 2017). M-commerce is perceived as the next era of e-commerce as it fulfils customers' desires in a convenient way using wireless technology which means that all the functions of traditional e-commerce are provided via a smartphone or any hand-held device.

The infrastructure for m-commerce development in Sri Lanka is already in place. Mobile telephone penetration rate of around hundred and fifty percent shows that people have started using smartphones which has created another platform for businesses to capture more market share (CBSL Annual report, 2018). It has paved the way for new methods like cashless transactions, including m-banking and m-wallets. Central Bank of Sri Lanka reported that the usage of credit cards by customers to buy products online increased in 2017. 1,515,299 numbers of credit cards were in use and among these 94% of the credit cards were used for global commerce transactions while the balances were used for local transactions. This shows that Sri Lankan consumers had started to use more computers and the internet. As far as Sri Lanka is concerned, a very few studies have been conducted on the m-commerce context. Wijesooriya & Sritharan (2018) stated that even though the Internet penetration rate was increasing in Sri Lanka, the adoption of m-commerce was not sufficient. Thus, there is an empirical research gap in the Sri Lankan context with regard to the intention to adopt m-commerce.

1.2. Research problem

Following the e-commerce era, m-commerce is perceived as the major driving force of future businesses. Business functions are performed using several applications developed by m-commerce vendors. Some examples of these business applications are mobile advertising, mobile shopping, mobile banking, mobile movies, mobile ticketing and mobile video broadcasting (Tarhini et al., 2019). However, all these applications are used at their full potential using smartphones in developed countries while smartphones are mostly used for communication purposes in developing countries (Rahman & Sloan, 2017). Although there is a very high potential for m-commerce businesses, when compared to developed countries such as Japan and South Korea, m-commerce in Sri Lanka is still at its infancy stage (Wijesooriya & Sritharan, 2018).

Even though the mobile penetration rate was around 150 per cent in 2018, mobile-based payments, as a percentage of total retail payments were very low compared to the other countries (CBSL Annual report, 2018). World Trade Organization (2013) reported that despite the increased mobile penetration rates and high growth of m-commerce, the m-commerce adoption rate was lower than expected in developing countries. Studies in Sri Lanka reveal that the adoption or use of m-banking by customers has been less than 1%. This has created much worry among the banks offering m-banking services and questions have risen if these banks should invest such a huge amount of money in introducing new technology-based services to customers. As Sri Lanka is a developing country, it is of vital importance to identify the key factors influencing customers' intention to adopt m-commerce.

Department of Census and Statistics (2019) reported the lowest computer and digital literacy rates of 19.6% and 16% in the Northern and Eastern Provinces in Sri Lanka. Nawas & Yamin (2018) studied Sri Lankan customers' behavioural intention to use mobile banking with special reference to Trincomalee, Ampara and Jaffna in addition to Colombo and Kandy. Ayoobkhan (2016) investigated the intention towards online shopping and found that the level was low in eastern parts of Sri Lanka. Therefore, a preliminary study was conducted to understand the usage level of m-commerce in the two selected provinces. It was found from the preliminary study that the customers from the Northern and Eastern Provinces had a low level of m-commerce usage. A significant empirical research gap was identified in the literature because such research had not been conducted yet, in the Northern and Eastern Provinces, in

terms of exploring the factors affecting consumer intention to adopt m-commerce. Further, Sujatha & Shivany (2018) added that many research on this topic has been conducted in the southern part of Sri Lanka. Thus, the research problem of this study was to identify the factors affecting consumer intention to adopt m-commerce in the Northern and Eastern Provinces.

2. Review of the relevant literature

Different frameworks were developed to describe the impact of different factors on technology acceptance. An in-depth analysis of previous studies revealed that the Technology Acceptance Model (TAM) (Davis, 1989), Theory of Planned Behaviour (TPB) (Ajzen, 1991) and UTAUT Theory (DOI) (Venkatesh et al., (2003) are the most commonly used models or theories to explain the consumer acceptance of technologies (Sharma, 2015). TPB includes not only technological factors but also individual and social factors (Khalifa & Shen, 2008). TAM has been used in many technology adoption types of research. However, Mathieson et al., (2001) argued that it does not include the factors that may restrict an individual from adopting new technology. On the other hand, TPB has two variables, namely, SN and PBC to explain the social and individual characteristics of the user. Even though TPB does not have the strengths of TAM, the total variance may be more when combining TAM with TPB because system-specific, individual and social characteristics will be considered to test the behavioural intention to adopt a technology (Lai, 2017).

Many researchers have provided evidence for the impact of trust on several outcomes such as behavioural intention to adopt a technology, continuance intention and repurchase intention (Kim et al., 2009; Yang et al., 2015). Studies have also proved that both Perceived Ease of Use (PEOU) and PU have an effect on trust (Awad & Ragowsky, 2008). Moreover, trust was merged with TAM model mostly in e-business-related studies (Gefen et al., 2003). Some authors have included trust in TPB to increase the variance explained by the research model in an e-government context (Hung et al., 2013). At the same time, Qijun et al., (2017) have stated that not many studies integrated trust with both TAM and TPB.

3. Methods

3.1. Research model and hypotheses

TAM has been used in many technology adoption types of research. However, Mathieson et al. (2001) argued that it is only information system-specific and it ignores the individual and social characteristics of a user. On the other hand, TPB has two variables, namely, SN and PBC to explain the social and individual characteristics of the user. Even though TPB does not have the strengths of TAM, the total variance may be more when combining TAM with TPB because system-specific, individual and social characteristics will be considered to test the behavioural intention to adopt a technology (Mathieson et al., 2001). Further, Gao et al., (2015) indicated that when customers trust m-commerce service providers, they would like to adopt m-commerce because they think that any sort of opportunistic behaviour will not be exhibited by that provider. Many studies have proved the significant influence of trust on the intention to adopt a new technology when it was added with TAM and TPB. In order to gain a better understanding of the adoption of m-commerce, this study focused on integrating trust with TAM and TPB by including all the constructs from the two models.

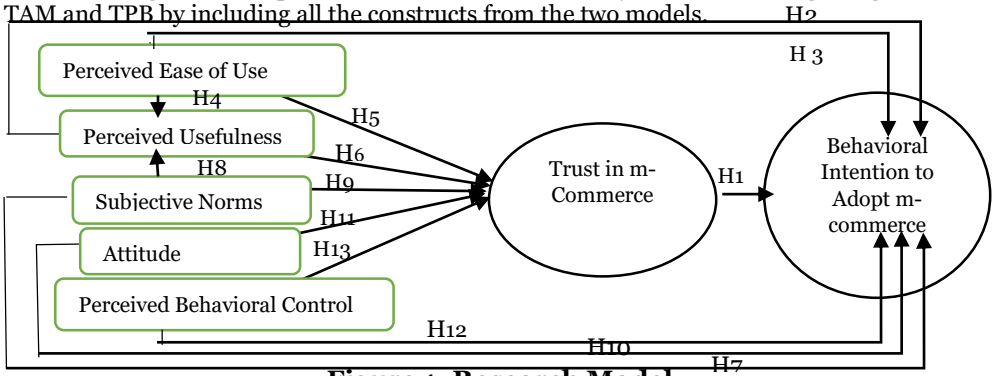

Figure 1: Research Model

Trust acts as the mediating variable between TAM and TPB variables and the intention to adopt m-commerce. Thus, the conceptual model as shown in Figure 1 was formulated based on the review of the literature depicting the relationships between PU, PEOU, attitudes, SN, PBC, trust and behavioural intention to adopt M-Commerce.

Trust in M-commerce is defined as the expectations of the customers that the intended transactions will take place between them and the sellers without any deviation from assured expectations (Chong, 2013). Nawaz & Yamin (2018) found that perceived trust was the strongest predictor of behavioural intention to use mobile banking. Elwalda et al., (2016) studied about perceived derived attributes of online customer reviews and found a significant impact of trust on purchase intention. Thus, hypothesis H_1 is proposed:

***H1*:** Trust in m-commerce influences the behavioural intention to adopt m-commerce

Perceived usefulness (PU) is defined as the degree to which an individual believes that using technology will improve his/her performance in fulfilling his/her expectations in future (Nawaz & Yamin, 2018). Sun & Chi (2018) proved the significant impact of PU on the intention to adopt m-commerce. Choi (2018) revealed that PU had a direct influence on smartphone-based m-commerce usage. Yadav et al., (2016) proved the significant influence of PU on mobile commerce adoption. Perceived ease of use (PEOU) is defined as the degree to which the user expects the system to be user-friendly (Nawaz & Yamin, 2018). Many research found PEOU as an essential predictor of adoption-intention of different technologies such as e-government (Hung at el., 2013), m-banking (Sharma et al., 2015), m-learning (Tarhini et al., 2015), and e-commerce (Cheema et al., 2013). Thus, the following hypotheses are proposed:

H2: Perceived Usefulness influences behavioural intention to adopt m-commerce

***H3*:** Perceived Ease of Use influences behavioural intention to adopt m-commerce

Zhang et al., (2012) also revealed that PEOU has an indirect effect on the intention to use via PU. Sun & Chi (2018) found the influence of PEOU on PU when they studied the key factors affecting the adoption of apparel mobile commerce in China. Choi (2018) has also proved the indirect impact of PEOU on the intention to use m-commerce via PU. In addition to that, previous studies have proved the influence of PEOU on trust in m-commerce and e-commerce (Sun & Chi, 2018; Sarkar et al., 2020; Zhou, 2018). Similarly, several studies confirmed that PU is a significant factor in establishing an initial Trust in the customer's mind which will, consequently, influence online purchase intention (Sarkar et al., 2020; Elwalda et al., 2016). Thus, the following hypotheses are proposed:

H4: Perceived Ease of Use influences Perceived Usefulness of m-commerce

H5: Perceived Ease of Use influences the Trust in m-commerce

H6: Perceived Usefulness influences Trust in m-commerce

Subjective Norm (SN) is defined as an individual's perception that most of the people who are important to him/her think that he/she should or should not shop using the mobile phone (Sun & Chi, 2018). A significant positive relationship between SN and behavioural intention has been proved in much research in the m-commerce context (Sun & Chi, 2018; Rizky et al., 2017). Many scholars have found that SN is a predictor of both behavioural intention to adopt and PU of m-commerce (Sun & Chi, 2018; Rizky et al., 2017). Chaouali et al., (2016) found SN as a determinant of trust. Further, Hitosugi (2011) also found a significant impact of SN on trust. Thus, the following hypotheses are proposed:

H7: Subjective Norm influences behavioural intention to adopt m-commerce

H8: Subjective Norm influences Perceived Usefulness of m-commerce

H9: Subjective Norm influences Trust in m-commerce

Attitude is defined as a favourable or unfavourable evaluative reaction toward action or behaviour which is influenced by the belief in the consequence of that behaviour (Sarkar et al., 2020). Zuhal (2017) found that attitude has a significant influence on the intention to adopt e-learning. Similarly, Sujeet & Jyoti (2013) proved that attitude is one of the strongest determinants of intention to use. Lee et al. (2017) have proved that trust in social commerce is influenced by attitudes, biases, and past experiences of customers. Pechar et al., (2018) and

Singh et al., (2017) have also found a significant effect of attitude on trust. Thus, the following hypotheses are proposed:

H10: Consumers' attitudes influence behavioural intention to adopt m-commerce

H11: Attitudes towards m-commerce influence trust in m-commerce

Perceived Behavioural Control (PBC) is defined as the level of control foreseen by a consumer regarding the usage of a technology which results from his/her internal strengths, the ability to exploit the external opportunities and to neutralize external threats (Elwalda et al., 2016). Many research has already proved the significant positive influence of PBC on the intention to use or adopt m-commerce (Rana et al., 2015). Kamal et al., (2015) mentioned that PBC is important to develop trust while making decisions. Sultan et al., (2019) found a significant mediation of trust between PBC and the intention to adopt. Thus, the following hypotheses are proposed:

H12: Perceived behavioural control influences behavioural intention to adopt m-commerce

H13: Perceived behavioural control influences trust in m-commerce

4.2. Population and sample

The population that was considered, was all the working adults and university students in the North and Eastern Province who did not engage in m-commerce transactions. A preliminary study was conducted to understand the usage level of m-commerce in the selected two provinces. It was found from the preliminary study that the customers from the Northern and Eastern provinces had a lower level of m-commerce usage. Therefore, the study selected the population in these two provinces. The details of each sample were not available and therefore the non-probability sampling design was adopted. Under this design, convenience and snowballing sampling methods were used to select samples for this study because it is a convenient and speedy way of collecting data. As it was difficult to find out the usage behaviour individually, the snowballing method was adopted in which respondents shall point out the other respondents who can be suitable for the sample profile. With a confidence level of 95% and a margin of error of 5%, the intended sample size for this study was 384 working adults and university students who had handheld devices such as smartphones or tablets with an Internet connection but who did not have experience with m-commerce.

4.3. Data collection

An online questionnaire was constructed based on the literature. It consisted of eight sections designed to gather data including demographic information. The 7-point Likert scale is widely used for measuring attitudes in survey-type research (Qijun et al., 2017). Also, it has been widely used in e-commerce and m-commerce studies (Pavlou, 2003; Ghazali et al., 2018; Choi, 2018). Thus, 7-point Likert scale was used in this study. The link to the questionnaire was mailed to 250 customers in the Northern and Eastern Province (from the known networks) and the researcher requested the respondents to share the questionnaire link via mail and social media networks with their networks in Northern and Eastern provinces. Basic information about email address, possession of smartphone and experience in e-commerce or m-commerce were collected. Based on the responses, the link to the online survey was mailed to 750 respondents who were fit for the study sample.

4.4. Data analysis

Two data analysis software applications were used in this study; Smart PLS 3 and Statistical Package for the Social Sciences (SPSS 22.0). Main data analysis was conducted using the structural equation modelling using the Partial Least Squares (PLS-SEM) technique. The reliability and validity of the model were established using measurement model analysis. The expectation of latent variable (LV) variance and composite reliability was conducted to test the item reliability and internal consistency reliability, respectively. On the other hand, item reliability and average variance extracted (AVE) were used to test the convergent validity whereas patterns of indicators' outer loadings and Heterotrait-Monotrait' (HTMT Test) was used to test the discriminant validity. After testing the measurement model analysis, structural model analysis was performed to examine the explanatory power of the model. R^2, f^2 and Q^2 were used in this research to test the predictive validity of the model. Examination of the

statistical significance of path coefficients was carried out by the bootstrapping resampling technique which is available in SmartPLS software. The mediation effect was tested with SmartPLS using the application of bootstrapping.

5. Results and discussion

The questionnaire was emailed to seven hundred and fifty respondents. Out of them, five hundred and fifty-four questionnaires were returned by the respondents, indicating a response rate of 74%. 48% of the respondents were male and 68% of the respondents were single. The majority of the respondents (84%) are between 18 to 34 years of age. The main study analysis was conducted using the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique using Smart PLS 3. Two sub-models were tested in PLS-SEM: the Measurement model and the Structural model.

5.1. Measurement model results

The reliability and validity of the model were analysed in measurement model analysis. Item reliability reflects how much the item is contributing to the total score variance. al., 2000). Factor loadings of the items given in PLS usually explain item reliability. The threshold value considered for this study was 0.5 (Hair et al., 2010). Respectively, the outer loadings of all the indicators were more than 0.5 and hence the indicators were reliable. Internal consistency reliability ensures the stability and consistency of the research instrument and its measures. Cronbach's Alpha (α) and composite reliability were used to determine the internal consistency of the variables. Table 1 shows that both Cronbach's α and composite reliability values were greater than the threshold value of 0.7 (Hair et al., 2006) which indicated that the variables were reliable.

Table 1: Internal Consistency Reliability and Convergent Validity of the Measures

Constructs	Composite Reliability	Cronbach Alpha (α)	AVE
Perceived ease of use	0.931	0.910	0.693
Perceived usefulness	0.929	0.905	0.725
Subjective norm	0.896	0.861	0.590
Attitude	0.911	0.877	0.672
Perceived behavioural control	0.925	0.899	0.712
Trust in m-commerce	0.973	0.969	0.766
Intention to adopt m-commerce	0.966	0.958	0.825

A value of more than 0.5 suggests convergent validity. It indicates that each LV has explained more than 50 per cent of their respective indicator's variance (Hair et al., 2012). Convergent validity was tested using the average variance extracted (AVE). Table 1 showed that all AVE values were above 0.5. This interpreted that, on average, 50% of the respective indicator's variance was explained by each latent variable. As a result, the convergent validity was confirmed. Discriminant validity of the constructs was assessed using two approaches; examination of the pattern of indicators' outer loadings with cross-loadings on other indicators and the HTMT Test. Examination of the pattern of indicators' outer loadings revealed that the outer loadings of each indicator were higher than the cross-loadings with all other constructs, suggesting discriminant validity. Table 2 shows the results of the HTMT Test.

Table 2: Results of HTMT Test

	Attitude	BI	PBC	PEOU	PU	SN	Trust
Attitude							

BI	0.831					
PBC	0.834	0.819				
PEOU	0.848	0.835	0.814			
PU	0.765	0.842	0.775	0.849		
SN	0.764	0.662	0.672	0.688	0.777	
Trust	0.831	0.742	0.765	0.762	0.813	0.713

According to Table 2, all constructs had correlation values less than the threshold of 0.85 (Henseler et al., 2015), and thus discriminant validity was confirmed.

5.2. Structural model results

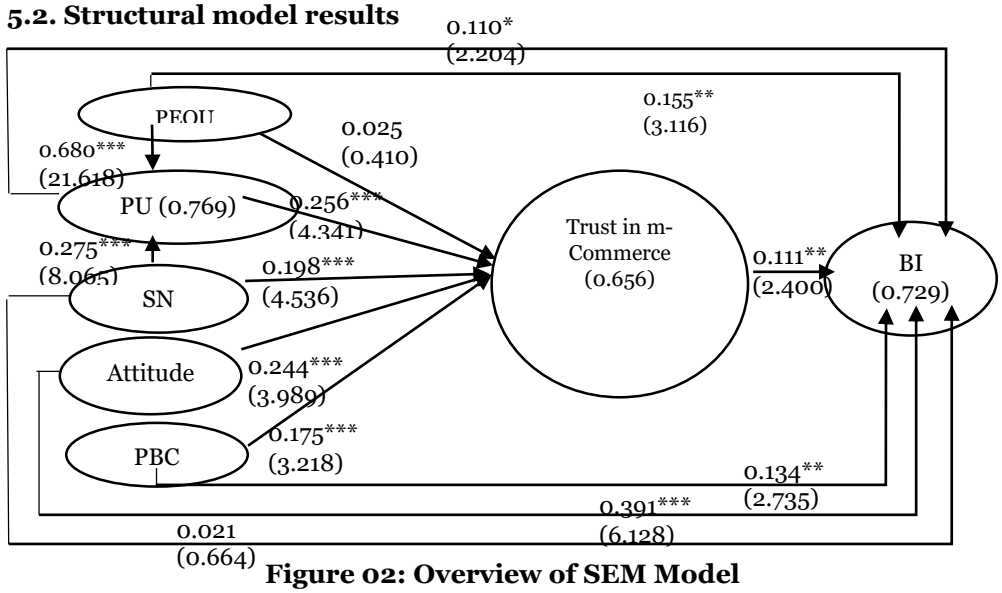

Figure 02: Overview of SEM Model

The main criterion to evaluate a structural model is the total variance explained (R^2 of the dependent variable). As shown in Figure 2, 72.9% of the total variance in behavioural intention to adopt m-commerce was explained by PEOU, PU, SN, Attitude, PBC and Trust. PEOU and SN jointly explained 76.9 per cent of the PU. 65.6% of the variance in trust in m-commerce was explained by PEOU, PU, SN, Attitude and PBC. In addition to the variance explained (R^2), the predictive validity of a model can be explained by the effect size (f^2) and the predictive relevance (Q^2).

The predictive relevance of the structural model was evaluated by the Q^2 test using the blindfolding procedure available in Smart PLS software. Stone–Geisser's Q^2 for the endogenous constructs were 0.597, 0.553 and 0.498 for BI, PU and Trust in m-commerce, respectively, indicating acceptable predictive relevance.

5.3. Hypotheses testing

Statistical significance of the path coefficients was tested using the bootstrapping resampling technique in SmartPLS. The summary of the hypotheses test is presented in Table 3. Hypotheses H_1, H_2, H_3, H_{10} and H_{12} were supported. These findings were consistent with existing literature. The direct effect of trust on intention to adopt was previously found in many studies (Elwalda et al., 2016; Nawaz & Yamin, 2018; Ghazali et al, 2018). Previous research found the positive influence of PU on the intention to adopt new technology such as m-commerce, m-shopping and e-commerce (Ghazali et al., 2018; Elwalda et al., 2016; Qijun et al., 2017; Nawaz & Yamin, 2018; Sun & Chi, 2018). Nawaz & Yamin (2018), Sun & Chi (2018), and Ghazali et al., (2018) proved the impact of PEOU on the intention to adopt new technology. Qijun et al., (2017) stated that when customers like the idea of using m-commerce applications or m-commerce websites for accessing m-commerce services, they will be more likely to adopt

m-commerce. Ghazali et al., (2018) indicated that when the customers think that using m-commerce website would be a pleasant experience and when they feel positive about shopping using mobile devices, they will be more likely to adopt m-commerce. Literature has stated that when customers have control over using m-commerce applications or m-commerce websites and the knowledge and ability to use m-commerce websites, it will increase the intention to adopt m-commerce (Elwalda et al., 2016; Qijun et al., 2017; Ghazali et al., 2018).

PU had the strongest positive influence on trust in m-commerce, followed by attitude, SN, and PBC. Thus, H_6, H_9, H_{11}, and H_{13} were supported. These findings of the study were consistent with the existing literature. Literature has revealed that customers who perceived the usefulness of m-commerce developed more trust in m-commerce (Elwalda et al., 2016). A significant positive influence of SN on trust was identified by Chaouali et al., (2016) and Hitosugi (2011). Literature has stated that when customers have a positive attitude towards m-commerce, it increases trust in m-commerce (Lee et al., 2017; Pechar et al., 2018; Singh et al., 2017). Kamal et al. (2015) indicated that PBC which was backed by self-efficacy and facilitating conditions had an influence on trust which in turn affected the adoption of cloud technology.

However, there was no relationship between PEOU and trust in m-commerce, thus H_5 was not supported. Existing literature was not consistent with the study findings. Literature has explained that there was a significant effect of PEOU on trust (Elwalda et al., 2016; Sun & Chi, 2018; Sarkar et al., 2020). This could be due to the fact that the influence of PEOU on trust was fully mediated by PU. PEOU indirectly influenced trust towards its impact on PU. Consumers who perceived m-commerce as being easy to use had also perceived its usefulness which in turn increased trust in m-commerce. PEOU alone did not impact trust and it could be because nowadays, many consumers are used to operate smartphones due to the increased rate of mobile phone penetration (CBSL, 2018). As they generally operate smartphones without difficulties, this could be the reason that PEOU has not directly impacted trust.

Similarly, there was no relationship between SN and BI, thus H_7 was not supported. There are mixed findings in the literature with regard to this hypothesis. Some authors stated that there was a significant influence of SN on the intention to adopt m-commerce (Qijun et al., 2017; Sun & Chi, 2018). On the other hand, other authors proved that SN did not have a significant influence on the intention to adopt m-commerce (Ghazali et al., 2018). They stated that consumers nowadays have a tendency not to believe others' recommendations and reviews due to the overloading of information. They further clarified that the details of the same product or service are advertised or shown in different ways on different platforms. The tendency to believe these may be low because of this issue. As a result, consumers may like to search on their own and compare the prices, vendors and products before making a purchase decision rather than approaching their community, friends, relatives and neighbours. Thus, the findings of this study were consistent with the study of Ghazali et al., (2018).

Table 3: Path Coefficients

Hypothesis No.	Path	Path Coefficient (β)	P-values	Decision
H_1	Trust → BI	0.111	0.016	Supported
H_2	PU → BI	0.110	0.028	Supported
H_3	PEOU → BI	0.155	0.002	Supported
H_4	PEOU → PU	0.680	0.000	Supported
H_5	PEOU → Trust	0.025	0.682	Not supported
H_6	PU → Trust	0.256	0.000	Supported
H_7	SN → BI	0.021	0.506	Not supported
H_8	SN → PU	0.275	0.000	Supported
H_9	SN → Trust	0.198	0.000	Supported
H_{10}	Attitude → BI	0.391	0.000	Supported
H_{11}	Attitude → Trust	0.244	0.000	Supported
H_{12}	PBC → BI	0.134	0.006	Supported
H_{13}	PBC → Trust	0.175	0.001	Supported

Note: BI, behavioural intention to adopt m-commerce; PU, perceived usefulness; PEOU, perceived ease of use; SN, subjective norm; PBC, perceived behavioural control

On the other hand, PEOU (β=0.680, p<0.001) and SN (β=0.275, p<0.001) had a positive influence on SU, thus, H_4 and H_8 were supported. These findings were consistent with the existing literature. Literature has stated that when consumers perceived m-commerce technology as being easy to use and free of mental effort, it created positive ideas about the usefulness of the system. This in turn increased the intention to adopt m-commerce (Ghazali et al., 2018; Qijun et al., 2017; Sun & Chi, 2018). The literature stated that when the important people (community, friends, relatives, colleagues and neighbours) use m-commerce and spread positive word-of-mouth about the usefulness of m-commerce, the consumers perceive it to be useful for them as well (Ghazali et al., 2018; Sun & Chi, 2018). As a result, they may perceive m-commerce as useful for them and it may develop a stronger desire in customers to adopt it. Therefore, it can be stated that SN indirectly stimulated the intention to adopt m-commerce via PU.

5.4. Results of the mediation analysis

The mediation effect was tested with SmartPLS using the application of bootstrapping. The size of such an indirect effect or the strength of the mediation can be determined by the variance accounted for (VAF). Decision guidelines with respect to VAF were proposed by Hair et al. (2014). They labelled an effect size above 0.80 as full mediation, between 0.20 and 0.80 as partial mediation and below 0.20 as no mediation. The mediating effect of trust is presented in Table 4. According to Table 4, Trust in m-commerce partially mediated the relationship between PU and BI, but it did not mediate the relationship between attitude and BI, and PBC and BI. PEOU did not have a significant influence on trust in m-commerce and hence it was not included in Table 4. This finding is consistent with Sarkar et al., (2020) in which the researchers stated that trust in m-commerce or e-commerce plays a mediating factor that mediates the relationship between several independent factors and behavioural intention to adopt m-commerce or e-commerce. The finding goes also with Athapaththu & Kulathunga (2018) and Li et al., (2007) who revealed that trust mediated the influence of PU, PEOU and website content on online purchase intention. However, in this study, Trust did not mediate the influence of PEOU because PEOU did not have a significant influence on trust in m-commerce. At the same time, the mediation effect of trust between PBC and intention to adopt m-commerce was not proved in this study. This finding is against Sultan et al. (2019) who found a significant mediation of trust between PBC and intention to adopt.

Table 4: Mediation Effect of Trust

Relationship	TE	IE	DE	VAF	Mediation
PU → BI	0.139**	0.029*	0.11*	0.209	Partial Mediation
Attitude → BI	0.418***	0.027*	0.391***	0.065	No Mediation
PBC → BI	0.154**	0.019	0.135**	0.123	No Mediation

Note: TE, total effect; IE, indirect effect; DE, direct effect; VAF, variance accounted for; PU, perceived usefulness; BI, behavioural intention to adopt m-commerce; PBC, perceived behavioural control

6. Conclusion

In Sri Lanka, especially in the Northern and Eastern Provinces, m-commerce is at its infant stage. Even though the mobile penetration rate was around 150 per cent in 2018, mobile-based payments as a percentage of total retail payments were very low compared to the other countries. This was recognized as the research problem and a study was conducted to find out the factors affecting consumer intention to adopt m-commerce in the Northern and Eastern Provinces. PEOU, PU, Attitude, PBC and Trust in m-commerce affected consumer intention to adopt m-commerce. Among these factors, attitude towards m-commerce was the highest influencing factor. SN did not directly influence the intention to adopt. However, an indirect effect of SN on intention to adopt via PU and Trust was identified. It was explored that trust

partially mediates the influence of PU on the intention to adopt, but it does not mediate the influences of attitude and PBC on the intention to adopt.

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