
The Mediating Role of Commitment in The Relationship Between Mobile Service Quality and Mobile Shopping Customer Loyalty in Malaysia

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Abstract - Online shopping is becoming increasingly important in the current era, rendering comprehension of consumer online shopping habits crucial. This notion rings true in the context of users and companies alike, thereby emerging as a big concern for e-commerce managers and researchers. One may assume that only by understanding the factors influencing consumer buying intentions for fashion items online will companies be better-positioned for meeting consumer needs. In this analysis, the relationship between consumer online purchasing intentions and selected factors was investigated, specifically consumer innovativeness, fashion innovativeness, and fashion involvement. Quantitative research was implemented in the process, involving fashion online shoppers in Malaysia as the respondents after being selected via quota sampling from the ten most popular fashion shopping websites in Malaysia. The statistical method of Partial Least Square – Structural Equation Modelling (PLS-SEM) was then employed for the proposed model testing. The findings subsequently revealed the positive effects of consumer innovativeness, and fashion involvement on online purchase intention, whereas any significant relationship between the variable with fashion innovativeness was absent. However, this analysis was conducted in Malaysia; therefore, the results could be different if tested in other countries. Hence, similar studies related to fashion online purchase intention should be replicated in other Asian countries in the future.

Keywords: consumers, fashion, innovativeness, online shopping, online purchase intention

1. Introduction

Since the emergence of the Internet as the main business medium, the world of commerce has changed dramatically in recent years. Today's corporate world reveals the

quick and broad evolution of electronic trading, wherein e-commerce is fundamentally conceptualised by it being electronically-performed on the Internet (Kotler & Keller, 2012). As such, a key point of interest for e-commerce executives and researchers is the comprehension of internet buying preferences for customers and companies alike. Such understanding of factors influencing consumer buying intention for fashion items online will undoubtedly aid companies in meeting the needs of such group.

The Sun Daily (2017) has noted active online shopping carried out by Malaysians despite the sluggish economy, whereby an Asian online payment service known as iPay88 Sdn. Bhd. registered more than 38.2 million internet transactions in 2016. Such numbers show that e-commerce is receiving widespread acceptance in the country. Because online shopping is still in its advancement in Malaysia, little information is available pertaining to consumer attitude to the activity and the variables impacting their intention to perform the act in its current environment. Regardless, rapidly-changing shopping behaviour in the online environment necessitates fashion retailers to consistently evaluate their marketing, communication, and social media strategies in response to fluctuations of consumer perceptions, motivations, and behaviour (Rahman et al., 2014).

Thus, this study is a timely solution for online retailers in the bid to predict consumer behaviour, motivation, and the ways in which their needs and wishes could be fulfilled. It denotes the first step towards achieving a sound comprehension of consumer behaviour towards online purchase intention. In particular, the current work aims to investigate how factors such as fashion innovativeness, consumer innovativeness, and fashion involvement relate to the online purchase intention held by consumers. According to Rahman et al. (2014), the selection of these elements is driven by an obvious purpose, namely due to fashion clothing's role as a central part of lifestyle and the subsequent search for innovation and individuality in individual clothing. Similarly, people generally favour persons that follow a new trend and style, rendering an examination of such factors essential to obtain noticeable results and findings.

Generally, innovation poses a strong effect on the buyer decision for purchase the latest fashionable items (Rahman et al., 2014), as well as most likely to influence their future purchases (Ha & Stoel, 2004). Therefore, identifying the innovators is considered a rational way of developing marketing strategies. However, Goldsmith (2000) has generated a negative association between fashion creativity and decision-making in online shopping, driving the fascination for carrying out the study (Rodriguez & Fernandez, 2016). Accordingly, fashion innovativeness is deemed a compatible determinant for further investigation of online purchase intention. Furthermore, Rahman et al. (2014) have highlighted that understanding the customer procurement behaviours and building better marketing techniques render an assessment of participation patterns highly critical. While experts believe that fashion transactions are critical for buyers, little effort has been expended into their engagement in fashion.

Thus, the current research would aid retailers and academicians in understanding the relationship between fashion involvement and online purchase intention. It is critical for retailers, in particular, to focus on the reason behind consumer behaviour as duly observed and the way such behaviour can be influenced by them. Customers have always been highly important to retailers; however, the growth of e-commerce and digital media may seemingly overwhelm retailers due to the vast amount of consumer data. This entails beyond what customers have bought or spent, but also what they think and feel and how they live their lives. Thus, online retailers need to consider the determinants of consumers for their internet shopping purposes accordingly.

2. Literature Review

2.1 Customer Loyalty

The significance of customer loyalty has been recognised in the marketing literature for at least three decades (Lin & Wang, 2006). Primarily, customer loyalty is defined as a measuring behaviour which measures repurchase intention, frequency of purchase, repeat purchase behaviour, and other shopping behaviour aspects of a customer (Naami, 2017). Basically, there are multiple definitions posited on customer loyalty in the context of m-shopping. Lin & Wang (2006) defined customer loyalty as “a customer’s favourable attitude towards a mobile website, which results in repeat purchasing behaviour”. Meanwhile, Lee & Wong (2016) defined customer loyalty as “the mindset of consumers with favourable attitudes toward the mobile service providers who are committed to repurchase as well as recommend to others their products or services”. Based on these definitions, this study defined customer loyalty as a customer’s positive intention to purchase from a particular m-shopping company and their willingness to revisit the same store with the same purpose. Generally, scholars have used two types of measures to measure customer loyalty: attitudinal and behavioural loyalty, where attitudinal loyalty originated from commitment and motivated by unlimited dedication to a brand or company, while behavioural loyalty is directly related to repeat purchase (Chihombori, 2012; Kungumapriya & Malarmathi, 2018; Mohammadi et al., 2015). Bove et al. (2009) suggested that attitudinal and behavioural dimensions of loyalty are considered equally important and must be studied simultaneously. In fact, exploring attitudinal and behavioural loyalty could help online companies identify different customers segments and formulate different types of marketing strategies (Bobalca et al., 2012). Hence, the present study focuses on attitudinal and behavioural loyalty.

2.2 Mobile Service Quality

Service quality is the key to survival for all service-based companies and a significant predictor of customer loyalty in various mobile context studies (Dlodlo, 2014; Kungumapriya & Malarmathi, 2018; Kuo et al., 2009; Lee & Wong, 2016; Nurittamont, 2016). Traditionally, Parasuraman et al. (1988) defined service quality as “global judgment

or attitude relating to the overall excellence or superiority of the service”. Besides, there are certain definitions of service quality within the online environment. For example, Parasuraman et al. (2005) defined service quality as the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery to its customer. According to Liao et al. (2011), service quality is the customer’s experience with the service provider through a given electronic channel without human intervention. Despite all these meanings, there is no specific definition which explains service quality in the context of m-shopping. Consequently, this study defined service quality as the evaluation of a customer’s purchasing experience from the service quality provided by an m-shopping online company.

In spite of the fact that service quality has been highlighted and thoroughly studied by scholars in their mobile environment-related studies, there exist to be no measuring scales which measures service quality in mobile settings as most of these studies had directly applied service quality scales which were used in traditional and electronic commerce such as such as SERVQUAL and E-S-QUAL (Lu et al., 2009). In general, traditional shopping takes place when a customer visits a physical store to purchase, whereas customers conduct electronic shopping via electronic devices such as computers and laptops connected to a fixed-line internet connection. Essentially, m-shopping describes online transactions conducted through wireless internet-enabled mobile devices such as smartphones and tablets. It should be highlighted that the mentioned scales have ignored the unique features of m-shopping such as mobility, anytime and anywhere computing, and social conditions (Lu et al., 2009).

The present study adopted the scales proposed by Lu et al. (2009), which was used to measure mobile brokerage service in China. To the best of the author’s knowledge, these scales have not been examined and validated extensively in Malaysia. This model is a contemporary approach which could define service quality in the mobile context (Stiakakis & Georgiadis, 2011). In this particular model, service quality is divided into three main dimensions: interaction quality, environmental quality, and outcome quality. The interaction quality dimension is the interaction quality between customer and service provider during the transaction, which is built on four dimensions: attitude, expertise, problem-solving, and information. The second dimension is the environment quality, representing the navigational ability, and the quality of the mobile website, which consists of three dimensions: equipment, design and situation. The final aspect of the model is the outcome quality, i.e., the customer’s last impression at the end of the service delivery, which includes three dimensions: punctuality, tangibles and valence. The corporate image is excluded as it is irrelevant to the focus of this study. Thus, mobile service quality in this study is treated as a single construct representing all three dimensions forwarded by (Lu et al., 2009).

H1: Mobile service quality has a positive effect on customer loyalty.

2.3 *Commitment*

Rauyruen and Miller (2007) defined commitment as “a psychological sentiment of the mind through which an attitude concerning the continuation of a relationship with a business partner is formed” (as mentioned in Vuuren, 2012). Commitment is often regarded as a critical factor which ensures the success of the long-term relationship between customers and a company since committed customers tend to maintain their relationship with a particular company and remain loyal to it, considering the relationship with the company essential (Bricci et al., 2016; Dagger & O’Brien, 2010). Furthermore, commitment is commonly used in various marketing studies to differentiate loyal and non-loyal customers (Rafiq et al., 2013).

Typically, commitment is categorised into three types: affective commitment, continuance commitment, and normative commitment (Tonder, 2016). Affective commitment is the emotional attachment to an organisation, while continuance commitment is the costs that customers associate with leaving the organisation, and normative commitment is the customer’s feelings of obligation to stay with the company (Drohan, 2010; Thaichon, 2014). These three dimensions of commitment are included in this study to create a more comprehensive method to understand the relationship between commitment and loyalty (Bansod, 2011). Accordingly, this study defined commitment as the customer’s intention to continue and maintain a long-term relationship with a particular m-shopping company.

H2: Mobile service quality has a positive effect on commitment.

H3: Commitment has a positive effect on customer loyalty.

H4: Commitment mediates the relationship between mobile service quality and customer loyalty

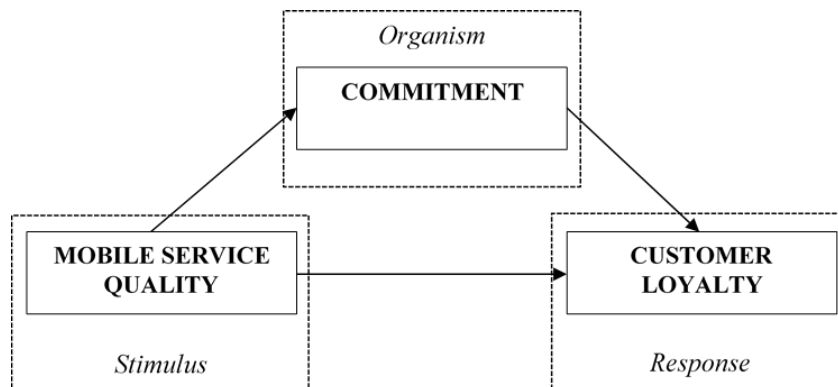
3.0 THEORETICAL FRAMEWORK

3.1 *Stimulus Organism Model*

The S-O-R model proposed by Mehrabian & Russell (1974) consists of stimulus as the independent variable, organism as a mediator, and response as the dependent variable (Goi et al., 2014). This model was widely used in previous studies to understand customer behaviour within the online shopping contexts (Jiang & Chan, 2009; Kawaf & Tagg, 2012; Kim & Lennon, 2013; Zhang & Benyoucef, 2016). This model also provides a more in-depth understanding of the relationship between the independent variable and dependent variable and the mediating role of organism on the relationship between stimulus and response (Goi et al., 2014). Therefore, this model was used as the framework for this study to examine the relationship between mobile service quality, commitment, and m-shopping customer loyalty. Based on the S-O-R model, the present research categorised service quality as the stimuli, commitment as an organism, and customer loyalty as the response. The conceptual model built for this study based on the literature above is illustrated in Figure 1, where mobile

service quality and commitment are the independent variables (IV), while customer loyalty is the dependent variable (DV).

Figure 1: Proposed Conceptual Model



4. Methodology of Study

The present paper is a pilot study of an on-going master’s degree research, which focuses on the relationship between mobile service quality and m-shopping customer loyalty in Malaysia. Therefore, a sample size of 100 was used as it is an appropriate amount for pilot studies (Sekaran & Bougie, 2013). The targeted respondents in this study are Malaysians who have experience purchasing online using their smartphone and other mobile devices such as tablets and personal digital assistants (PDA). The data in this study was collected using the online survey method where a convenient sampling technique was employed to select the respondents among friends, family members, and work colleagues. The pilot questionnaire comprised two sections: Section A consists demographic questions while Section B consists 23 items adopted from previous studies (Lin & Wang, 2006; Lu et al., 2009; Rafiq et al., 2013) and modified to fit this study. The link to this questionnaire was sent through e-mail, WhatsApp and Facebook. Finally, the collected data were analysed using the SEM method as it provides statistical inferences by assessing the relationships in the path diagram comprehensively (Hair et al., 2014). It is also fitting to estimate the strength of the relationships between the constructs identified (Lee & Wong, 2016).

5. Result and Findings

Table 1 describes the demographic profile of the respondents. From the 100 respondents, 46 per cent were males, and 54 per cent were females. Meanwhile, 11 per cent were 18 to 20 years old, 43 per cent were 21 to 30 years old, 29 per cent were 31 to 40 years old, 9 per cent of them were 41 to 50 years old, and 8 per cent were above 50 years old.

Furthermore, 42 per cent of the respondents were Malays, 11 per cent were Chinese, 37 per cent were Indians, 8 per cent were Pribumi from Sabah and Sarawak, and 2 per cent were other races, including Sikhs and Malaysians of European and Middle Eastern descent.

It was also discovered that most respondents had pursued their higher education where 66 per cent of them owns a degree, 18 per cent holds a master degree, 4 per cent owns a doctoral degree, and 7 per cent had passed their secondary education. In comparison, 5 per cent had other qualifications such as diploma and professional certificates. Ultimately, the most preferred m-shopping company available in the Malaysian digital landscape was Shopee with 51 per cent respondents, followed by Lazada with 46 per cent, Zalora with 2 per cent, and another 1 per cent was other m-shopping companies such as Goshop, Taobao, and eBay.

Measures	Items	Percentage (%)
Gender	Male	46
	Female	54
Age	18 - 20 years old	11
	21 - 30 years old	43
	31 - 40 years old	29
	41 - 50 years old	9
	Above 50 years old	8
Race	Malay	42
	Chinese	11
	Indian	37
	Pribumi	8
	Others	2
Education	Secondary	7
	Degree	66
	Master PhD	18
	Others	4
		5
Preferred M-shopping Company	Lazada	46
	Shopee	51
	Zalora	2
	Others	1

Table 1: Demographic profile of the respondents

Next, the measurement model was analysed by assessing the internal consistency reliability of the measuring scales, the convergent validity, and the discriminant validity. Firstly, the reliability of the measures was assessed using Cronbach’s alpha (α) and composite reliability value, and the result revealed that all the variables were reliable and

acceptable as the Cronbach's α coefficients were above 0.6. Simultaneously, the composite reliability value was greater than 0.7, as recommended by Fornell and Larcker (1981) and (Hair et al., 2014). Then, the convergent validity was analysed by focusing on the results of the measurement model's factor loading, composite reliability, and the average variance extracted (AVE). It should be noted that the factor's loading value should be 0.5 or more, the composite reliability value should be 0.7 or more, and the AVE value should be 0.5 or more (Hair et al., 2014). Table 2 shows the results of factor loadings, Cronbach's α , composite reliability, and AVE value of measures.

Construct	Measures	Factor Loadings	Cronbach's α	Composite Reliability	Average Variance Extracted (AVE)
Mobile Service Quality	MSQ 1	0.855	0.957	0.964	0.694
	MSQ 2	0.882			
	MSQ 3	0.910			
	MSQ 4	0.938			
	MSQ 5	0.398			
	MSQ 6	0.802			
	MSQ 7	0.844			
	MSQ 8	0.889			
	MSQ 9	0.881			
	MSQ 10	0.917			
	MSQ 11	0.752			
	MSQ 12	0.789			
Commitment	CMT 1	0.847	0.759	0.839	0.522
	CMT 2	0.797			
	CMT 3	0.700			
	CMT 4	0.407			
	CMT 5	0.774			
Customer Loyalty	CLY 1	0.777	0.822	0.880	0.568
	CLY 2	0.810			
	CLY 3	0.273			
	CLY 4	0.893			
	CLY 5	0.835			
	CLY 6	0.762			

Table 2: Factor loadings, Cronbach's α , composite reliability, and AVE

From Table 2, there are three items with cross-loading values below 0.5 in each construct (0.398, 0.407 and 0.273). Despite the results, these items were kept as the low value might be the result of the small sample size of respondents used in this study. Therefore, no items were deleted.

Later, the discriminant validity was first assessed with the collinearity statistic of the Variance Inflation Factor (VIF) value, where all the constructs in this study had a value

below five (as recommended by Hair et al. 2014), proving that there is no collinearity between the constructs in the research model. On top of that, the Heterotrait-Monotrait (HTMT) analysis was conducted to determine the discriminant validity. The results from the analysis indicated discriminant validity as the values were not close to 1 and below 0.9 (Hamid et al., 2017). Table 3 shows the result of the HTMT analysis conducted in this study.

Construct	CLY	CMT	MSQ
Customer Loyalty (CLY)	0.754		
Commitment (CMT)	0.658	0.722	
Mobile Service Quality (MSQ)	0.666	0.551	0.833

Table 3: Discriminant Validity (HTMT Ratio)

In this study’s model, the coefficient of determination was at a satisfactory level where mobile service quality predicted the highest customer loyalty ($r^2 = 0.425$) and commitment ($r^2 = 0.401$). Thus, an adequate model fit was achieved. Moreover, the hypothesis developed in this study was analysed to determine the relationship between the constructs. In fact, the results from the test supported all hypotheses. The results showed that the mobile service quality had a positive effect on customer loyalty and commitment (H1: $\beta = 0.446$, $t = 3.749$, $p = 0.002$; H2: $\beta = 0.490$, $t = 5.640$, $p = 0.000$). This study also revealed that commitment positively affects customer loyalty (H3: $\beta = 0.315$, $t = 3.088$, $p = 0.000$). For the mediation analysis, the total effect and direct effect were calculated, and the results showed that the direct effect of mobile service quality towards customer loyalty was significant ($t = 3.749$, $p = 0.002$). Similarly, the indirect effect of mobile service quality towards customer loyalty through commitment was significant ($t = 2.779$, $p = 0.006$). On the other hand, 95% confidence interval (CI) of mobile service quality towards customer loyalty through commitment (0.064, 0.230) did not include 0 (Nitzl et al., 2016). In sum, commitment partially mediates the relationship between mobile service quality and customer loyalty.

Hypothesis	Path	Path Coefficients (β)	t-Statistics	p-Values	95% CI
H1	MSQ -> CLY	0.446	3.749	0.002	(0.243, 0.629)
H2	MSQ -> CMT	0.490	5.640	0.000	(0.338, 0.627)
H3	CMT -> CLY	0.315	3.088	0.000	(0.164, 0.469)
H4	MSQ -> CLY	0.153	2.779	0.006	(0.064, 0.230)

Table 4: Hypothesis test result

6. Discussion and Conclusion

This study had empirically identified the significant role of mobile service quality and commitment to establish customer loyalty in the m-shopping context. Although the results in this study revealed that mobile service quality had a positive relationship with commitment and customer loyalty, the effect of mobile service quality on commitment is higher than customer loyalty. Basically, mobile service quality is an essential factor to increase committed customers. Therefore, m-shopping companies should focus more on the service quality provided to customers as it could profoundly affect the customer's intention to stay committed and maintain a long-term relationship with their company. Additionally, the results highlighted that mobile service quality is equally important in building customer loyalty among m-shopping customers. Hence, online shopping companies should underline the interaction quality, the variety of their websites, punctuality, and the customers' emotions during a business transaction.

There are several limitations to this study. Firstly, this study only focused on Malaysian customers, and the findings might not apply to other countries. Secondly, the number of respondents used were relatively low as this is a pilot study. Thus, a more significant number of respondents should be used in the actual intended survey to confirm the findings. Finally, this study only highlighted the relationship between service quality, commitment, and customer loyalty. Future studies conducted within the m-shopping context should include all three dimensions of relationship quality (trust, satisfaction, commitment) and examine its effect on the relationship between mobile service quality and customer loyalty. This need for further research stems from the lack of studies conducted on the listed constructs within m-shopping settings.

In conclusion, the findings from this pilot study prove that the measuring instrument used had fulfilled the requirements of the reliability and validity analyses and could be used in m-shopping-related studies. This study also confirms that mobile service quality and commitment has a positive effect on customer loyalty and commitment to partially mediate the relationship between mobile service quality and customer loyalty. Additionally, this study provides scholars with a precise customer loyalty model correctly build for m-shopping loyalty related studies, simultaneously giving valuable insights to m-shopping companies to build loyalty among customers in Malaysia

Disclosure Statement

No potential conflict of interest was reported by the authors.

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