Determinants of Customer Satisfaction in Mobile Commerce

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Abstract

The major aim of the research paper is to measure the impact of m-quality factors on the customer satisfaction in m-commerce of University undergraduates in Sri Lanka. Primary data was collected from University undergraduates in four Universities in Sri Lanka. Convenience sampling method was used to obtain 285 responses from University undergraduates. The collected data were used to test the model using multiple regression analysis. The result reveals that in this research vendor quality (i.e. responsiveness and brand image) were found to be important factors affecting customer satisfaction. Moreover, the customization but not the interactivity of website quality contributed to the formation of customer satisfaction. Together these factors explained approximately 36 per cent of the variance in customer satisfaction.

1. Introduction

Recent developments in mobile technologies have led to cheaper mobile phones, smartphones, and tablets and cheaper wireless network access. These decreasing costs have led to a higher penetration of mobile devices among users. According to the International Telecommunication Union (2015), there are almost as many mobile-cellular subscriptions (7 billion) as people on the Earth, resulting in mobile penetration (i.e., the number of mobile subscriptions per 100 inhabitants) of 97% globally. Contemporary smartphones are no longer used only for voice communication, but as complex communication devices allowing wireless internet access, data transfer, and numerous mobile services. Globally, 72% of internet users access the internet through a mobile device (Ecommerce Europe, 2015).

Mobile commerce (m-commerce) is one of the fastest-growing businesses today. It represents approximately 35% of all retail e-commerce transactions globally (Criteo, 2016). Leading the way in m-commerce is Japan, where half of online transactions are mobile, mostly through smartphones (Criteo, 2016), followed by the UK with 40% (Internet Retailer, 2015), and South Korea. Around 32% of online purchases by US consumers are made through smartphones and tablets (eMarketer, 2016). M-commerce is usually defined as the buying and selling of goods and services through mobile devices via wireless networks (Chong, 2013), or more specifically, as "any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and/or completed by using mobile access to computer-mediated networks with the help of mobile devices" (Wei et al., 2009). Although m-commerce has generally been viewed as an extension of e-commerce (Chong et al., 2012; Lu, 2014), m-commerce offers advantages such as location-based services and truly mobile accessibility. Internet access is growing rapidly in Sri Lanka. The International Telecommunication Union (ITU) reported in 2018 that 58.8 percent of the population has internet access and 34.1 percent of the population uses the internet regularly. Mobile phone penetration is also high reaching 115.1 per 100 inhabitants. Sri Lanka's private telecommunications companies have led the expansion of 3G and 4G and have started pilot applications of 5G technology (Export.gov, n.d.). Financial institutions are also developing the related services of payment gateways to offer reliable online payment services to support the expansion of m-commerce. Several m-commerce applications are launched by companies in order to retain their customers and to increase the market share.

Customer retention is essential to companies, including m-commerce providers, because attracting new customers can be expensive (Lin and Wang, 2006). However, consumers may not make repeat purchases if they are not satisfied with a transaction. In other words, repurchase intention is strongly related to customer satisfaction (San-Martin and Lopez-Catalan, 2013). Though there are some researches that analyzed the determinants of m-commerce satisfaction, very few of them considered the role of vendor's website quality, mobile technology quality and vendor quality as the determinants in Sri Lankan context. The objective of the present study is to fill the existing research gap by developing a model that predicts consumer satisfaction with

the above-mentioned three factors. The developed research model consists of six predictors, and consumer satisfaction as the dependent variable. The developed model aims to examine the effects of these variables on consumer satisfaction in m-commerce.

2. Problem Statement

As per the literature available with respect to e-commerce adoption, the customers who have trust on the e-commerce payments will tend to repurchase via the e-commerce platforms. Further, it is evident that customer satisfaction leads to the trust in e-commerce platforms. M-commerce was born from e-commerce and in Sri Lanka, though many m-commerce applications are launched by organizations to facilitate online transactions, the usage level of such applications is at a limited level. Therefore, before finding out the trust level of the m-commerce users, it is essential to find out their satisfaction level about the usage of m-commerce-related activities. Therefore, this study finds this as a research problem and attempts to find out the level and determinants of customer satisfaction in m-commerce in Sri Lankan context. The following two main research questions are raised:

1. What is the level of customer satisfaction in m-commerce in Sri Lanka?
2. What is the level of impact of website quality, technology quality and vendor quality on the customer satisfaction in m-commerce?

3. Literature Review

The concept of customer satisfaction is one of the most important issues in marketing thought and practice because it is one of the most significant determinants of repeat sales, positive word-of-mouth, and consumer loyalty. Customer satisfaction is the result of post-purchase evaluation, namely, if in the customer's opinion the performance of the product or service is better than expected, a high level of satisfaction results, and vice versa (Yeh and Li, 2009). Wang and Liao (2007) define m-commerce user satisfaction as "a summary affective response of varying intensity that follows mobile commerce activities, and is stimulated by several focal aspects, such as information quality, system quality and service quality" (p. 384). Satisfaction implies the fulfillment of expectations.

Customer satisfaction usually has a positive impact on consumers' loyalty to a business (SanMartin and Lopez-Catalan, 2013). Satisfied consumers tend to show high levels of repurchase intentions and positive word-of-mouth (Wang and Liao, 2007). Park and Kim (2013) found satisfaction to be the most crucial factor contributing to consumer intention to use 4G Long-Term Evolution mobile services. Chong (2013a) found satisfaction as one of the most significant predictor of continued m-commerce usage intention.

M-commerce is still in its early stage of implementation; therefore, few m-commerce studies have focused on customer satisfaction. For example, Yeh and Li (2009) suggest that the vendor's website (i.e., its interactivity and customization), the quality of the vendor's mobile technology (i.e., its usefulness and ease of use), and the vendor's responsiveness and brand image are key factors in m-commerce user satisfaction. Chong's (2013a) model for m-commerce continued usage intention integrates the expectation confirmation model and TAM. In Chong's model, the determinants of user satisfaction are the TAM variables perceived ease of use and perceived usefulness alongside confirmation from the expectation confirmation model. Perceived enjoyment, trust, and perceived cost are the model's external variables.

Cho (2008) investigated the influence of information, price, service, convenience, technology, and promotional and entertainment factors, through perceived usefulness and ease of use, on user attitudes toward m-commerce usage and how these attitudes affect user satisfaction in the United States and Korea. Deng et al. (2010) discuss the influence of trust, service quality, and perceived value on customer satisfaction and found that satisfaction has a strong influence on loyalty in the context of mobile instant messaging. Lin and Wang (2006) investigated the influence of perceived value and trust on satisfaction and also found customer satisfaction to be the strongest direct predictor of customer loyalty.

Lee et al. (2015) found that, in the life-insurance industry, perceived usefulness, ease of use, and playfulness significantly influence customer satisfaction with mobile application services. Agrebi and Jallais (2015) also found that perceived usefulness, ease of use, and enjoyment strongly affect consumer satisfaction for both mobile purchasers and non-purchasers. San-Martin et al. (2015) tested the effects of perceived entertainment

and social norms on m-shopper satisfaction of both young and older (more than 25 years old) adults in Spain and found a significant influence of entertainment only for young adults and of subjective norms only for older adults. Kim et al. (2015) found that perceived value and enjoyment are direct antecedents, and timesaving and mobility are indirect antecedents (mediated by the context of use), of customer satisfaction in mobile tourism shopping.

4. Conceptual Framework and Research Hypotheses

The researcher chose the quality dimensions as determinants of customer satisfaction in m-commerce. A high-quality service not only improves the level of customer satisfaction (Parasuraman et al., 1988) but it is also one of the main factors in gaining customer trust (Garbarino and Johnson, 1999). However a poor quality service can result in loss of customers to competitors and reduction in profits. The research model is depicted in Figure 1. Since there is no consensus on the exact number or nature of quality dimensions considered important by customers in m-commerce, for the present study it was necessary to identify the affective quality dimensions. Three quality (m-quality) dimensions were proposed: web site quality, mobile technology quality and vendor quality.

Figure 1: Conceptual Framework
(Source: Yeh and Li, 2009)

Website Quality

Mobile business applications that involve interactivity and customization provide new opportunities for expansion and enhancement of markets. These two factors interact to influence customers' perceptions of satisfaction during the use of mobile technology (Liang and Wei, 2004). Lee (2005) argued that the interactivity is an influential source of customer satisfaction and trust. He suggested that the major characteristics of interactivity are ubiquitous connectivity and contextual offers and defined it as the continuation of mobile commerce activities irrespective of users' time and location. Lee and Benbasat (2003) defined customization as a tailoring ability enhanced by users' mobile setting. Venkatesh et al. (2003) further suggested that customization's impact can be extended to enhance the mobile interface design and to improve mobile usability,

thus raising the level of satisfaction. Accordingly, web site quality refers to the satisfaction fulfilment process. Therefore it was hypothesized that:

H_1: Interactivity positively influences the customer satisfaction in m-commerce

H_2: Customization positively influences the customer satisfaction in m-commerce

Mobile Technology Quality

Usefulness and ease-of-use are the two vital elements in the Technology Acceptance Model (TAM) (Davis, 1989). In TAM the behavioural intention to use is jointly influenced by attitude and usefulness, where the latter directly affects the former. Moreover, ease-of-use directly influences usefulness and attitude. In general TAM explains and predicts individual acceptance of IT. Previous research in information science (IS) and information technology (IT) has shown that these two factors influence individuals' attitudes towards using the system. They were shown to be closely related to the acceptance of computer technologies (Davis, 1989; Venkatesh and Davis, 2000) and are of great importance for new users (Gefen and Straub, 2000). In recent research in the m-commerce context, usefulness and ease-of-use are modified to effectiveness and immediateness of purpose fulfilment, skill in using mobile services and degree of ease of utilizing mobile services. Based on a review of empirical evidence, usefulness and ease-of-use may positively affect satisfaction (Ribbink et al., 2004). Thus, it was hypothesized that:

H_3: Usefulness positively influences the customer satisfaction in m-commerce

H_4: Ease-of-use positively influences the customer satisfaction in m-commerce

Vendor Quality

Responsiveness and brand image are possible sources of perceived vendor quality. Responsiveness can specifically represent an e-retailer's commitment to providing rapid feedback (Dholakia et al., 2000; Ku, 1992) or generally refer to being responsive to the service subscribers (Heeter, 1989). Its recent applications can be found in different areas of e-commerce such as web-based services (Kuo, 2003), internet retailing (Barnes and Vidgen, 2001) and electronic banking (Zhu et al., 2002). Previous studies suggest responsiveness is critical not only as a measure of service quality but also as a diagnostic tool for uncovering areas of service quality strengths and shortfalls (Kettinger and Lee, 1997; Pitt et al., 1995; Van Dyke et al., 1997). Enhanced management of any customer contact can significantly improve customer satisfaction. Thus responsiveness may influence customer satisfaction based on a business transaction. Based on the reasoning above, it was hypothesized that:

H_5: Responsiveness positively influences the customer satisfaction in m-commerce

As another possible source of vendor quality, brand image is more than a name given to a product. It can be broken down into a whole set of physical and socio-psychological attributes and beliefs (Simoes and Dibb, 2001), all of which affect customers' perceptions of the brand and the meaning they attribute to it. Moreover, similar classifications of brand image distinguish product-related and non-product-related attributes, as proposed by Keller (1998) and Aaker (1997). While the former refers to the components of the core product or function sought by customers, the latter are external to the function or process of the product or the service provided (Keller, 1998). These two attributes can be formed from customers' own experience with the brand or through the image portrayed via marketing channels (O'Cass and Grace, 2004). Geyskens et al. (1996) suggested ease of relationships with service operators can improve the level of satisfaction. According to Lannon and Cooper (1983) ease of relationships can be built through the development of brand image and thus make customers become part of the brand. Accordingly, it seems that a strong image will lead to better customer satisfaction. Hence it was hypothesized that:

H_6: Brand image positively influences the customer satisfaction in m-commerce

5. Research Methodology

5.1 Samples

Sri Lanka had a remarkable mobile penetration rate which increased to 137 per cent in January, 2019 (Jebamani, 2019) from 126 per cent in 2017 (Cision, 2017). Out of that, 25 per cent were internet users. Further, it should be noted that the penetration of mobile social media users is 27% in 2019 and they were aged mostly 21 to 30 years old (Jebamani, 2019). Therefore this group of users was focused in this study. The research questions were examined by these experienced m-commerce customers. According to Kuo and Yen (2009) the customers in this age range are mainly university students and are distributed across the whole island. Therefore in order for the samples to be representative, four universities were selected; Eastern University, University of Jaffna, Uva Wellassa University and University of Sri Jayewardenepura. Convenience sampling method was used to select the sample respondents. After obtaining permission from the respondents, information such as the background and purpose of the research as well as a questionnaire hyperlink were emailed to 450 students enrolled in undergraduate level classes between May and July, 2019.

5.2 Research Instrument

The online questionnaire method was used. This data collection method has numerous advantages as suggested by Tan and Teo (2000). For instance, it can elicit faster responses either geographically or demographically. According to Hsu and Lu (2004) this method has been widely used in recent years. A total of 285 responses were collected. Judging by previous studies this sample size was suitable for further statistical analysis (Luarn and Lin, 2005; Casaloˊ et al., 2007).

5.3 Measure of Constructs

Items selected for the constructs were primarily adapted from previous studies to ensure content validity. All the questionnaire items used a five-point Likert-type scale, ranging from (1) strongly disagree to (5) strongly agree. The scale items for web site quality (i.e. interactivity and customisation) were adapted from Lee (2005) and Ribbink et al. (2004). The scale items for mobile technology quality (i.e. usefulness and ease-of-use) were taken from Davis (1989). Items for vendor quality (i.e. responsiveness and brand image) were adapted from Parasuraman et al. (1988, 1991) and Hsieh and Li (2008). The constructs for satisfaction were adapted from Lin and Wang (2006), Hsu et al. (2007) and Heijden et al. (2003).

6. Research Findings

6.1 Demographic Analysis

Of the 285 participants 46 per cent were female and 54 per cent were male. Results demonstrated that over 75 per cent of participants were aged 21-29 years old, and over 70 per cent had had at least one m-commerce experience in last three months.

6.2 Reliability Analysis

The reliability of an instrument is the degree of consistency which measures the attribute that is supposed to evaluate (Polit& Hunger, 1985). Reliability can be equated with stability, consistency or dependability of a measuring tool. Cronbach‟s alpha coefficient method was used to measure the reliability of the questionnaire The normal range of Cronbach's coefficient alpha value sits between 0.0 and +1.0; and a higher value reflects a prominent degree of internal consistency (Polit& Hunger, 1985). The results of the reliability analysis are given in table 1.

Table 1: Reliability of the Research Instrument

Variables	N	CA
Interactivity	3	0.740
Customization	3	0.809
Usefulness	2	0.811
Ease of Use	3	0.826
Responsiveness	3	0.839
Brand Image	3	0.766
Customer Satisfaction	2	0.800

Reviewing table 1 reveals that the values of Cronbach"s alpha for all the variables are above 0.7. Thus, the whole questionnaire is considered reliable. Thereby, the researcher ensured validity, reliability and stability of the questionnaire.

6.3 Levels of Study Variables

Descriptive analysis was carried out to find out the level of independent variables and customer satisfaction of University undergraduates in Sri Lanka. The summary of the analysis is given in table 2 below.

Table 2: Levels of Study Variables

Variables	Mean	SD
Interactivity	2.81	0.701
Customization	3.68	0.791
Usefulness	2.73	0.897
Ease of Use	2.88	0.651
Responsiveness	2.64	0.970
Brand Image	2.82	0.883
Customer Satisfaction	3.31	0.644

Table 2 reveals that customer satisfaction in mobile commerce is at moderate level. All the independent variables except customization are at moderate level where as customization is at high level. Standard deviation values show that there were no big disparities in the responses of the respondents.

6.4 Multiple Regression Analysis

Multiple regression analysis was carried out to find out the impact of several m-commerce related factors on the customer satisfaction in m-commerce of University undergraduates in Sri Lanka. The results of the analysis are shown in table 3.

Table 3: Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.426	.191		7.449	.000
	Interactivity	-.079	.058	-.086	-1.353	.177
	Customization	.177	.049	.217	3.604	.000
	Usefulness	.012	.048	.016	.241	.809
	Ease of Use	.056	.052	.057	1.081	.280
	Responsiveness	.167	.043	.251	3.841	.000
	Brand Image	.291	.048	.398	6.023	.000

a. Dependent Variable: Satisfaction

According to the analysis, 36% of the variation in customer satisfaction is caused by regression model. ANOVA has exhibited a F value of 25.933 with an associated significant value of 0.000. As this significant value is less than 0.05, there is sufficient evidence to say that this regression model is valid. Among the six variables included in the model, customization, responsiveness and brand image had significant values which are less than 0.05 and therefore, it can be interpreted that these three variables have significant impact on customer satisfaction. As a result, H_2, H_5 and H_6 were supported. Among them, brand image has higher impact on customer satisfaction. The other three variables, interactivity, usefulness and ease of use did not have significant impact on customer satisfaction. Hence, H_1, H_3 and H_4 were rejected.

7. Discussion

The purpose of the research was to find out the impact of several m-commerce related factors on the customer satisfaction in mobile commerce. Six variables were chosen for the study which represented vendor's website quality, mobile technology quality and vendor quality. Analysis revealed that the mobile technology quality which was represented by usefulness and ease of use was not significant predictor of customer satisfaction. This finding is in line with Yeh and Li (2009). This is because, in the present era, the customer who use mobile

phones for doing any type of online transactions are well used to the mobile technologies and they find it very easy to use the mobile phones and related devices. Availability of different kinds of applications and mobile platforms enable them to use an application of a vendor without any difficulties. Therefore, the usefulness of applications or the ease of use an application is of little importance to customers nowadays.

Interactivity and customization was used to measure the vendor's website quality because it was evidenced in literature that website quality plays a significant role in customer satisfaction and repurchase intention. However, in Sri Lankan context, interactivity was not significant predictor of customer satisfaction. Though mobile business applications that involve interactivity and customization provide new opportunities for expansion and enhancement of markets, the degree of interactivity in those applications are low in Sri Lanka compared to the developed economies. However, customization was found to be a significant predictor of customer satisfaction in mobile commerce. When there are more customization features available to suit the customer needs, they find it very pleasant and they perceive it better than offline purchase. As a result, the satisfaction level increases.

Vendor quality was measured by responsiveness and brand image. These two variables were found to be significant predictors of customer satisfaction in m-commerce. These finding was in line with many previous researches. Among these two variables, brand image was the highest influential variable that creates customer satisfaction.

As in the studies by Liang and Wei (2004), Berry (2000) and Parasuraman et al. (1988), web site and vendor quality influenced customer satisfaction. Several implications for market practitioners are raised. First, understanding how satisfaction is built and how to improve it are important for the vendors on the mobile internet. While integrating their services it is equally important to return to the basic tenet that customers are the core of the business. Increasing their satisfaction can result in a larger customer base. Second, as quality factors such as customization have been validated as a mean to improve satisfaction with business transactions, vendors on the mobile internet should provide a customized mobile online environment for customers, especially for their first time use. The mobile environment must gain customers' interest in continued use before they become bored. Meanwhile brand managers should think strategically about their brand because it may take many years of strategic planning before a successful brand can function to raise customer satisfaction (Hankinson and Hankinson, 1999). Third, service feedback is crucial on the mobile internet. Customers need a rapid response from vendors when they encounter problems. This finding implies that mobile software must be based on customers' needs. Interface design and the constraints of mobile technology are of particular importance.

8. Conclusion

The purpose of this study was to develop and empirically test factors that influence customer satisfaction in m-commerce. The proposed model enhanced the understanding of formation of customer satisfaction. The effects of proposed quality factors on customers' satisfaction in m-commerce have been verified. In line with past studies, the research found that vendor quality and website quality are important determinants of customer satisfaction. Moreover, the determinants of satisfaction have been validated, leading the way for a detailed exploration of how to improve customer satisfaction.

In Sri Lanka, m-commerce is open to business opportunities for vendors in general. As more customers conduct their business activities on the mobile internet, the demand for mobile services will continue to grow. How to retain existing customers and attract new ones become important issues. The results of this study suggest that by focusing on and improving the m-quality factors, vendors on the mobile internet can provide a more satisfying experience for customers.

9. References

Agrebi, S. and Jallais, J. (2015), "Explain the intention to use smartphones for mobile shopping", *Journal of Retailing and Consumer Services*, Vol. 22, pp. 16-23.

Aaker, J.L. (1997), "Dimensions of brand personality", Journal of Marketing Research, Vol. 34 No. 3, pp. 347-56.

Barnes, S.J. and Vidgen, R. (2001), "An evaluation of cyber-bookshops: the WebQual method", International Journal of Electronic Commerce, Vol. 6 No. 1, pp. 11-30.

Berry, L.L. (2000), "Cultivating service brand equity", Journal of the Academy of Marketing Science, Vol. 28 No. 1, pp. 128-37.

Casalo´, L.V., Flavia´n, C. and Guinalı´u, M. (2007), "The role of security, privacy, usability and reputation in the development of online banking", Online Information Review, Vol. 31 No. 5, pp. 583-603.

Cho, Y.C. (2008), "Assessing user attitudes toward mobile commerce in the US vs. Korea: Implications for m-commerce CRM", *Journal of Business & Economics Research*, Vol. 6 No. 2, pp. 91-102.

Chong, A. Y-L. (2013), "Understanding mobile commerce continuance intentions: an empirical analysis of Chinese consumers", *Journal of Computer Information Systems*, Vol. 53 No. 4, pp. 22-30

Chong, A.Y-L., Chan, F.T.S. and Ooi, K-B. (2012), "Predicting consumer decisions to adopt mobile commerce: Cross country empirical examination between China and Malaysia", *Decision Support Systems,* Vol. 53 No. 1, pp. 34-43.

Cision (2017). Sri Lanka - Telecoms, Mobile and Broadband - Statistics and Analyses, https://www.prnewswire.com/news-releases/sri-lanka---telecoms-mobile-and-broadband---statistics-and-analyses-300552420.html

Corritore, C.L., Kracher, B. and Wiedenbeck, S. (2003), "On-line trust: concepts, evolving themes, a model", International Journal of Human-Computer Studies, Vol. 58 No. 6, pp. 737-58.

Criteo (2016), "State of mobile commerce: leading mobile retailers dominate - and the gap is growing. Q4 2015", available at: http://www.criteo.com/media/3750/criteo-state-of-mobilecommerce- report-q4-2015.pdf (accessed 6 June 2019).

Davis, F.D. (1989), "Perceived usefulness, perceived ease-of-use, and user acceptance of information technologies", MIS Quarterly, Vol. 13 No. 3, pp. 319-40

Deng, Z., Lu, Y., Wei, K.K. and Zhang, J. (2010), "Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China", *International Journal of Information Management*, Vol. 30, pp. 289-300

Dholakia, R.R., Miao, Z., Dholakia, N. and Fortin, D.R. (2000), "Interactivity and revisits to websites: a theoretical framework", RITIM working paper, (online), available at: http:// ritim.cba.uri.edu/wp/ (accessed 4 September 2009).

Ecommerce Europe (2015), "Global B2C e-commerce report 2015", Ecommerce Europe, available at: https://www.ecommerce-europe.eu/facts-figures/free-light-reports (accessed 6 June 2019).

eMarketer (2016), "Most digital buyers will make purchases via a smartphone by 2017", available at: http://www.emarketer.com/Article.aspx?R=1013590&ecid=NL1001 (accessed 6 June 2019).

Garbarino, E. and Johnson, M.S. (1999), "The different roles of satisfaction, trust, and commitment in consumer relationships", Journal of Marketing, Vol. 63 No. 2, pp. 70-87.

Gefen, D. and Straub, D.W. (2000), "The relative importance of perceived ease of use in IS adoption: a study of e-commerce adoption", Journal of the Association for Information Systems, Vol. 1 No. 8, pp. 1-28.

Geyskens, I., Steenkamp, J., Scheer, L.K. and Kumar, N. (1996), "The effects of trust and interdependence on relationship commitment: a trans-Atlantic study", International Journal of Research in Marketing, Vol. 13 No. 4, pp. 303-17.

Hankinson, P. and Hankinson, G. (1999), "Managing successful brands: an empirical study which compares the corporate cultures of companies managing the world's top 100 brands with those managing outsiders brands", Journal of Marketing Management, Vol. 15 Nos 1-3, pp. 135-55.

Heeter, C. (1989), "Implication of new interactivity technologies for conceptualizing communication", in Salvaggio, J. and Bryant, J. (Eds), Media Use in the Information Age, Erlbaum, Hillsdale, NJ, pp. 217-35.

Heijden, H.V.D., Verhagen, T. and Creemers, M. (2003), "Understanding online purchase intentions: contributions from technology and trust perspectives", European Journal of Information Systems, Vol. 12 No. 1, pp. 41-8

Hsieh, A.T. and Li, C.K. (2008), "The moderating effect of brand image on public relations perception and customer loyalty", Marketing Intelligence and Planning, Vol. 26 No. 1, pp. 26-42.

Hsu, C.L. and Lu, H.P. (2004), "Why do people play on-line games? An extended TAM with social influences and flow experience", Information and Management, Vol. 41 No. 7, pp. 853-68.

International Telecommunication Union (2015), "ICT facts & figures: the world in 2015", available at: http://www.itu.int/en/ITU D/Statistics/Documents/facts/ICTFactsFigures2015.pdf (accessed 6 June 2019).

Internet Retailer (2015), "40% of UK online retail sales are mobile", available at: https://www.internetretailer.com/2015/02/25/40-uk-online-retail-sales-are-mobile (accessed 6 June 2019

Jebamani, D. (2019). DIGITAL DATA 2019 FOR SRI LANKA, Retrieved from https://www.linkedin.com/pulse/digital-data-2019-sri-lanka-dinesh-jebamani/

Keller, K.L. (1998), Strategic Brand Management, Prentice-Hall, Upper Saddle River, NJ.

Kettinger, W.J. and Lee, C.C. (1997), "Pragmatic perspectives on the measurement of information systems service quality", MIS Quarterly, Vol. 21 No. 2, pp. 223-40.

Kim, M.J., Chung, N., Lee, C-K. and Preis, M.W. (2015), "Motivations and use context in mobile tourism shopping: applying contingency and task-technology fit theories", *International Journal of Tourism Research*, Vol. 17, pp. 13-24

Ku, L. (1992), "Impacts of interactivity from computer-mediated communication in an organization setting: a study of electronic mail", doctoral dissertation, Michigan State University, East Lansing, MI.

Kuo, Y.F. and Yen, S.N. (2009), "Towards an understanding of the behavioral intention to use 3G mobile value-added services", Computers in Human Behavior, Vol. 25 No. 1, pp. 103-10.

Lannon, J. and Cooper, P. (1983), "Humanistic advertising – a holistic cultural perspective", International Journal of Advertising, Vol. 2, pp. 195-213.

Lee, C-Y., Tsao, C-H. and Chang, W-C. (2015), "The relationship between attitude toward using and customer satisfaction with mobile services: an empirical study from the life insurance industry", *Journal of Enterprise Information Management*, Vol. 28 No. 5, pp. 680-697.

Lee, T.M. (2005), "The impact of perceptions of interactivity on customer trust and transaction intentions in mobile commerce", Journal of Electronic Commerce Research, Vol. 6 No. 3, pp. 165-80.

Lee, Y.E. and Benbasat, I. (2003), "Interface design for mobile commerce", Communications of the ACM, Vol. 46 No. 12, pp. 49-52.

Liang, T.P. and Wei, C.P. (2004), "Introduction to the special issue: mobile commerce applications", International Journal of Electronic Commerce, Vol. 8 No. 3, pp. 7-17.

Lin, H.H. and Wang, Y.S. (2006), "An examination of the determinants of customer loyalty in mobile commerce contexts", Information and Management, Vol. 43 No. 3, pp. 271-82.

Luarn, P. and Lin, H.H. (2005), "Towards an understanding of the behavioral intention to use

mobile banking", Computers in Human Behavior, Vol. 21 No. 6, pp. 873-91.

Lu, J. (2014), "Are personal innovativeness and social influence critical to continue with mobile commerce?", *Internet Research*, Vol. 24 No. 2, pp. 134-159.

O'Cass, A. and Grace, D. (2004), "Exploring consumer experiences with a service brand", Journal of Product and Brand Management, Vol. 13 No. 4, pp. 257-68.

Park, E. and Kim, K.J. (2013), "User acceptance of long-term evolution (LTE) services: An application of extended technology acceptance model", *Program: electronic library and information systems*, Vol. 47 No. 2, pp. 188-205

Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality", Journal of Retailing, Vol. 64 No. 1, pp. 12-40.

Parasuraman, A., Berry, L.L. and Zeithaml, V.A. (1991), "Refinement and reassessment of the SERVQUAL scale", Journal of Retailing, Vol. 67 No. 4, pp. 420-50.

Pitt, L.F., Watson, R.T. and Kavan, C.B. (1995), "Service quality: a measure of information systems effectiveness", MIS Quarterly, Vol. 19 No. 2, pp. 173-87.

Ribbink, D., Van Riel, A.C.R. and Liljander, V. (2004), "Comfort your online customer: quality, trust and loyalty on the internet", Managing Service Quality, Vol. 14 No. 6, pp. 446-56.

San-Martin, S. and Lopez-Catalan, B. (2013), "How can a mobile vendor get satisfied customers?", *Industrial Management & Data Systems*, Vol. 113 No. 2, pp. 156-170

San-Martin, S., Prodanova, J. and Jimenez, N. (2015), "The impact of age in the generation of satisfaction and WOM in mobile shopping", *Journal of Retailing and Consumer Services*, Vol. 23, pp. 1-8

Simoes, C. and Dibb, S. (2001), "Rethinking the brand concept: new brand orientation", Corporate Communications: An International Journal, Vol. 6 No. 4, pp. 217-24.

Tan, M. and Teo, T. (2000), "Factors influencing the adoption of internet banking", Journal of the AIS, Vol. 1 No. 5, pp. 1-42.

Van Dyke, T.P., Kappelman, L.A. and Prybutok, V.R. (1997), "Measuring information systems service quality: concerns on the use of the SERVQUAL questionnaire", MIS Quarterly, Vol. 21 No. 2, pp. 195-208.

Venkatesh, V., Ramesh, V. and Massey, A.P. (2003), "Understanding usability in mobile commerce", Communications of the ACM, Vol. 46 No. 12, p. 53.

Wang, Y.S. and Liao, Y.W. (2007), "The conceptualization and measurement of m-commerce user satisfaction", Computers in Human Behavior, Vol. 23 No. 1, pp. 381-98.

Wei, T.T., Marthandan, G., Chong, A. Y-L., Ooi, K-B. and Arumugam, S. (2009), "What drives Malaysian m-commerce? An empirical analysis", *Industrial Management & Data Systems*, Vol. 109 No. 3, pp. 370-388

Yung Shao Yeh Yung-Ming Li, (2009),"Building trust in m-commerce: contributions from quality and satisfaction", Online Information Review, Vol. 33 Iss 6 pp. 1066 - 1086

Zhu, F.X., Wymer, W. and Chen, I. (2002), "IT-based services and service quality in consumer banking", International Journal of Service Industry Management, Vol. 13 No. 1, pp. 69-90