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INTERRELATIONS BETWEEN MOBILE BANKING SERVICE QUALITY ATTRIBUTES, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY IN DOMESTIC COMMERCIAL BANKS IN SRI LANKA

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ABSTRACT

The main objective of this study is to find the interrelationship between mobile banking service quality attributes, customer satisfaction and customer loyalty, in the mobile banking sector in Sri Lanka. This study specifically aims to measure the qualities of mobile banking service provided via mobile banking applications. Review of literature reveals that a lesser amount of research has been conducted to investigate the quality of services delivered through mobile banking applications, and the interrelationship among mobile banking service quality attributes, customer satisfaction and loyalty. Thus, the current paper attempted to fill the gap in the literature. The overall research study has been structured based on the conceptual framework built up referring to prior literature. The researcher has used the customer loyalty as the dependent variable, five dimensions of service quality; namely, tangibility, reliability, responsiveness, assurance and empathy, as the independent variables and customer satisfaction as the dependent/ independent

variable. A questionnaire was distributed to collect the data from the sample of 200 customers who are experienced with their mobile banking apps offered by five private commercial banks in Sri Lanka. The study adopted Frequency statistics, Descriptive statistics, Pearson correlation, Regression model and ANOVA to analyze the collected data from the sample. Research findings show that all the mobile banking service quality attributes are positively related to customer satisfaction and thereby customer loyalty in the mobile banking sector in Sri Lanka. Among the service quality determinants, Reliability, Assurance and Responsiveness play a pivotal role in customer satisfaction since they demonstrate high positive correlation with customer satisfaction while Tangibility and Empathy shows the medium positive correlation with customer satisfaction. The results of this study lead to an interesting managerial implications when improving the quality of mobile banking services for greater customer satisfaction and customer loyalty in the mobile banking sector in Sri Lanka.

Key words: Mobile banking, Service quality, Customer satisfaction, Customer loyalty

1. Introduction

1.1. Background of the Study

The evolution in communication technology and the changes in consumer behavior has had a significant impact on how customers perceive and use banking services. Thus, today the banking industry focuses on E- Banking technologies to provide branchless banking service to the customers. E-banking provides convenient, speedy and dependable service to the customers (Nupur, 2010). Mobile banking service is a type of E-banking service which has become very popular among bank customers in the recent years.

Mobile banking refers to the provision and use of banking and financial services through mobile telecommunication devices such as mobile phones or tablets (Goyal 2012). The scope of services offered through mobile banking vary from non-transactions based information providing services such as SMS alerts on transactions to a range of transactions based services such as fund transfers, balance inquiry,

transaction history, payments settlement, cheque book requests etc. These services are accessible via mobile web browser or a downloadable mobile banking application. Mobile banking applications have surpassed the mobile web channel in completeness of the offer, due to the fact that additional capabilities of mobile devices make possible advanced features and applications. (Fenu, G. & Pau, P., L. 2015).

The rapid growth of mobile technology and the ever-growing ubiquity of mobile devices over the years, have resulted in mobile banking to evolve from a simple information delivery channel to a comprehensive banking transaction channel. Therefore, banks are increasingly investing in mobile technology. At present, domestic commercial banks in Sri Lanka are offering some flavor of mobile banking services. The challenge now for Sri Lankan banks is to develop and execute a mobile banking strategy that creates value for customers and encourages them to switch to the mobile channel. (Sunari, 2014). A big challenge in front of mobile banking services in Sri Lanka is increasing customer loyalty through providing mobile banking services in a highly competitive market.

Moreover, Mobile banking service quality level and its effect on customer satisfaction and customer loyalty is a crucial matter to investigate. Therefore, the main aim of this study is to find the interrelationships between mobile banking service quality, customer satisfaction and customer loyalty in local commercial banks in Sri Lanka. This will provide important managerial guidelines and strategic direction for mobile banking service providers in Sri Lanka.

1.2. Problem Statement

The latest form of mobile banking, which is through Mobile Apps has gained vast popularity across the world due to enhanced usage of smart-phones. New generation of mobile banking applications offer several comprehensive features such as richer user interface and mobile device specific interface, enhancing customer experience.

In the global context, it is observed that many banks have been offering mobile banking through downloadable applications. Sri Lanka is no exemption, where most of the banks have taken an incremental approach in their mobile banking offerings, starting with basic SMS banking and gradually moving to add other technologies by way of

mobile banking applications. Mobile banking if implemented properly can affect every aspect of banking business models, from customer acquisition and retention through costs and revenues to long-term brand identity. (Kazi Omar, 2011)

The banking sector in Sri Lanka is highly competitive. At present, the domestic commercial banks in Sri Lanka are offering mobile banking applications to their customers. With emergence of new technology in the mobile banking sector, the biggest challenge in front of mobile banking services in Sri Lanka is increasing customer loyalty through providing mobile banking services in a highly competitive market.

Several studies have been conducted to prove the links between service quality, customer satisfaction and customer loyalty. In Sri Lanka, only a handful of studies have investigated these links regarding mobile banking application. The purpose of this study is to fill this gap. The interrelationship between mobile banking service quality, customer satisfaction and customer loyalty may provide creative ideas for improving services in order to gain the customer loyalty and competitive advantage in mobile banking in Sri Lanka.

1.3. Research Objectives

The main aim of this study is to find the interrelationships between mobile banking service quality, customer satisfaction and customer loyalty in domestic commercial banks in Sri Lanka. Based on the problem statement following research objectives have been formulated.

Research objectives:

- To identify the mobile banking service quality attributes that influence customer satisfaction in domestic commercial banks in Sri Lanka
- To identify the critical factors that affect the customer loyalty in mobile banking in Sri Lanka
- To identify the interrelationships between mobile banking service quality, customer satisfaction and customer loyalty

2. Literature Review

2.1. Mobile Banking

Mobile banking is a wireless communication channel for creating value by customers in banking transactions (Taghavi et al., 2010) and it is an application of m-commerce which enables customers to access bank accounts through mobile devices to conduct and complete bank-related transactions (Kim et al., 2009). Zhou et al. (2010) defined mobile banking as the use of mobile devices such as cell phones and personal digital assistants to access banking networks via the wireless application protocol. Mobile banking is defined as “a form of banking transaction carried out via a mobile phone” (Amin et al., 2007). Mobile banking is considered as an alternative and innovative method to access banking services via a channel through which the customer interacts and completes bank related transactions such as checking the balance, checking the account status, transferring money and selling stocks. (Luo et al., 2010)

“Mobile banking is a service which provides banking facilities with the help of mobile phones. It helps customers to know about their account information with the help of SMS. Mobile banking not only gives the account information but it provides transaction and payment facilities such as bill payment and shopping payment and other bank services also can be provided with the help of mobile banking so mobile banking is very useful and provides all facilities from anywhere and anytime with the help of mobile banking. According to the mobile banking services it can be divide on two types first one is SMS banking, SMS banking refers to provide the account information through the SMS whenever you use transaction from your account it alert you about your transaction whenever you transact from your account with your ATM or at the transaction at the shopping time it will alert you via SMS this facilities help us with any unauthorized transaction and alert about transact amount, time and place of transaction which helps to detect the unauthorized transaction. Second one is Application based banking, which refers to providing the banking facility via mobile with the help of mobile application. These facilities are available for use in smart mobile phones by downloading applications of banking services. It provides access to and manage our account with the help of mobile banking.” (Tiwari et al., 2014).

2.2. Service Quality

In the competitive business world, service quality is considered as a competitive factor of the Organizations. Moreover, it is also considered as an essential determinant that allows an Organization to differentiate from other Organization. It helps an Organization to gain sustainable competitive advantage. (Siddiqi, 2011). Zeithaml defines service quality as “the extent to which customers’ perceptions of service meet and/or exceed their expectations”. “A global judgement or attitude relating to a particular service; the customer’s overall impression of the relative inferiority or superiority of the organization and its services. Service quality is a cognitive judgement”. (Fogli, 2006, p.4). Bitner & Hubert (1994) mentioned that service quality is an attitude which is formed on the basis of long term evaluation of the service quality and attitudes considered as parallel constructs.

A qualitative research was conducted by Parasuraman et al. in 1985 to investigate the concept of service quality and they arranged an in-depth interview with the executives and focus group interviews to develop a service quality model. They identified ten key determinants of Service Quality. They are Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding and Tangibles.

In 1988, Parasuraman arranged quantitative research and revealed an instrument called SERVQUAL which can be used to measure the perception of customers regarding service quality. They collapsed their dimensions from ten to five. Accordingly, the dimensions of SERVQUAL model were:

1. Tangibles: Physical facilities, appearance of personnel and equipment. Materials such as form, posters, leaflets, pamphlets of Mobile Banking service providers, Outlets of mobile banking agents, Physical facilities of mobile banking service providers. (Rahman, 2017)
2. Reliability: Ability to perform the promised service dependably and accurately. Rahman (2017) defined ‘Reliability’ as quick and speedy mobile banking service, error free service, sufficient number of mobile banking service agents. Reliability is the extent to which the service is delivered to the standards expected and promised. (Siddiqi, 2011)

3. Responsiveness: Willingness to help customers and provide prompt service. Rahman (2017) indicates that 'Responsiveness' regarding mobile banking service is the willingness of mobile banking service agents to help the customers and responsive service providers. Siddiqi (2011) mentioned that responsiveness refers to the willingness and ability of the service provider to meet and adapt to customers' needs.
4. Assurance: Ability of the organization's employees to inspire trust and confidence in the organization through their knowledge and courtesy. (Guarantee competence, courtesy, credibility and security to customers by organization's employees using their knowledge). Rahman (2017) mentioned that assurance refers to the safety of mobile banking transactions, knowledge sufficiency of service providers to answer questions and Courteous behavior.
5. Empathy: The ability to understand and share the feelings of customers or personalized attention given to customers. Rahman (2017) mentioned that 'Empathy' means personal attention given by the mobile banking service providers and agents, convenient operating hours.

This model focuses on the core areas where managers need to take attention and action to improve Service Quality. Parasuraman (1988) mentioned that SERVQUAL can help service and retailing organizations in assessing the expectations of customers and service quality perceptions. Further, Parasuraman (1988) defines service quality as "the differences between customer expectations and perceptions of service". This service evaluation method has been proven consistent and reliable by some authors (Brown et al., 1993).

2.3. Customer Satisfaction

According to Oliver (1980), the customer satisfaction model explains that when the customers compare their perceptions of actual products/ services performance with the expectations, then the feelings of satisfaction have arisen. He mentioned that disconfirmation is created by any discrepancies between the expectations and the performance and they identified three types of disconfirmation as Positive disconfirmation (customers are highly satisfied), Negative disconfirmation (customers are highly dissatisfied) and Zero disconfirmation (when product/service performance = expectations). This definition is supported by Tse & Wilton (1988). They define

customer satisfaction as “the customer’s response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service as perceived after its consumption”. Satisfaction can also be a person’s feelings of pleasure that results from comparing a product’s perceived performance or outcome with their expectations. (Kotler & Keller, 2009).

Surprenant and Churchill (1982) mentioned that customer satisfaction is one of the most important outcomes in the marketing literature and it serves to link processes culminating purchase and consumption with post purchase phenomena such as attitude change, repeat purchase, and brand loyalty. Customer satisfaction means that a customer or the user of service is well contented with the performance. (Johnson and Fornell, 1991). It can also be stated as the overall evaluation of a customer either positive or negative for the services. (Woodruff, 1997).

Giese and Cote (2000) identified following components of satisfaction;

- Customer satisfaction is one kind of response; either cognitive or emotional
- The response emphasizes a particular focus such as product, consumption experience, expectations etc.
- The response occurs at a particular time (it may be after the choice, based on accumulated experience, after consumption etc.)

Mensah (2010) explained that “Customer satisfaction has been one of the main concerns of banks of late”. Both banks and customers attach much importance to satisfaction. The banking industry always intensifies its efforts to satisfy their customers through providing quality services. Further he clarified that it stems from the stiff competition and banks trying to retain their old customers & persuade new ones. Westbrook and Oliver (1991) highlighted that satisfaction arises when customers cognitively compare actual performance with expected performance. Kotler (2009) mentioned that satisfaction is a post purchase evaluation of products or services taking into consideration the expectations. However, Abdullah and Rozario (2009) suggested that the determination of customer satisfaction is difficult since it is affected by various types of internal and external factors.

2.4. Customer Loyalty

Loyalty is a marketing strategy used by the majority of marketers to enhance the profit but some people think that it is very tough to make it possible. Consumer faith can be recognized if marketers try to understand the facts which affect loyalty and it will also benefit in building the customer reliability. (Mao, 2010). Customer loyalty is “the market place currency of the twenty-first century” (Singh and Sirdeshmukh, 2000). The statement provided by Ndubisi (2005) and Pfeifer (2005) shows the importance of customer loyalty. They pointed out that the cost of serving a loyal customer is five or six times less than a new customer. Walsh et al. (2005) mentioned that it is better to look after the existing customer before acquiring new customers. According to Gee et al. (2008), following are the advantages of customer loyalty:

- The service cost of a loyal customer is less than new customers
- They will pay higher costs for a set of products; and
- For a company, a loyal customer will act as a word-of-mouth marketing agent

Customer loyalty relates to what customers think and do or try to do. (Foss and Stone, 2001) Further, they mentioned that most customer loyalty experts would agree that loyalty is best defined as a state of mind, a set of attitudes, beliefs, desires etc. Loyalty is developed by approaches which reinforce and develop a positive state of mind and the associated behaviours. The exchange of information is one of the keys of loyalty, and provides a critical bridge between state of mind and behaviour. Loyal customers are more likely to give information to the service provider (because they trust the service provider and expect from the service provider to use the information with discretion and to their benefits). Managing loyalty is important because it means not only managing behaviour but also managing a state of mind.

Bloemer et al. (1998) and Dick and Basu (1994) stated that most research on customer loyalty has focused on brand loyalty; on the other hand, a limited number of researches on customer loyalty have focused on service loyalty. Bloemer et al. (1998) argued that the findings in the field of brand loyalty did not generalize to service loyalty for the following reasons:

- Service loyalty is dependent on the development of interpersonal relationships as opposed to loyalty with tangible products.

- In case of services, the influence of perceived risk is greater.
- Intangible attributes such as confidence and reliability are the important factors to maintain the customer loyalty in the service context (Dick & Basu, 1994).

They identified the two dimensions of loyalty as;

- Relative attitude and
- Repeat patronage behaviour

Based on above dimensions they identified four categories of loyalty as follows;

- Loyalty (positive relative attitude, high repeat patronage),
- Latent loyalty (positive relative attitude, but low repeat patronage),
- Spurious loyalty (low relative attitude, high repeat patronage), and
- No loyalty (low on both dimensions).

Salegna and Goodwin (2005) mentioned that if the attitude of a customer is poor within the industry, then an organization which has just better than “poor” could elicit a positive customer “relative attitude” score and high repeat patronage. Garland and Gendall (2004) supported Dick and Basu’s loyalty typology in the case of personal retail banking. They mentioned that a loyal customer uses few banks, the highest likelihood of increasing business with the main bank, and the lowest probability of defection from that bank. Regression analysis disclosed that attitude and behaviour were the most important determinants of the number of banks used. Haroon (2010) observed that customer’s services play an important role in increasing the customer loyalty and customers highly consider the price of these services. Customers loyalty based behaviours are dependent on numerous factors. If firms want to optimize the loyalty behaviors of customers, they must balance and manage different aspects of customer experience. (Prof.Gopalkrishnan et al., 2011). Alfansi (2010) observed that service failures significantly influence the complaint behaviour, and complaint behaviours in return influence the switching behavior and switching behaviours and service failures then influence the brand trust and brand trust influences the customer loyalty.

Methodology

The current study has been structured based on the following conceptual framework, by applying traditional SERVQUAL model.

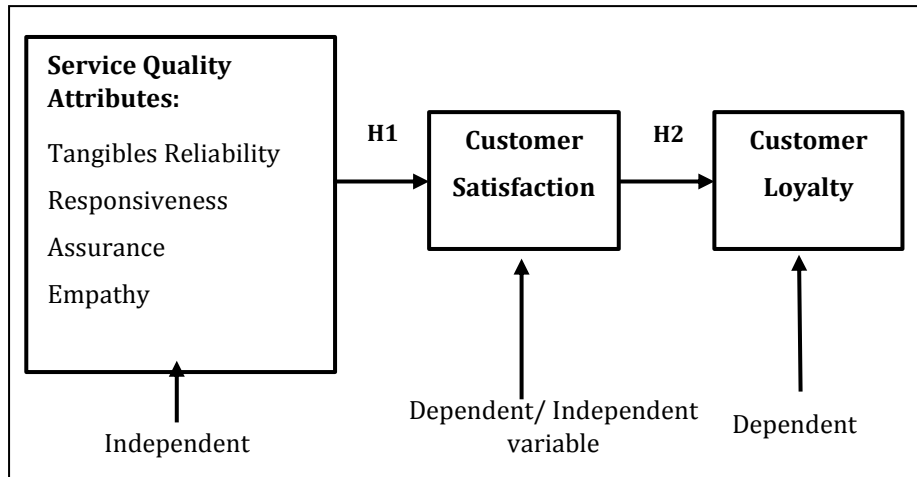


Figure 01 – Conceptual Framework

2.5. Hypotheses

H1: Mobile Banking Service Quality attributes – Customer Satisfaction:

Based on the literature review and conceptual framework, it can be assumed that there is a positive relationship between mobile banking service quality and customer satisfaction. Therefore, the development of hypothesis between mobile banking service quality and customer satisfaction are as follows:

H1 a1: There is a positive correlation between tangibles and customer satisfaction in mobile banking industry in Sri Lanka.

H1 a0: There is no correlation between tangibles and customer satisfaction in mobile banking industry in Sri Lanka.

H1 b1: There is a positive correlation between reliability and customer satisfaction in mobile banking industry in Sri Lanka.

H1 b0: There is no correlation between reliability and customer satisfaction in mobile banking industry in Sri Lanka.

H1 c1: There is a positive correlation between responsiveness and customer satisfaction in mobile banking industry in Sri Lanka.

H1 c0: There is no correlation between responsiveness and customer satisfaction in mobile banking industry in Sri Lanka.

H1 d1: There is a positive correlation between assurance and customer satisfaction in mobile banking industry in Sri Lanka.

H1 d0: There is no correlation between assurance and customer satisfaction in mobile banking industry in Sri Lanka.

H1 e1: There is a positive correlation between empathy and customer satisfaction in mobile banking industry in Sri Lanka.

H1 e0: There is no correlation between empathy and customer satisfaction in mobile banking industry in Sri Lanka.

H2: Customer Satisfaction – Customer Loyalty:

Based on most of the researchers' findings, the development of hypothesis for the relationship between customer satisfaction and customer loyalty can be as follows:

H21: There is a positive correlation between customer satisfaction and customer loyalty in mobile banking industry in Sri Lanka.

H20: There is no correlation between customer satisfaction and customer loyalty in mobile banking industry in Sri Lanka.

Population	: People who use mobile banking application offered by the selected five domestic commercial banks in Sri Lanka
Sample	: 200 customers
Sampling technique	: Simple random sampling method

Data collection method : A questionnaire was designed in Google Docs and sent to customers via email. It was designed as follows.

- First part -Demographic factors of respondents.
- Second part -Service quality attributes which consists with fifteen questions.
- Third part -Customer satisfaction.
- Final part -Customer loyalty.

Subsequently, 200 filled questionnaires were gathered within 4 weeks and used for this analysis.

Data analysis techniques : Frequency statistics, Descriptive statistics, Pearson correlation, Regression model and ANOVA. The SPSS software version 20 was used to analyze the data.

Source: Author developed

Results/ Analysis and Discussion

2.6. Frequency Statistics

Analysis of the data indicated that out of the 200 respondents, 53.5% of respondents were males. Majority of the respondents fell in the age range of 21 – 30, that is 44%; 29.5% of respondents fell in the range of 31-40, 14.5% of them fell in the range of 41-50, 7.5% of the respondents belonged to under 20 age category and 4.5% belonged to above 50 age group. Respondents were also asked about their qualification and out of total respondents, 23.5% were graduates, 10.5% were post graduates and 10% were undergraduates. When considering the income level of the respondents, 49% of them earn a monthly income between Rs. 35, 000 – 70,000, 27% of them earn more than Rs. 70,000 and rest of the respondents earn a monthly income below Rs. 35,000. Based on the statistics regarding the profession of the respondents, 20.5% of them are business holders, 23.5% are government employees and 20% of them are private sector employees. Majority of the respondents are savings account holders; that is 46%.

2.7. Descriptive Statistics

Based on the 200 samples, Tangibility ranges from 2.33 to 4.67 with the Mean of 3.6 and the Standard Deviation of 0.589. Reliability ranges

from 2.25 to 4.75 and the Mean and Standard Deviation is 3.81 and 0.563 respectively. For Responsiveness, Mean and Standard Deviation is 3.68 and 0.512 respectively with the minimum and maximum value ranges from 2 to 4.67. Assurance ranges from 2 to 4.67 and the Mean and Standard Deviation is 3.69 and 0.594 respectively. Empathy ranges from 2 to 5 and the Mean is 3.62 and the Standard Deviation is 0.568. The minimum and maximum value for Customer Satisfaction is 3 and 5 respectively and the Mean and Standard Deviation is 3.9 and 0.68 respectively. Customer Loyalty ranges from 2.6 to 4.6 and the Mean and Standard Deviation is 3.82 and 0.430 respectively. It has been observed that almost all the Mean values of five dimensions are similar which shows that customers are slightly satisfied with mobile banking service quality of the banks whereas the mean value and the standard deviation of customer loyalty shows that they are loyal to their banks.

2.8. Pearson Correlation Analysis

Pearson correlations has been used to test the hypotheses proposed in this study.

Recalling the first research objective, hypotheses were used to examine the correlation between the service quality attributes and customer satisfaction in the mobile banking sector in Sri Lanka. All the hypotheses were considered under the assumption of having a positive correlation between each service quality attribute and the customer satisfaction.

Recalling the second research objective, the following hypothesis was used to examine the correlation between the customer satisfaction and customer loyalty in the mobile banking sector in Sri Lanka. It was also assumed that there is a positive correlation between customer satisfaction and customer loyalty in the mobile banking industry in Sri Lanka.

Table 01: Pearson Correlations

		Customer Satisfaction	Tangibility	Reliability	Responsiveness	Assurance	Empathy	Loyalty
Customer Satisfaction	Pearson Correlation	1	.463**	.593*	.527*	.587**	.455**	.631**

Sig. (1-tailed)		.000	.000	.000	.000	.000	.000
N	200	200	200	200	200	200	200

Source: Author developed

According to the above table since the p-values are less than 0.01 all the null hypotheses were rejected. Reliability, Assurance and Responsiveness have large positive correlation with customer satisfaction while Tangibility and Empathy have medium positive correlation. It can be concluded that customer satisfaction is positively (large) related to customer loyalty in the mobile banking sector in Sri Lanka. It implies that as customers are satisfied, there is a high chance for loyalty.

2.9. Multiple Linear Regression Analysis

According to the Regression Model Summary, R square value of 0.571 indicates that the model explains about 57.1% of the relationship between mobile banking service quality and customer satisfaction in the mobile banking sector of Sri Lanka.

The ANOVA table depicts that the model is well fitted in explaining customer satisfaction in mobile banking in Sri Lanka. Since the calculated F value is 51.559 which is greater than the critical value and the significant level is less than 0.05 it can be concluded that there is a significant impact of independent variables on dependent variables. Therefore, customer satisfaction level depends on mobile banking service quality dimensions of different banks in Sri Lanka.

Table 02: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.345	.215		1.245	.521
	Tangibility	.187	.063	.162	2.975	.003
	Reliability	.286	.076	.236	3.754	.000
	Responsiveness	.259	.074	.195	3.527	.001
	Assurance	.309	.067	.270	4.617	.000

Empathy	.248	.062	.207	3.999	.000
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a. Dependent Variable: Customer Satisfaction

Source: Author developed

Above table indicates the relationship between level of customer satisfaction and each SERVQUAL dimension. When t value is greater than 2 and p- value is less than 0.05, null hypothesis is rejected.

Based on the standardized coefficients given above, the following regression equation can be derived.

$$\text{Customer Satisfaction} = 0.162 + 0.236 \text{ Tangibility} + 0.195 \text{ Reliability} + 0.270 \text{ Responsiveness} + 0.207 \text{ Assurance} + 0.207 \text{ Empathy}$$

3. Conclusion and Implications

The findings of the study depict that mobile banking service quality attributes considered under the study are positively related to satisfaction of customers where customer satisfaction has a higher positive correlation with the loyalty of customers in the Sri Lankan mobile banking arena.

Reliability has the highest positive correlation with customer satisfaction in the mobile banking sector among all the attributes under study and the attribute of “Assurance” has the highest impact on customer satisfaction. This study highlights that responsiveness and customer satisfaction is positively correlated. The attribute which relates to Tangibility has the least impact on customer satisfaction while Empathy reveals the least positive correlation with customer satisfaction in mobile banking sector in Sri Lanka.

4. Recommendations

Mobile banking application providers in Sri Lanka should emphasize and address all the service quality dimensions in the process of new mobile banking services development and also in the process of policy formulation in order to create a loyal mobile banking customer base. Banks should prioritize customer satisfaction by emphasizing more on

assurance, reliability and responsiveness attributes and ultimately it will enhance the loyalty of customers.

Since the attribute which addresses the Assurance highly impacts on customer satisfaction, it is recommended that to implement a wide range of security and control measures in relation to biometric authentication such as fingerprint, facial recognition, iris scanning and end to end security architecture in order to ensure the confidentiality upon customer details and transactions against dynamic malware. To be more reliable, banks should enable customers to perform banking activities with minimal steps in the rapidest way via the mobile banking app. Further, the management of banks who offer mobile banking platforms should implement stern efforts to enhance the skills of employees through training and development in order to address customer concerns and to resolve issues from the end of the customers.

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