Factors Effecting the Customer Satisfaction in E-Banking Services in Jaffna.

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Abstract

The purpose of this research is to analyze the factors influencing on customer satisfaction in E - banking services in the banks. A total of five hundred customers of banks were surveyed via Systematic quasi-random sampling, and factor analysis, regression were used to test the model in this research. A total of eight factors influencing on the customer satisfaction such as brand image ,customer expectation, perceived quality, perceived value ,customer complaint, customer services, price tolerance and repurchase were identified through literatures. Most influencing four factors were identified such as perceived quality, perceived value, and brand image and customer complaint through exploratory factors analysis. Perceived value was identified as most influencing factor via regression model.

Research is limited to the area and the time given to the research work. In future studies it would be interesting to include other factors influencing on customer satisfaction and other services sectors. Findings of the study will help the practitioners to design strategies for giving customer satisfaction through e-banking services in banks.This research is extended from past researches to reduce the research gaps in the customer satisfaction in e-banking services.

Keywords – customer satisfaction, banks, factor analysis

Introduction

Electronic banking is the modern delivery style of banking services. Mostly, e-banking can be defined as an electronic connection between a bank and a customer that simplifies to prepare, manage and control a financial transaction. Electronic banking is offered on different platform, including internet banking telephone banking, mobile phone banking, mobile money TV-based baking and PC banking .The degree of adoption of each of these channels varies from country to country. But Sri Lanka has experienced a phenomenal growth in electronic banking services during the last decade.

Private Banks, public banks and financial institutions have introduced a variety of e-facilities in recent times in SriLanka. Online banking includes facilities such as balance inquiry, check status, stop payments, bill payments, inward remittances and fund transfers. Internet banking customers can also access from anywhere in the world on mobile phones. The use of mobile telephones is rapidly growing in Sri Lanka, and most of the internet banking services can now be accessed through mobile phones. Here obviously know the banks in Sri Lanka is the rapid expansion of the banking network.

Customer satisfaction is another significant aspect in the performance and competitiveness of banks (Keisidou et al., 2013; Chavan & Ahmad, 2013; Belás, Chochoľáková, & Gabčová, 2015).Therefore Broad customer care and the bank customer's satisfaction arevery important things to bankers. In this context Burianová & Paulík (2014) state that the monitoring and measuring customers' satisfaction plays very important role in commercial banks. Today many banks use the e-banking as a competitive tool to achieve the customer satisfaction broadly.

Numerous studies have been undertaken to examine issues in the wider context of e-banking practices and customer satisfaction, even though comprehensive research in the area of e-banking practices and customer satisfaction in the specific context of Sri Lanka has been rather limited.

The main purpose of this study to investigate factors influencing on customer satisfaction in E-banking. Furthermore, the findings of this study ensures the useful practical implications for the banks and financial institutions to enhance customer satisfaction viz e- banking. As a result, the findings of this study may strengthen e-banking services and customer satisfaction of existing banks and those who are planning to provide the services in future.

Objectives of the Study

- To identify the factors influencing on customer satisfaction in E-banking services.
- To identify the most influencing factors on customer satisfaction in E-banking services.

1. Literature Review

In this section, this study review the relevant literature on E-banking and customer satisfaction

1.1 E-banking

E-banking, a term used for new age banking system, represents an automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. It is a service that provides customers the opportunity to gain access to their accounts, execute transactions, and obtain information on financial products and services through a public or private network, including the Internet.

SCN Education B.V. (2001), suggested that E-Banking has advantages like high revenue generators, there are few banks who provide services online on internet, they are considered as leader of technology

implementation and have better brand image than other banks; costs are reduced on providing services online, such banks are efficiently judge the needs of their customers because of regular feedbacks

1.2 Customer satisfaction

Kotler and Armstrong (1993) stated that consumer/customer satisfaction is determined by the relationship between the customer's expectations and product's perceived performance. Customer satisfaction is important because a company earns sales from new customers and retained customers. Satisfied customers buy a product again, talk favorably to others about the product, pay less attention to competing brands and advertising. The performance of a company in terms of the quality of its product/services leads to customer satisfaction .

Customer satisfaction is an overall attitude towards a service provider (Levesque and McDougall, 1996) or an emotional reaction to the difference between what customers anticipate and what they receive (Zineldin, 2000). Anderson and Srinivasan (2003) defined customer satisfaction as the contentment of the customer with respect to his or her prior purchasing experience with a given service firm. It is a judgment that a product or service feature, or the product or service itself, provide a pleasurable level of consumption-related fulfillment.

There are several studies focusing on the relationships between customer satisfaction, and e-banking practices in the western perspective (Adapa & Cooksey, 2013; Casaló et al., 2008). But in a developing country like Sri Lanka, there is still a lack of studies that analyses the formation of above concepts. Whilst, there is a huge need for this kind of study in the northern part of Sri Lanka in the post war context, the aim of this study is to examine the factor influencing on customer influence in e- banking services. Moreover the finding of this study helps the banks and financial institutions which are operating in this region to formulate the appropriate strategies to build customer satisfaction in the context of electronic banking.

2.3 Dimensions of customer satisfaction in e-banking services

Perceived quality is the consumer's judgment about an entity's overall excellence or superiority (Zeithaml, 1988). Perceived quality factors that have an actual impact on customer satisfaction or sought to develop strategies for quality improvement.Anderson & Sullivan (1993)authors considered perceived quality as an antecedent of customer satisfaction and found evidence for a direct relation. Iglesias and Guille´n, (2004) revealed that perceived quality has a direct and positive influence on the level of customer satisfaction. In line with above facts, perceived quality has substantial effects on customer satisfaction . Therefore, it is expected that,

H1: perceived quality effect the customer satisfaction in e banking services

perceived value is the consumer's overall evaluation of a product based on perceptions of what is received and what is given (Zeithaml, 1988); it is also considered the fundamental basis for all marketing activities .Four dimensions of customer perceived value, i.e. social, functional, epistemic and emotional value dimensions are analyzed. Functional, social and emotional dimensions have been generally analyzed in different contexts by various researchers and are described further in accordance with Smith and Colgate (2007). Functional value is related to the extent to which a product or service is useful due to its characteristics, desired functions, reliability, performance quality, effectiveness, etc.). Social value – relational or network benefits, connectedness, personal interaction, developing trust or commitment, and responsiveness; it also may include self – image. Emotional value could be described by the extent to which a product creates appropriate feelings and emotions for the customer (e.g., aesthetics,

pleasure, fun, excitement, adventure, etc.). Epistemic value deals with a curiosity provided by product/service, novelty and desire for knowledge, finding out new content, testing new services, i.e. "value from learning new ways of doing things" .Perceived customer value has been recognized in marketing research as an important concept in influencing preference and customer satisfaction (Cronin et al., Overby & Lee, 2006). Which reveals that customer perceived value leads to customer satisfaction, As a consequence, researches formulate the following hypothesis:

H2: perceived value effect the customer satisfaction in e banking services

The branding is considered as the procedure of creating a brand image which keeps consumers. It is what separates identical products from each other, or its competitors. Marketing literature including NCSI and ACSI literature examined positive of the link between the satisfaction and the brand image, the brand reputationand indicates that, the nature and amount of a consumer's experience with an evoked set of brands. Brand reputation has significant impacts on customer satisfaction (Woodruff et al 1983). Therefore, in this study, researchers propose that:

H3: Brand image effect the customer satisfaction in e banking services

Customer satisfaction is an" evaluation of perceive discrepancy of superior expectation and actual performance of product" (Oliver; 1999).A research done by (Oliver 1981) Customer satisfaction is a positive response from customer after the use of product or services. According to research, company becomes competitive and successful if customers are satisfied with the performance of product or services. (Hennig and Klee, 1997).Results of the study revealed that product and service performance meet or exceed from customer expectation leads to customer satisfaction.

Price tolerance is closely related to the concept of consumer surplus: "the excess of the price which a man would be willing to pay rather than go without having a thing over what he actually does pay is the economic measure of his satisfaction surplus" .Consequently, we might expect customers to have greater price tolerance for products providing greater satisfaction.

It is one of the essential pillars of customer service, customer retention and customer delight, and it's a smart business to understand why customers complain, so you can stop complaints from happening in the first place. Understanding why customers complain, and addressing concerns before they happen might save time .That leads to the customer satisfaction. Every organization which has orientation to the customers (customer oriented) need to provide easy and comfortable chance and access to their customers to deliver their suggestion, critics, opinion and complaint (Tjiptono, 2005:210). Complaint is one part of negative expressions resulted by unsuitability and gap between reality and someone's expectation .Customers' complaint behavior is term which cover all customers action if they feel unsatisfied with a purchase or service. Therefore, it is hypothesized:

H3: customer complaint effect the customer satisfaction in e banking services.

3. Methodology
3.1 Sampling and data collection

Systematic quasi-random sampling was used to collect the data from a sample of 500 customers who use the e -banking from Bank of Ceylon, Peoples' bank, HNB, Commercial bank, Sampath bank and in

Jaffna district. A questionnaire was used to collect the data.The questionnaires were administered by e-mail, and personal delivery

3.2 Development of instruments

The survey questionnaire was measured by eight dimensions of brand image, perceived quality, perceived value, customer expectation, customer complaint, customer service ,price tolerance and repurchase of customer satisfaction. The conceptual frame work was formulated. Brand image, perceived quality, perceived value, customer expectation, customer complaint, customer service, price tolerance and repurchase are independent variable and customer satisfaction is dependent variable. The research design used two scales to collect the data. The nominal scale was used to collect personal information about respondents. Five point Likert scale ranging from five (strongly agree) to one (strongly disagree) was used to measure the response of all dimensions of customer satisfaction

3.3 Tests Used for Data Analysis

PSS (Statistical Package for Social Sciences) version 22. 0 was used to compute and analyze the data. The statistical tests used in the analysis of data included descriptive statistics, factor analysis, and regression analysis.

4. Analysis and Results

4.1 Reliability and Validity Analysis

In order to ensure the internal consistency of the measure, a reliability test was conducted using Cronbach's alpha, which was higher than 0.70, indicating strong internal consistency (Creswell, 2005; Hair Jr, Black, Babin, Anderson, & Tatham, 2010). These coefficient values are presented in Table I.As shown in this table, Cronbach's alpha coefficients for all of the study constructs were above 0.7. In addition to that, overall Cronbach's alpha coefficient for all the constructs was 0.833, this suggests that the internal consistency of every construct was within the acceptable limits.

Table I. Reliability Analysis

Constructs	Cronbach's Alpha coefficient
Brand image	0.783
Customer expectation	0.799
Perceived quality	0.822
Perceived value	0.851
Customer complaints	0.839
Customer services	0.843
Price tolerance	0.841
Repurchase	0.841
Customer satisfaction	0.842

4.2 KMO& Bartlett's Test of Sphericity

Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) are commonly used to provide more complex measures for assessing the strength of the relationships and suggesting factorability of the variables (Beavers, Lounsbury, Richards, Huck, Skolits, & Esquivel, 2013). Kaiser (1974) recommends that the accepted index of KMO & Bartlett's Test of Sphericity should be over 0.5. Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study.

Table II KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.951
Bartlett's Test of Sphericity	Approx. Chi-Square	16630.525
	df	231
	Sig.	0.000

In the current study, value for KMO matrix is 0.951, which falls under the range of Marvelous and test value of chi-square is 16630.525, which is significant at five percent level ($p < 0.05$). Hence, data indicate the suitability and appropriateness. Table II summarizes the statistics derived from the analysis in relation to KMO measure and Bartlett's Test.

4.3 Normality of Distribution

Table III skewness and kurtosis

Variables	Skewness	Kurtosis
Brand image	-0.54	-0.993
Customer expectation	-0.571	-0.807
Perceived quality	0.015	-1.614
Perceived value	-0.556	-1.516
Customer complaints	-0.033	-1.078
Customer services	0.042	-2.003
Price tolerance	0.053	-2.002
Repurchase	0.058	-2.002
customer satisfaction	0.789	-2.032

Besides, Skewness and kurtosis values of a data distribution are widely applied to determine normality of a dataset (George & Mallery, 2003; Joanes & Gill, 1998). In this method, normality of a data distribution is assumed, if statistical values of skewness or kurtosis are within the value ± 2.56 (Tabachnick & Fidell, 2007). Therefore Skewness and kurtosis values of each construct are an additional evidence of normal distribution and we can come to the conclusion that the data among all the constructs are normally distributed.

4.4 Test of Multi-Collinearity

Multi-co-linearity indicates the interrelationship among independent variables in multiple regression analysis. Tolerance & VIF values were used in this study to measure multi Collinearity.

Table IV. Test of Collinearity

Constructs	Collinearity Statistics	
	Tolerance	**VIF**
Brand image	0.535	1.868
customer expectation	0.924	1.082
Perceived quality	0.724	1.381
Perceived value	0.601	1.664
Customer complaints	0.692	1.445
Customer services	0.508	1.965
Price tolerance	0.677	1.475
Repurchase	0.616	1.623

As can be seen from the Table IV, Tolerance levels is less than or equal to 1. All constructs are in less than 1 and VIF values should be perfectly below 5. It can be seen clearly that VIF range between 1.082 and 1.868 values which are well-below five. Therefore, researchers suggest that, there is no autocorrelation or high interrelationship among independent variables in this study frame.

4.5Factors Analysis

Customer satisfaction can be measured through eight variables like brand image ,customer expectation, perceived quality, perceived value ,customer complaints, customer services, price tolerance and repurchase. These variables were assessed through different nineteen items such as Serviceability, Features, Aesthetics, Durability, Conformance, Performance, Prices value, Establishments value, Personnel value, Emotional values, Services value, Social values, Superior quality, Expectations regarding reliability, Familiarity, Reputation, Expectations regarding customization, Complaint dealing and Degree of complaint.

Based on the results of the factor analysis obtained four new factors that formed the new indicators. Grouping is done based on the value factor loading. Here are four factors are newly formed.

Table V: matrix of factor loading structure

Items	Components			
	Factor 1	Factor 2	Factor 3	Factor 4
	Perceived Quality	Perceived value	Brand image	Customer complaint
Serviceability	.912			
Features	.900			
Aesthetics	.899			
Durability	.896			
Conformance	.895			
Performance	.890			
Prices value		.902		
Establishments value		.897		
Personnel value		.894		
Emotional values		.893		
Services value		.893		
Social values		.886		
Superior quality			.892	
Expectations regarding reliability			.892	
Familiarity			.891	
Reputation			.889	
Expectations regarding customization			.888	
Complaint dealing				.572
Degree of complaint				.559

The next process to be conducted in this study is naming a new factor which is formed by sort factor loading of each variable from the largest number to the smallest in each component. The establishment of name made subjectively by the author using the biggest factor loading in a component that is used as name of the new factor. Here are names of new factors that just formed such as Factor 1 (perceived quality), Factor 2 (perceived value), Factor 3(brand image) and Factor 4 (customer complaint)Factor 1 –

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perceived quality include nineteen items such as Serviceability, Features, Aesthetics ,Durability ,Conformance and Performance with loading range from 0.912 to 0.890. Factor 2 – **perceived value** consists of six factors such as Prices value, Establishments value, Personnel value, Emotionalvalues, Servicesvalue, Social values with loading range from 0.902 to 0.886. Factor 3-**brand image include** five factors such as Superior quality, Expectations regarding reliability, Familiarity, Reputation, Expectations regarding customization with loading range from to 0.892 to 0.888 Factor 4 – **customer complaint** consists of two factors such as Complaint dealing and Degree of complaint with loading range from 0.572 to 0.559.

Table VI: Matrix of factor loadings structure

Description	Factor 1	Factor 2	Factor 3	Factor 4
	Perceived Quality	Perceived value	Brand image	Customer complaint
Eigenvalue	8.011	4.940	1.833	1.067
Percentage of explained variance	24.402	22.673	20.120	4.856
Cumulative percentage of explained variance	24.402	47.075	67.196	72.051
Number of Items	06	06	05	02

As per the Table VI Matrix of variance explained, the procedure resulted in a eight factor solution such as Factor 1 (perceived quality), Factor 2 (perceived value), Factor 3(brand image) and Factor 4 (customer complaint).These four factors extracted together account for 72.051 % of the total variance with factor 1 (perceived quality),) contributing to 24.402 %, factor 2 (perceived value) contributing to 22.673 %, factor 3 (brand image) contributing to 20.120 %, and factor 4 (customer complaint) contributing to 4.856 %, Table presents eigenvalue of 1 or more, percentage of explained variance for each factor and cumulative percentage of explained variance.

4.6 Hypothesis testing.

H1: perceived quality effect the customer satisfaction in e banking services

H1 is accepted because significance p value is less than 0.05. As per the regression results,It explains that the perceivedquality positively influences on customer satisfaction by 78.7%. .

H2: perceived value effect the customer satisfaction in e banking services
H2 is accepted because significance p value is less than 0.05. As per the regression results. It explains that the perceived value positively influences on customer satisfaction by 88.4%.

H3: Brand image effect the customer satisfaction in e banking services
H3 is accepted because significance p value is less than 0.05. As per the regression results it explains that the brand image positively influences on customer satisfaction by 65%.

H4: customer compliant effect the customer satisfaction in e banking services

H4 is accepted because significance p value is less than 0.05. As per the regression results. It explains that the customer complaint positively influences on customer satisfaction by 48.2%.

5. Discussion and Conclusion

5.1 Objective one: to identify the factors influencing on customer satisfaction in E-banking

To achieve this objective factor analysis was used and four main factors are identified.To find out the factors influencing oncustomer satisfaction in E-banking.Eight constructs were incorporated into a conceptual model as the variables .They are: brand image ,customer expectation,perceived quality ,perceived value, customer complaint ,customer service, price tolerance and repurchase. Then, Items to measure the factors in the study were extracted from multi sources and those are highly related to the field of customer satisfaction. Therefore, EFA is the suited technique to find the unique factors with significant factor loading without cross loading issues. EFA results ensured the unique factors of customer satisfaction as perceived value, perceived quality, and brand image and customer complaint.

5.2 Objective two: to identify the most influencing factors on customer satisfaction in E-banking.

To achieve these objectives multiple regression analysis was used. With the highest beta value .884 perceived value contributes more tocustomer satisfaction. Four hypothesis were used to achieve the objective.

5.3Implications

Researcher found that perceived value, perceived quality, and brand image and customer complaint were the most important factors that affect customer satisfaction in e-banking Therefore, managers should focus on the above mentioned dimensions to enhance the customer satisfaction in e- banking platform. Therefore, banker and e-banking service designers should think over these dimensions and make possible changes in the e-banking services according to the customer's satisfaction and need of the time. It will be helps to enhance customer of e-banking and increase the level of customers' satisfaction in e-banking.

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