



Journal of Internet Banking and Commerce

An open access Internet journal (<http://www.arraydev.com/commerce/jibc/>)

*Journal of Internet Banking and Commerce, August 2014, vol. 19, no.2
(<http://www.arraydev.com/commerce/jibc/>)*

An Empirical Investigation of Internet Banking Service Quality, Corporate Image and the Impact on Customer Satisfaction; With Special Reference to Sri Lankan Banking Sector

ISURI DHARMARATNE ROCHE

Director, Samutthana, The King's College UK, Resource Centre in Colombo

Postal Address: 419, Nawala Road, Nawala, Sri Lanka.

Author's Organizational Website: www.samutthana.org.lk

Email: info@samutthana.org.lk or donmarino@sltnet.lk

Ms. Isuri Dharmaratne Roche is a Director attached to Samutthana, the King's College UK., resource Centre in Colombo and also serves as a Director at Ranaviru Apparels, Sri Lanka Army. She is reading for her PhD in Business Management from The Management and Science University, (MSU) Kuala Lumpur, Malaysia. Her current research interests are the impact of internet banking service quality, Corporate Image on Customer Satisfaction.

Abstract

Technology advancement has modified fundamentals of marketing theories, particularly the banking sector. Internet Banking has emerged as the most critical form of customer interaction, encompassing the structural changes required by the banks to compete within the financial markets. With the emergence of digital channels, banks are confronted with margin pressures and intense competition. In addition the customer's quest for personalized services has intensified with the implementing of internet banking. Service quality is a pre-requisite for customer satisfaction and in a virtual environment the task becomes even more challenging to banks. Despite the explosive growth in internet banking globally, some countries still lag behind the implementation process. Security concerns persist as a salient feature and may be detrimental for the growth of the internet banking. In sequence with prior studies conducted in other countries, Corporate Image is envisioning as a control dimension of Service quality. The present study explores the decipherable antecedents of Customer satisfaction and the deviation

in fundamentals, with the inclusion of Corporate Image, in the Sri Lankan Banking Sector.

Keywords: Internet Banking, Service Quality, Corporate Image, and Customer Satisfaction: Sri Lankan Banks

© Isuri Dharmaratne Roche, 2014

INTRODUCTION

Globalization and technology advancements are potentially confronting the financial sector, primarily the banks. The fierce competition coupled with customer demands has driven the banking industry to further challenges. The global economic downturn and the diminishing margins is a concern for all banks globally. Banks all over the world are striving to decrease costs and increase margins in order to sustain in this competitive environment. The Internet, today, persist a critical channel for selling virtually all goods and services. (A. Parasuraman, 2005).

Internet banking is no longer a phenomenon but rather a pre-requisite for the banking sector envisioning as the most comprehend mode of future banking. 73.5% of U.S. consumers now use online bill payment, (IDC Financial Insights, 2012). Internet banking still remains as the coherent and most cost effective channel for the banks as well as for customers. A significant feature of online Banking or the internet banking permits customers to access their bank accounts 24/7, which is a new experience and intrinsically motivating.

Service Quality is the main factor that determines the success or failure of electronic commerce, (Santos 2003).Inability to measure the service quality is detrimental to the growth of the internet banking. Customers tend to demand equal or higher levels of service quality based on-line than the traditional services, (Santos, 2003).

Traditional service quality differs from e-service quality in terms of delivery of services, former being the traditional interaction and the latter being delivered predominantly through websites. Despite the intensive review of literature, it was observed that no broadly accepted automated service quality model existed, (Al-Hawari et.al. 2009).

Service Quality has been discerned as an important element of Customer Satisfaction and satisfaction translates to Loyalty. As perceived by customers, the necessity to distinguish the service quality dimensions in a technology based banking environment, irrespective of the technology usage, how these dimensions affect customer satisfaction, (Ganguli and Roy, 2011). Satisfied customers would eventually be loyal to their bank. Customer advocacy is envisioned as the best form of recommendation to attract additional customers and also retain present customers. Customer satisfaction may diminish due to lack of confidence they possess in the technology based system.

Problem handling process in the absence of physical interaction is considered crucial. The propensity for customers to abandon transactions may be one potential reason,

whilst using internet banking. In order to compete with the physical interaction, websites ought to enhance the interactivity with customers electronically by way of live chats, e-mail responses and implementing 24 hour hotline. It is apparent that customers who are dissatisfied with the problem handling process may not complain but opt to swing to another bank. The biggest challenge posed through internet banking is, establishing new account is just a click away.

One of the iteratively cited concerns predominantly relating to internet banking is security and Privacy. This was not a stated antecedent of the original SERVQUAL model prefaced by Parasuraman in 1988. The most critical factors for online shopping have been Security and Privacy, (Ranganathan and Ganapathy, 2002).

The importance of corporate image was emphasized in the experience of service quality, by Grönroos (2001). In his study corporate image has the future potential to render as an antecedent of service quality, contributing a key role in enhancing customer satisfaction. Image is a comprehending as a salient factor in the financial sector, as image renders a sense of reliability and confidence to its customers.

INTERNET BANKING IN SRI LANKA

In the post war era, the banking sector is poised to grow rapidly contributing to the country's GDP. 56% of total assets in 2012 were vested in the Financial Sector. This may attribute to the rapid growth of internet penetration within the country. Despite the heavy investments incurred by the banks in implementing internet banking, the usage still persists relatively low.

Sri Lanka recorded a significant economic growth, despite the global economic downturn; the growth in 2013 third quarter was 7.8 and 2014 growth is predicted in the range of 7.3-7.5. Sri Lanka currently has a total of 22 Licenced Commercial Banks consisting of two state banks, 9 private domestic banks and 11 foreign banks. In addition there were 9 Licensed Specialised banks consisting of 6 state banks and three private banks, totalling to 31 institutions, (Central Bank of Sri Lanka, Statistics, 2010).

Sri Lankan banks are poised with the challenge of implementing internet banking in coherent with the standards set by these foreign banks.

Lack of confidence, dissatisfaction, security concerns, and poor service quality could be attributed to the low usage of internet banking; however there is a distinct lack of studies accomplished in Sri Lanka pertaining to service quality and the impact on customer satisfaction. The prevailing banking laws in Sri Lanka impede the ability for studies to be conducted in the financial sector.

Such studies are merely confined to reputed companies and to an individual bank, not to the entire banking sector.

Objective of the Study

1. To identify the specific service quality antecedents and the impact on Customer satisfaction.
2. To ascertain the most significant service quality dimensions contributing to

- customer satisfaction.
3. The role of corporate image on Customer satisfaction.

LITERATURE REVIEW

The number of organizations that are using the web for marketing, promoting and transacting products and services with consumers have increased significantly, (Ranganathan & Ganapathy, 2002). The services provided by banks across the Internet which once included only checking of accounts, have recently evolved to include a full range of banking services, (Kenova & Jonasson, 2006). Internet banking is one influential form of technology-based self-service which is denoted as e-banking, with the dispersion and advent of the Internet medium; the use of e-banking has experienced a dramatic growth (Odd Fredriksson, 2003).

Despite banks attempt to mitigate consumer concerns through offering online accounts that typically attract diluted fees and higher interest, managing the ongoing tension between efficiency and human interaction represents a challenge to banking institutions, (Herington & Weaven, 2009). The distinctive nature of the services, with the emergency of technology, had led to contentions with internet banking. Interestingly, despite the efficiencies created by e-banking, many businesses are still keeping duplicative traditional records, and performing traditional banking tasks that result in less than full implementation of the technology and continued dependency on human interactions, (David Wong et Al. 2008).

Service Quality

Traditional service quality is defined as customers' attitudes or beliefs concerning the degree of service excellence offered in the bank's physical location (Castleberry and Resurreccion, 1989). Service quality is defined as 'Consumers' overall judgement and evaluation of the excellence and quality of e-service offerings in the virtual marketplace' (Santos, 2003).

For the measurement of service quality, in 1985, Parasuraman, Berry and Zeithaml developed the SERVQUAL instrument, which is a gap model for comparison of perception against the expectation. Majority of the research to date has concentrated on measuring service quality using the SERVQUAL instrument, (Kang & James, 2004). However the distinct criticism has been that the instrument mainly centres on the service delivery process, (Grönroos, 1990). Service quality has many dimensions and yet the exact nature of these dimensions may differ, (Brady & Cronin, 2001). Technology has revolutionized the service quality concept and its delivery process. In a technology-mediated environment, measuring service quality is more tedious and challenging [Parasuraman et al. 2005].

E-Service Quality

The scales developed to consumers for measuring website characteristics, some scales focus exclusively on the website interface, while others seek to measure the entire purchase transaction, (Wolfenbarger & Gilly, 2003). E-service is conceptualised by Rowley, (2006) as an interactive information service. The growth in Internet-based services has transformed the manner in which firms and consumers interact, (Yang et al., 2001).

Electronic retailing (in contrast to traditional retailing) is not a single relatively uniform marketing activity (Francis & White 2004). This makes measuring e-service quality a daunting task in an e-service context. Wolfinbarger and Gilly (2003), developed an instrument to measure e-service quality centred on the factors of: website design, reliability/fulfillment, customer service and privacy/security. Key dimensions of Business to customer websites were constructed by Ranganathan and Ganapathy (2002), consisting of information content, security/privacy and design. Gefen (2002) utilized the same SERVQUAL dimension, to test E-service quality. Zeithaml, Parasuraman, and Malhotra's (2000) e-SQ study identified 11 dimensions: reliability, responsiveness, access, and flexibility, ease of navigation, efficiency, security/privacy, assurance/trust, price knowledge, site aesthetics and customization/personalization. Parasuraman et al., (2005) developed E-SQUAL consisting of efficiency, fulfillment, system availability and privacy, n E-RecSQUAL consisting of 11 items encompassing three dimensions of responsiveness, contact and compensation.

SERVQUAL model pioneered by Parasuraman (1985), captured the following variables, consisting of tangible, reliability, assurance, responsiveness and empathy, however the tangibility is replaced by website interface and interaction, as the physical interaction does not prevail in internet banking, (Jayawardhena, C., 2004 & Li. Y., 2009). Floh and Treiblmaier (2006), findings revealed that website quality directly impacts on both satisfaction and trust. In the virtual environment, the tangible elements of e-service should be focused on the website quality/design which constitutes the main access to organizations, (Li, & Suomi, 2009). Nonetheless it is comprehended that web site design is more appropriate for online shopping whilst quality of the site is more crucial for the banking industry. Internet banking is becoming popular and as such measuring service quality is very important, (C. Jayawardhena, 2004). This study incorporates and conceptualizes the measures of service quality as perceived by consumers (Jayawardhena, C., 2004,) in relation to their expectations only, as it possess to be more statistically reliable as the questionnaires are reduced too, (Albert Caruana, 2000). As such, the following hypothesis is established.

Hypothesis *H1*: Web site quality/design has an impact on Customer Satisfaction

Reliability: The ability to perform the assured service accurately and dependably, Parasuraman et al, 1988). In the virtual environment, it is vital to make customers to trust that the organization is delivering what is promised, (Li, & Suomi, 2009). Lee & Lin (2005), emphasized in their study the importance of reliability utilizing the information technology-based service. Reliability dimension as per Zhu et al. (2002) has a direct and positive impact on customer satisfaction. Hence the following hypothesis is established.

Hypothesis *H2*: Reliability has a direct impact on Customer Satisfaction

Responsiveness is the willingness to assist customers and provide prompt services; Assurance: The knowledge and courtesy of employees and their ability to convey trust and confidence. The responsiveness of web-based services analysed by researchers have foregrounded the importance of perceived service quality and customer satisfaction, (Zhu et al., 2002, Yang & Jun, 2002). In e-service, the company provides prompt service to customers, when they have questions through digital media, (Li, & Suomi, 2009). As such the following hypothesis will be tested.

Hypothesis *H3*: Responsiveness has a direct impact on Customer Satisfaction.

Assurance based on Parasuraman et al. (1985, 1988), is the cognition and gratis of employees and their ability to convey confidence and trust. Zhengwei Ma's (2012) results revealed that Assurance is more significant and important than security and privacy. David Gefen's (2002) study describes Assurance was a significant dimension of loyalty through trust. Hence the following hypothesis will be tested.

Hypothesis *H4*: Assurance has a significant and direct impact on Customer Satisfaction.

Empathy: Care and individualized attention provided to customers. Zhengwei Ma's study (2012) concluded that empathy only has a slender impact on customer satisfaction. The results of the research suggest that there is a no significant positive relationship between the empathy and customer satisfaction, (Shankar Chelliah et. al., 2010). Empathy however, positively influences customer satisfaction in the study of Wisanan Ouparami, (2009). Empathy was outweighed by the other service dimensions in achieving customer satisfaction, (David Gefen, 2002). As such the following hypothesis will be tested.

Hypothesis *H5*: Empathy has a direct and significant impact on Customer Satisfaction.

Security and Privacy: It is significantly apparent that negative perceptions regarding security and privacy enhance along with degrees of online proficiency, (Hoffman et.al. 1997). The study further elaborates that consumers who render personal information during transactions seize the risk of having this information compromised. Hence, security is a major concern of online customers on their transactions (Chang and Chen, 2009). A survey conducted by the online banking association in the year 2002 (Canada), revealed that the main concern of the internet banking was the matter of security, (Ganesan & Vivekanandan, 2009). Hence the below hypothesis will be tested.

Hypothesis *H6*: Assurance has a significant relationship with customer satisfaction.

Problem Handling: The dimension in an online context is inevitable, not merely confined to the banking sector but also for online shopping. From the point of view of the customers, lack of physical interaction will invariably warrant for some clarification and problem handling. Limited studies have appended problem handling as a service quality dimension; nonetheless the study of Dr. V. Kumdhar, (2011) did include Problem handling as one of the antecedents. The conceptualization of the complaint handling construct is centred on bank procedures and accomplishes directed at taking care of the problems of customers, (Carvajal et. al., 2011). If problems are not resolved and persists, it then translates to complaints. Hence the following hypothesis will be tested.

Hypothesis *H7*: Problem Handling has a significant and relationship with customer satisfaction.

Corporate Image: For banks to clearly define and differentiate from their competitors, they must be able to build and manage their bank's image, (Cohen et. al., 2006). Further Grönroos, (1984) proposed image as an option to product differentiation.

Similar findings are depicted by Lewis & Soureli (2006), who emphasized the importance of image and propose that relationship marketing, communication, rewards and personalized products deemed as concepts in building a greater image. Hence the following hypothesis will be tested.

Hypothesis *H8*: Assurance has a significant impact on customer satisfaction.

Customer satisfaction, as It is a business term explaining a kind of products or and services and it's about a measurement, provided by a company to meet its customer's expectation, (Chelliah et. al., 2010). Cronin and Taylor, (1992) and Oliver, (1980), proposed that service quality would lead to customer satisfaction or dissatisfaction. For Customer satisfaction, service quality is determined to be a strong predictor, (Dabholkar et. al., 2000). Hence the following hypothesis could be tested.

Relationship between Service Quality and Customer Satisfaction:-

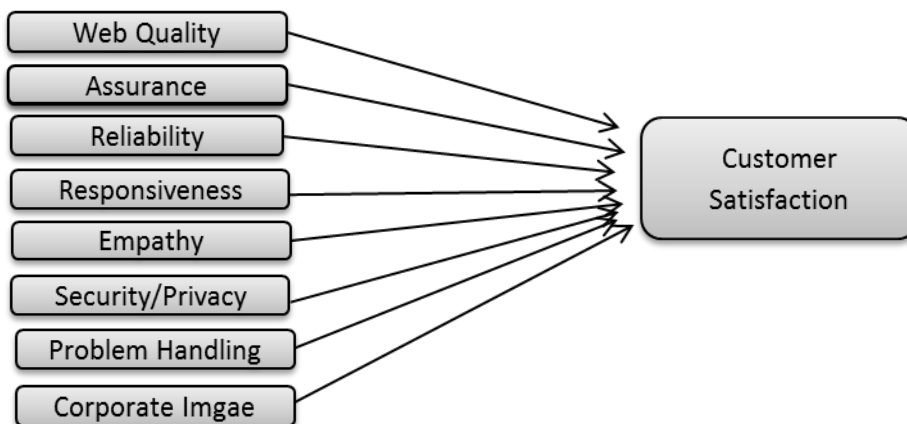
A further disputation has considered whether service quality is an antecedent of satisfaction (Cronin & Taylor, 1992; Parasuraman et. al., 1985). Cronin & Taylor, (1992) emphasized that satisfaction can be procurable with low quality, if one's expectations in a given situation are low and execution is adequate to the task. As such researchers have opted to use performance only scale and proved to be excellent for measuring service quality and customer satisfaction, (Kumbhar, 2011).

Service quality is established to be a strong predictor of customer satisfaction (Cronin & Taylor, 1992; Dabholkar et. al., 2000; Cronin e. al., 2000), particularly in internet services (Kim & Lim, 2001). In case of automated banking service quality dimensions have been found to affect customer satisfaction (Al-Hawari & Ward, 2006). As such Service Quality dimensions are predictors of customer satisfaction, which is tested in this study.

Definitions of the variables of this study:-

Fout! Ongeldige koppeling.

Conceptual Model: - Developed for this study



RESEARCH METHODOLOGY

The present research constitutes a quantitative study which has established a model framework based on extant literature and previous studies pertaining to e-service quality. The basic building blocks of quantitative research are variables, which take on different categories or values, (Sekaran & Bougie, 2009).

The main objective of this study is to ascertain the service quality antecedent's specific for Internet banking customer satisfaction. Exploratory method also used to identify additional attribute of corporate image and its relationship to customer satisfaction.

The research followed the principles of Cronin & Taylor 1992, and Chanaka Jayewardene's, (2004) for which the measurement was based only on the customer perception and not the gap analysis model introduced by Parasurman. A structured web based questionnaire was administered, incorporating a five point Likert scale, indicating 1 as totally disagree, 2 - agree, 3 - Neutral, 4 -agree and 5 - totally agree.

Due to the prevailing banking laws in Sri Lanka, no individual has the access to any personal information of the banking customers. As such the researcher was compelled to adopt convenience-sampling technique for this study. Central Bank of Sri Lanka nor the Banks initially did not possess the statistics pertaining to the number of internet banking customers. At the request of the researcher Central Bank obtained statistics of Internet banking users in Sri Lanka. There were 236,410 internet banking users from Licenced Commercial Banks as at 2010. Sekaran & Bougie (2009) emphasized, that a sample size containing 30 to 500 is deemed appropriate for majority of research studies. This study selected random sample of 1,523 from a list of e- marketing customers obtained from two leading e-marketing companies in Sri Lanka. The study employed only the private internet banking customers from the Licensed Commercial Banks, who had used the services at least for six months.

DATA ANALYSIS

Pilot Test

Initially a pilot test was conducted for 30 respondents selected from academics using e-mail and was administered on-line. The valid and completed responses totaled to 27. Cronbach's Alpha values were calculated, which is commonly used to establish internal consistency of construct validity. All Cronbach's Alpha values in the pilot study exceeded 0.8, which is considered good and the Security/Privacy value was depicted as 0.78, which is considered adequate,(Cronbach L., 1951).

Main Analysis utilized the following methods.

- Calculating mean values using descriptive statistics
- Exploratory Factor Analysis (EFA), which is a data reduction technique that is used widely for the purpose of identifying the underlying dimensions in multivariate data analysis. As such factor analysis was performed to eliminate all highly correlated or redundant variables from the existing data file and replacing the remaining data with a relatively smaller number of variables, (Hair et al., 1998).
- Kaiser-Meyer-Olkin (KMO) and Bartlett's was utilized test to measure of sampling adequacy, statistically it tests, whether the partial correlations among variables

are small, (Value should exceed 0.05).

- Multiple Linear Regression Analysis, was performed to interpret and ascertain the association between quantitative variables, exceeding two.

Total Responses Received = 317.

Total valid responses = 272.

Results

The highest correlation for each item, with at least one other item in the entire seven construct is between 0.3 and 0.9. Thus, all these items correlate adequately in the construct.

In exploratory factor analysis (EFA), the Kaiser-Meyer-Olkin (KMO) statistics: - (Hair et al, 2012).

<u>Variable</u>	<u>KMO</u>	<u>Factors</u>	<u>variance</u>	<u>Items</u>
Website design/quality	0.783 (Good)	single	43%	5
Reliability	0.842 (Excellent)	single	52%	5
Responsiveness	0.769 (Good)	single	43%	5
Assurance	0.768 (Good)	single	50%	5
Empathy	0.755 (Good)	single	47%	5
Security/Privacy	0.833 (Excellent)	single	58%	5
Problem Handling	0.777 (Good)	single	37%	5
Corporate Image	0.810 (Excellent)	single	55%	5
Customer Satisfaction	0.933 (Excellent)	single	54%	10

Stepwise regression analysis was performed, which includes regression models. The choice of predictive variables is carried out by an automatic procedure and the following results were depicted.

The Regression coefficients for **Customer Satisfaction (CS)** upon **Service Quality (SQ)** and **Customer Image (CI)**:-

Table 1.1.

Variables	Unstd. Coefficients		Std Coefficients	t	P-value	VIF
	B	Std. Error	Beta			
(Constant)	-.420	.216		-1.943	.053	
Assurance	.210	.069	.193	3.045	.003	2.697
Problem Handling	.191	.051	.209	3.762	.000	2.071
Corporate Image	.239	.057	.202	4.169	.000	1.570
Security	.145	.056	.144	2.591	.010	2.055
Empathy	.171	.058	.178	2.956	.003	2.424
Reliability	.150	.055	.141	2.732	.007	1.789

Dependent variable: Customer Satisfaction

Table 1.1: Depicts results from the stepwise regression analysis are of Customer Satisfaction (CS) and Corporate Image (CI) upon Service Quality (SQ). When Corporate

Image was appended, the p-value is less than 0.05; as such it is statistically proven that the Corporate Image is a significant indicator of Customer Satisfaction.

The R-Squared value was 0.728. This denotes that 73% of the variation in Overall Customer Satisfaction (CS) can be explain by Service quality dimensions of Assurance, Problem Handling, Security, Empathy, Reliability and Corporate Image (CI).

Variance Inflation factor (VIF), is a measure of multicollinearity, a term coined to express the situation where the independent variables deemed having higher association. Table 1.1 illustrates all VIF values are less than 5, which implies multicollinearity is not present.

The Regression Equation

The regression equation can be composed as $CS = - 0.420 + 0.210 (\text{Assurance}) + 0.191 (\text{Problem}) + 0.239 (\text{Corporate Image}) + 0.145 (\text{Security}) + 0.171 (\text{Empathy}) + 0.150 (\text{Reliability})$.

CONCLUSION

Results revealed that **Corporate Image** is the most significant indicator of Customer satisfaction, followed by assurance, problem handling, empathy, reliability and security/privacy. Corporate Image has a direct and positive impact on internet banking customer satisfaction. Grönroos, (2000), similarly emphasized the importance on Corporate Image which is consistent with the findings of this research. His findings depict that Customer image is a significant indicator of customer satisfaction. A considerable impact of corporate image was revealed in the study of Carvajal et al, (2012). The findings of this study substantiates, the studies of Naser et al. (1999); Chen et al. (2008), that when the bank has a stronger brand image, the customers are further satisfied.

Sri Lankan financial sector has experienced many setbacks, particularly with certain reputed finance companies. Despite these finance companies vested under the purview of The Central Bank of Sri Lanka, the companies have mismanaged funds and were unable to fulfil the obligations of the customers. These occurrences may have fuelled the banking industry customers to consider Corporate Image as an important factor. As such the results revealed that the enhancing Corporate Image is the foremost significant factor in achieving Customer Satisfaction utilizing internet banking in Sri Lanka.

Corporate Image is the most significant predictor of Customer Satisfaction and the following hypothesis is substantiated by this research.

H8: Corporate Image together with Service Quality dimensions has a positive relationship with Overall Customer Satisfaction.

Assurance was rated as the second most significant factor. As explained earlier, according to Grönroos, (2000), assurance is the ability of the employees to trust and confidence to customers and their knowledge and courtesy. Banking customers in Sri Lanka do not have the confidence in the internet banking due to the lack of awareness on their part and also the lack of promotions by the banks.

In an online context, Assurance given by the bank employees is vital in convincing customers to adopt internet banking. Despite the fact that internet banking has no interaction with customers, they still require banking employees to instil confidence in adopting online banking.

The findings of this study was also consistent with the study conducted by W. Ouparami (2009), which revealed that in the presence of Corporate Image, Empathy was a significant dimension on Customer Satisfaction. As such empirical findings and the previous studies substantiate the following hypotheses.

H4: Service Quality dimension of Assurance, when corporate image is included has a significant impact on Overall Customer Satisfaction.

Problem Handling dimension in an online context is inevitable, not merely confined to the banking sector but also to online shopping. From the point of view of the customers, lack of physical interaction will invariably warrant for some clarification and problem handling. The bank managers need to identify the importance of this task, and the most effective approach to inspire customers to use internet banking is taking care of their problems physically. In the Sri Lankan context this is a vital antecedent, as customers may encounter problems and clarifications and prompt attention is deemed a necessity. Technology based banking system is relatively new to the Sri Lankan customers unlike their other South Asian counterparts. This may be due to the implications of the three decade civil war experienced in Sri Lanka.

There was distinctively lack of studies in this area, particularly in the banking sector. Failures to attend to problems may lead to defection of internet banking and leading to conflicts. The customer's clarifications may not end up as conflicts if appropriate action being initiated. Dr. V. Kumbhar's conclusions were in consistent with the present findings which revealed that Problem handling was a significant dimension of customer satisfaction. In addition, his study revealed that the dimension of contact depicted as a less significant indicator. Hence the following hypothesis is supported empirically from this study.

H7: Service Quality dimension of Problem Handling, when corporate image is included has a significant impact on Overall Customer Satisfaction.

Empathy is more significant dimension of Customer Satisfaction than reliability based on the empirical findings. This implies Customers still require that individual attention when deemed necessary due to lack interaction by customers when using internet banking. To enhance internet banking usage, the employees must possess the knowledge and should instil confidence in customers. They should also be courteous, the cost benefits can be reaped only if the customers enhance the usage of technology based services such as internet banking. Technology or the machines cannot entirely replace the importance of the human interaction. As such Empathy still remains a pre requisite for customer satisfaction, with the technology advancements.

The conclusions were consistent with the study conducted by W. Ouparami (2009), which revealed that in the presence of Corporate Image, Empathy was a significant dimension on Customer Satisfaction. On the contrary, their study revealed that the

Corporate Image was directly linked to Customer Loyalty instead of Customer satisfaction.

In addition, the current study was consistent with the study of H. Suomi, (2009) which depicts Empathy as a significant indicator of customer satisfaction.

As per the empirical results, Empathy still remains as a significant indicator of customer satisfaction. Nonetheless Corporate Image, Problem Handling and Assurance factors are greater significant dimensions; the banks should concentrate if they are to achieve customer satisfaction. In sequence with prior studies and the empirical results of this study, strengthen the below hypotheses.

H5: Service Quality dimension of Empathy, when corporate image is included has a significant impact on Overall Customer Satisfaction

Whilst the bank has an image created within the customers mind, and assurance is also instilled, the importance of reliability is impeded. Corporate Image and Assurance compliments reliability, as such with the inclusion of corporate image, the function of reliability is diluted. Nonetheless the importance of reliability still persists and cannot be undermined, particularly in an online context. If a bank has created an image within the financial sector, the reliability is automatically instilled within the customers mind. Since reliability is still a significant dimension of customer satisfaction, bank managers should pay attention to ensure that the customers perceive the bank as a reliable entity.

The findings of this study was consistent with the study conducted by W. Ouparami (2009), which disclosed that in the presence of Corporate Image, Reliability is a significant dimension on Customer Satisfaction. In addition, the study of Lee & Lin (2005) depicted Reliability as the second significant dimension of Customer satisfaction which is consistent with the present findings. Reliability will not only impact Customer Satisfaction but would assist in retaining customers too. As such the empirical findings of this study substantiate the following hypothesis.

H2: Service Quality dimension of Reliability, when corporate image is included has a significant impact on Overall Customer Satisfaction.

Empirical results depicts, that **Security/Privacy** is the lowest significant dimension of Customer Satisfaction. This is not considered as the norms within an online context especially in the banking sector. The results reveal that when the bank has established its Corporate Image within the financial sector, customers tend to take it for granted that security and privacy issues are already embedded in the banking systems. Security and Privacy is no longer an option but rather a pre-requisite considering the sensitivity within the online context. Confidence would be instilled to customers, when the bank has a better image within the financial sector. They tend to overlook minor mistakes made by the bank, which can be considered as a distinctive advantage.

Moreover, Assurance also covers most of the Security and Privacy issues. In this study Corporate Image and Assurance is evaluated as the most significant dimensions in achieving Customer Satisfaction.

In e-banking Assurance is known to be more important than security and Privacy (Ma, Z., 2012), this too is consistent with the current empirical findings.

The study of Dr. S. Kumar & R. Garg (2012) revealed that Trust and Security was significant dimensions of Customer satisfaction; however the Assurance dimension was excluded in their service quality dimensions study. Similar results were depicted in Gupta & Bansal (2012), where security/privacy to be the most significant dimension of Customer Satisfaction in the absence of Corporate Image and Assurance. In designing eTailQ, Wolfinbarger & Gilly made special emphasis that, Parasuraman's SERVQUAL model did not reflect the dimension of Security/Privacy, and their model was very particular about this dimension. It is of importance to note that in designing eTailQ, Wolfinbarger and Gilly (2003) made special emphasis on the relevance of Security/Privacy in an online context.

The preceding studies and the empirical findings of this study, strengthen the hypothesis.

H6: Service Quality dimension of Security/Privacy, when corporate image is included has a significant impact on Overall Customer Satisfaction.

Web site Design and Responsiveness still persist as insignificant dimensions of customer Satisfaction. Current findings are contrary to the findings of Arne Floh et al. 2006, which depicts website has a direct impact on Customer Satisfaction but the Corporate Image was not included. Nonetheless the findings was consistent with the study conducted by Ouparami W.(2009), which revealed that in the presence of Corporate Image, responsiveness and Tangible dimensions were not significant indicators of Customer Satisfaction. In their study however the Corporate Image was directly linked to Customer Loyalty instead of Customer satisfaction. Web site design replaces the SERVQUAL model tangibles and in their study tangibles has no effect on Customer Satisfaction.

Responsiveness dimension to a greater extent is overshadowed by problem handling as such the problem handling has emerged as one of the most significant indicators of Customer Satisfaction. Efficiency too in this study is not a significant dimension, since technology based transactions are more efficient and accurate than the human component. On the contrary, Problem resolution/handling cannot be replaced by technology, human interaction still persist as one of the vital factors to enhance customer satisfaction.

Gi-Du Kang and Jeffrey James, (2004) examined in detail the Grönroos, service quality model. They emphasized the importance of containing a measure of Corporate Image when assessing service quality. Corporate Image was incorporated in Parasuraman's service quality model and the conclusions distinctly depicted the implications of Corporate Image as a part of Service Quality. In an online context, particularly the banking sector, Corporate Image, Problem Handling and Assurance factors are becoming explicitly clear indicators of Customer satisfaction. Dimensions such as Web site design, empathy and responsiveness are being complemented by the technology itself. Responsiveness could be achieved through technology to a greater extent than with the human interaction.

As such the following hypotheses do not substantiate empirically.

H1. Service quality dimension of Website Quality, when Corporate Image is added, has a positive relationship with Overall Customer Satisfaction.

H3. Service quality dimension of Responsiveness, when Corporate Image is added, has a positive relationship with Overall Customer Satisfaction.

In conclusion, based on the empirical findings the significant factors to achieve internet banking Customer satisfaction would be according to priority:-

1. Corporate Image (Most Significant)
2. Assurance
3. Problem Handling
4. Empathy
5. Reliability
6. Security and Privacy.

The above insights would impart significant knowledge to the Sri Lankan banking sector to focus on the above dimensions to enhance their, internet banking Customer Satisfaction. The implications to the Management would be to concentrate on the first three dimensions of Corporate Image, Assurance and Problem Handling, which in turn would complement the other three dimensions of Empathy, Reliability and Security/Privacy. If Corporate Image and Assurance could be enhanced, the Security/Privacy, Customer satisfaction could be improved significantly. Sri Lankan banks particularly in an online context, have not ventured to ascertain empirically the most significant dimensions of Service Quality on Customer satisfaction. The research implications could be timely intervention to the banking sector to enhance customer satisfaction.

Enhancing internet banking usage will considerably decrease costs and will improve profitability of the banks. Banking sector is transforming rapidly, despite banks operating in a volatile environment, the potential of differentiating its products and services through online banking is encouraging. Hence there is greater potential to increase revenue using technology, persists in the banking sector.

Revised model



LIMITATIONS AND FUTURE RESEARCH

The study was compelled to utilize convenience sampling due to the prevailing Banking laws in Sri Lanka which prevents any individual to gain access to personal details pertaining to customers. Nevertheless the researcher was able to obtain a diverse banking customer base for which the results could be generalized. Further research in this area is vital particularly to the Sri Lankan banking sector, which has the potential to grow.

Since mobile banking has the potential to overtake the internet banking in the future, studies of comparison between the two may be timely.

Arguably, in today's world, nothing captures more attention of an audience than the technology innovation and fundamental deviation of marketing concepts. Banks are operating on a highly volatile environment with extensive competition and escalating customer demands. Internet banking is comprehended as the most cost effective and efficient method to increase profitability. The primary goal of any bank is to reduce costs, increase efficiency and profitability through introduction of internet banking. The profits will contribute directly to the GDP of Sri Lanka. Banks need to leverage on technology to gain competitive advantage, Sri Lanka has just commenced its journey but has the potential to grow extensively, if they persist the right strategy.

ACKNOWLEDGEMENTS

The author is grateful to Professor Dr. Ali Kathibi as supervisor of this paper. Prof. Ali is the Dean and Director of Graduate School of Management Centre (GSM), Professor of Marketing at The Management and Science University, Malaysia and served in various senior positions, including The Director Research, Head of School, at the University. He is honored as the Senior Research Fellow and serves as the Adjunct Professor in China, Singapore, Australia and UK.

The author also thanks Professors Dr. Karuthan Chinna and D.A.C. Silva as co-supervisors of this paper. Professor Dr Karuthan Chinna is an Associate Professor at the Department of Social and Pre-ventive Medicine, University of Malaya. He has a Master Degree in Applied Statistics from the Michigan State University, USA and a PhD in Multivariate Quality Control from the Multimedia University, Cyberjaya. Mr. D.A.C. Silva has a Ph.D. from Vrije University Amsterdam); M. Phil from University of Maastricht, the Netherlands, MA from University of Colombo and BA from University of Colombo. Mr. Silva is presently, working as a permanent senior lecturer at the Department of Economics, University of Colombo, Sri Lanka.

REFERENCES

- Al-Hawari, M., & Ward, T. (2006). The Effect of Automated Service on Australian Banks' Financial Performance and the Mediating Role of Customer Satisfaction. *Journal of Marketing Intelligence & Planning*, 24(2), 127-147.
- Brady, M., & Cronin, J.Jr. (2001). Some New Thoughts on Conceptualizing Perceived Service Quality, a Hierarchical Approach. *Journal of Marketing*, 65(3), 34-49.
- Castleberry, S., & Resurreccion, A. (1985). Communicating Quality to Consumers. *Journal of Consumer Marketing*, 6(3), 21-89.
- Chang, H., & Chen, S. (2009). Consumer Perception of Interface Quality, Security and Loyalty in Electronic Commerce. *Journal of Information & Management*, 46 , 411-417.
- Chen, C. H., & Lee, H. Y. (2008). Empirical Analysis of the Customer Loyalty Problem in the International Logistics Market. *WSEAS Transaction on Business Economics*, 4(5), 113-123.
- Cohen, D., Gan, C., Yong, H., & Choong, E. (2006). Customer Satisfaction:A Study of Bank Customer Retention in New Zealand. Canterbury: Commerce Division, Discussion Paper No. 109, Lincoln University, ISSN 1174-5045.
- Caruana, A. (2002). Service Loyalty. The Effects of Service Quality and the mediating role of Customer Satisfaction. *European Journal of Marketing*, 36(7/8), 811-828.
- Carvajal, S., Ruzzi, A., Nogales, A., & Suárez, M. (2012). Focusing resources for customer loyalty: An application to the Chilean banking industry. *African Journal of Business Management*, 6(3), 1100-1108.
- Cronin, J. Jr., & Taylor, S. (1992). Measuring Service Quality: a Re-Examination and Extension. *Journal of Marketing*, 56(3), 55-68.
- Cronin Jr., J., Brady, M., & Hult, T. (2000). Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76(2), 193–218.
- Cronbach, L. (1951). Coefficient Alpha and the Internal Structure of Tests, *Psychometrika*, 16(3), 297-334.
- Dabholkar, P. (1996). Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. *Intern. Journal of Research in Marketing*, 13 (1), 29-51.
- Dabholkar,, P., Shepherd, D., & Thorpe, D. (2000). A Comprehensive Framework for Service Quality: An A Comprehensive Framework for Service Quality Issues Through a longitudinal Study. *Journal of Retailing*, 76(2), 139-173.
- Floh, A., & Treiblmaier, H. (2006). What Keeps The Banking Customers Loyal?A Multigroup Analysis of The Moderating Role of Consumer Characteristics On E-Loyalty In the Financial Service Industry. *Journal of Electronic Commerce Research*, 7(2), 97-110.
- Francis, J., & White, L. (2004). Value Across Fulfilment-Product Categories of Internet Shopping. *Journal of Managing Service Quality*, 14 (2/3), 55-68.
- Fredriksson, O. (2003). Internet-Based Self-Services: Relational Aspects of E-Banking: a Private Client Survey Analysis, Institute for Management of Innovation and Technology, Working Paper Series 2003:136.
- Ganesan, R., & Vivekanandan, K. (2009). A Secured Hybrid Architecture Model for Internet Banking,(E-Banking). *Journal of Internet Banking and Commerce*, 14(1), 01-17.

- Ganguli, S., & Roy, S. (2011). Generic Technology-Based Service Quality Dimensions in Banking: Impact on Customer Satisfaction and Loyalty. *International Journal of Bank Marketing*, 29 (2), 168-189.
- Gefen, D. (2002). Customer Loyalty in E-Commerce. *Journal of the Association for Information Systems*, 3, 27-51.
- Grönroos, C. (1984). A Service Quality Model and Its Marketing Implications. *European Journal of Marketing*, 18(4), 36-44.
- Grönroos, C. (1990). *Service Management and Marketing : A Customer Relationship Management Approach*. Chichester: John Wiley & Sons.
- Grönroos, C. (2001). The Perceived Service Quality Concept – A Mistake? *Managing Service Quality*, 11(3), 150-152.
- Gupta, K., & Bansal, I. (2012). Development of an Instrument to Measure Internet Banking Service Quality in India. *International Refereed Research Journal*, 2(2), 11-25.
- Hair, J., Jr., Anderson, E., Tatham, L., & Black, C. (1998). *Multivariate Data Analysis* (5th ed.). Upper Saddle River, Prentice-Hall, New Jersey.
- Herington, C., & Weaven, S. (2009). E-Retailing by Banks: E-Service Quality and Its Importance to Customer Satisfaction. *European Journal of Marketing*, 43(9/10), 1220-1231.
- Hoffman D., Novak, T., & Peralta, M. (1999). Building Consumer Trust Online. *Communications of The ACM*, 42 (4), 80-85.
- Kang, G., & James, J. (2004). Service quality dimensions: an examination of Grönroos's service quality model. *Managing Service Quality*, 14(4), 266–277.
- Kenova, V., & Jonasson, P. (2006). *Quality Online Banking Services*. Jonkoping International Business School. Bachelor's Thesis in Business Administration, Jonkoping University, Sweden.
- Kim, S. Y., & Lim, Y. L. (2001). Consumers' perceived importance of and satisfaction with Internet Shopping. *Journal of Electronic Markets*, 11(3), 149-154.
- Kumar, S., & Garg, R. (2012). Service Quality Measurement of Internet Banking: A Customers' Perspective. *National Conference on Emerging Challenges for Sustainable Business*, 46 (3), 1417-1436.
- Kumbhar, V. (2011). Service Quality Perception and Customers' Satisfaction in Internet Banking Service: A Case Study of Public and Private Sector Banks. *Cyber Literature, The International Online Journal*, 4 (2), 21-30.
- Lee, G., & Lin, H. (2005). Customer perceptions of e-service quality in online shopping. *International Journal of Retail & Distribution Management*, 33 (2), 161-176.
- Lewis, B. R., & Soureli, M. (2006). The Antecedents of Consumer Loyalty in Retail Banking. *Journal of Consumer Behaviour*, 5(1), 15-31.
- Li, H., & Suomi, R. (2009). A Proposed Scale for Measuring E-Service Quality. *International Journal of U and E Service, Science & Technology*, 2 (1), 01-10.
- Li, Y. (2009). A Model of Customer E-Loyalty in the Online Banking. *Economics Bulletin*, 29 (2), 891-902.
- Ma, Z. (2012). Assessing Serviceability and Reliability to Affect Customer Satisfaction of Internet Banking. *Journal Of Software*, 7(7), 1601-1608.
- Munusamy, J., Chelliah, S., & Mun, H. (2010). Service Quality Delivery and Its Impact on Customer Satisfaction in the Banking Sector in Malaysia. *International Journal of Innovation, Management and Technology*, 1(4), 398 -404.
- Naser, K., Ahmad, J., & Al-Khatib, K. (1999). Islamic Banking, A Study of Customer Satisfaction and Preferences in Jordan: *International Journal of Bank Marketing*,

- 17(3), 135 - 147.
- Oliver, R. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Judgements. *Journal of Marketing Research*, 17(4), 460-469.
- Ouparamai, W. (2009). High-speed internet service providers in Thailand: customer selection, satisfaction and loyalty', DBA thesis,. Theses, 242. New South Wales, Australia: Southern Cross University, Lismore, NSW.ePublications@SCU.
- Parasuraman, A., Berry, L., & Zeithaml, V. (1988). SERVQUAL: A Multiple-item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64 (1), 12-40.
- Parasuraman, A., Berry, L., & Zeithaml, V. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. *Journal of Marketing*, 49(4), 41-50.
- Ranganathan, C., & Ganapathy, S. (2002). Key Dimensions of Business-to-Consumer Websites. *Journal of Information and Management*, 39 (6), 457-465.
- Rowley, J. (2006). Relationships and Online Consumer Communities. *Business Process Management Journal*, 12 (2), 162 - 177.
- Rust, R., Zahorik, A., & Keiningham, T. (1996). *Service Marketing*. Harper Collins, New York., N.Y.
- Santos, J. (2003). E-service Quality: a Model of Virtual Service Quality Dimensions. *Managing Service Quality*, 13 (3), 233-246.
- Sekaran, U., & Bougie, R. (2009). *Research Methods for Business* (5th Edition), John Wiley & Sons Ltd.
- Wolfinger, M., & Gilly, M. (2003). eTailQ: Dimensionalizing, Measuring and Predicting eTail Quality. *Journal of Retailing* 79(27),183–198.
- Wong, D., Rexha, N., & Phau, I. (2008). Re-Examining Traditional Service Quality In an E-Banking Era. *International Journal of Bank Marketing*, 26 (7), 526-545.
- Yang, Z., Peterson, R., & Huang, L. (2000). Taking the Pulse of International Pharmacies. *Marketing Health Services*, 21(2), 4-10.
- Zhu, F., Wymer, W., & Chen, I. (2002). IT-Based Services and Service Quality in Consumer Banking. *International Journal of Service Industry Management*, 13, (1) , 69-90.