A Comparative Analysis of Customer Satisfaction on Self Service Technology Channels between State and Private Banks

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Abstract

The last two decades in the banking industry has seen many developments to face the competition among its competitors. Technology is one field that banking industry focuses on for this competition. Nowadays self-service technology (SST) channels are the popular technologies used by banks. The customers' satisfaction is also very important to face the challenges for the banks to cope up with other banks. Hence this research focuses on the satisfaction level of customers towards self-service technology channels provided by public and private sector banks in Gampaha district of Sri Lanka. The objectives of this study were, to find out the level of customer satisfaction on attributes of SST channels between state and private banks and identify the level of overall customer satisfaction towards their SST channels. The primary data were collected from questionnaires and the sample of 100 customers has been selected using simple random sampling method from two private and two public banks. Findings of the study revealed that overall customer satisfaction on SST channels in both banks were high level. Furthermore, the private banks provided more satisfaction to their SST channels users than the state banks.

Introduction

The Sri Lanka banking industry has suddenly witnessed a major boom in the recent years. In order for the banks to compete effectively, there has been a major focus to operational improvements with a view of minimizing the resulting impact on attrition, dormancy and loyalty, and in the process achieve a benefit in terms of their costs to serve and at the same time create maximum effect on customer satisfaction.

Since, rapid advancement of technologies has allowed many service oriented organizations to enter into a technology mediated self-service environment and it is extensively exhibited in the banking environment. Service organizations, including banks, deliberately adopt self-service technologies while encouraging their customers to adopt them too (Dabholkar and

Bagozzi 2002; Zhu et al. 2013), in which customers produce and consume services by themselves without direct employee assistance (Meuter et al. 2005). Banks employ numerous types of self-service channels to reach their customers including ATM, CDM, Mobile Banking, Internet Banking, SMS Banking, KIOSKs etc. Particularly, banks deploy a number of different channels to deliver their services to customers and therefore these service channels play an important role in consumer interactions with banks. Motivated by efficiency gains, flexibility and productivity and improved corporate performances (Dabholkar 1996), service organizations, including banks, are driven to readily apply different types of self-service technologies (SST) (Lee et al. 2009) and therefore, it is necessary to understand the customer evaluation of these multiple service channels in order to improve the organizational status, especially in banks and customer satisfaction in a dynamic competitive environment (Orel and Kara 2014).

According to the Sri Lankan context, there were few private and foreign banks, the banking sector in Sri Lanka was dominated by three public sector banks until late 1980s. Private sector banks started after 1980s introduced information technology heavily into the banking sector. This situation changed the outlook of the banking sector completely. Presently there are 26 commercial banks in Sri Lanka serving to relatively a small population of nearly 21.2 million. As a result, the banking sector in Sri Lanka has become very competitive. Therefore, it is necessary to measure the customer satisfaction on SST channels between state and private banks in Sri Lanka. This research paper tries to measure the customer satisfaction between both in private and public sectors banks operating in Gampaha District.

Anyhow, level of domination of the state banks has been decreased due to the new technology capabilities of private banks. As per the eye catch view, private banks effectively competing with state banks (S. T. W. S. Yapa; K.M Hasara, 2013). Customers are thinking that, the staff of state banks, not effectively assist to customers. There are waiting more time, when comparing private banks (K.Kahandawa; J.Wijayanayake, 2014). Hence, state banks have huge customer base, because of government employees, EPF, ETF, Tax procedures. There are only focus on maintain those customers rather than attracting new ones.

Therefore, customers are willing to close their accounts on state and start to deal with private banks. In this scenario, customers are only looking at the service provided by staff members. Anyhow, future world is depending on the technological interface. To decide the banking assistant, customers should want to consider the self-service technology channels also. Customer satisfaction is a vague and theoretical concept and actual expression of the state of satisfaction will vary from person to person and service to service (Kanojia and Yadav, 2012). As well as, the self-service technology channels served by the state sector banks and private sector banks are different.

As far as the researcher concerns, there was many researches have been conducted to identify the customer satisfaction on banking service in Sri Lanka, But, there is exists 4 a clear research gap regarding the difference of customer satisfaction of SST channels between state banks and private banks. It is important to identify the level of customer satisfaction on SST channels between state and private banks, for select the future bank assistant and to identify ways to improve the quality of their self-service technology channels. In regards to this discussion, the aim of this research is to answer the questions as: "Is there any difference on the level of customer satisfaction of self-service technology channels between state and private banks in Gampaha District?" Based on the research problems identified above and literature review the research objectives of this study are: (1) To find out the difference on the level of customer satisfaction of efficiency of SST channels between state and private banks in Gampaha District? (2) To find out the difference on the level of customer satisfaction of ease of use of SST channels between state and private banks in Gampaha District? (3) To find out the difference on the level of customer satisfaction of convenience of SST channels between state and private banks in Gampaha District? (4) To find out the difference on the level of customer satisfaction of reliability of SST channels between state and private banks in Gampaha District? (5) To find out the difference on the level of customer satisfaction of security of SST channels between state and private banks in Gampaha District? And (6) To find out the difference on the level of overall customer satisfaction of SST channels between state and private banks in Gampaha District?

Literature Review

The existing research on SST focuses on either a single technology in a given study Dabholkar (1992) or, in the case of the early studies, primarily low-technology self-service like hotel vending machines versus room service and primitive forms of ATMs (Bateson, 1985; Langeard et al., 1981). None of the research attempts to examine the range of SSTs available to consumers today. In the current study, we explore diverse available SSTs, some are well established, whereas others are in their infancy, and others may never be successful on a large scale.

Customer satisfaction is defined as an evaluation of perceived discrepancy between prior expectations and the actual performance of the product (Oliver, 1999). Customer satisfaction is how customers evaluate the ongoing performance (Gustasson et al., 2005). Customer satisfaction is a customer's reaction to the state of satisfaction, and customer's judgment of satisfaction level (Kim et al., 2004).The concept of customer satisfaction and service quality is interrelated with each other, moreover satisfaction of customer depends upon service quality and service quality is increasingly offered as a strategy by marketers to position themselves more effectively in the market place (Parasuraman et al., 1988; Cronin and

Taylor, 1992). Therefore customer satisfaction can be studied with the service quality in mind since level of customer satisfaction is the function of customer expectation level and service quality level provided by the organization.

As customers become more sophisticated, it becomes essential to consider the use of technology to respond to their continuously changing needs. Banking is an industry which is highly involved with the customers. Customers in developing economies seems to keep the "technological factors" of services as the yardstick in differentiating good and bad services and the human factor – the employees seem to play a lesser role in discriminating the quality of service for banks. The variation in services offered by the banks develops the excellence for service quality. Banking is no longer regarded as a business dealing with money transaction alone, but it is also seen as a business related to information on financial transaction (Padwal, 1995). Customers whether at the corporate level or at retail level have always been important for the banks. As SST is becoming more prevalent, so level of customer satisfaction is also changing the scenario of technological environment. SST plays a significant role in providing better services at lower cost. Several innovative SST such as Automated Teller Machine (ATM), Internet banking, Smart cards, Credit Cards, Mobile banking, anywhere-anytime banking have provided number of convenient services to the customer. So as the service quality improves, the probability of customer satisfaction increases which in turn increases the mutual understanding, customer retention and a bond of trust between customer and bank. The banks which are providing these services at large extent to customers are more reputed in the eyes of customers.

Traditionally, consumers directly interact with service organizations and service encounters take place between the front line service employees and the consumers (Bitner 1990); this traditional interpersonal focus of service encounters is heavily replaced by technologies (Bitner et al. 2000) and presently consumers encounter these new self-service technology facilities (Beatson et al. 2007; Meuter et al. 2000). These new service delivery approaches play a more important role in the service environment (Beatson et al. 2007) and they can be defined as technological interfaces that enable customers to produce a service independent of direct involvement of the service employees or minimum participation of service employees (Orel and Kara 2014; Meuter et al. 2000). Usage of SST can be seen in a range of services including traditional high contact services and low contact services (Curran et al. 2003) and range from Automated Teller Machines (ATM) at banks, self-accessed airline services or hotel facilities, self-scanning supermarket checkouts, web interfaces in banks, Kiosks in airlines, and pay at pumps in gas stations etc.

Methodology

The research design adopted was descriptive. A descriptive research aims at describing the characteristics of the population under study (Quee, 1999). For data collection method, primary and secondary data are used to gather data for the purpose to complete the research study. Primary data collection method widely used in the research. Questionnaire is used to directly collect information from sample respondent. Synodinos (2003) stated that survey used information gather from sample respondent to generalize parent population. To the data collection, the researcher fully depends on questionnaire to identify the level of customer satisfaction on SST channels between state & private banks in Gampaha district.

Study population for the research study has been identified self-service technology channel users in Gampaha District. Under the probability sampling technique, stratified sampling method and simple random sampling method was adopted in data collection to select the sample of SST channel users.

Therefore, questionnaires were distributed among the respondents who were SST channel users in the Gampaha district. 100 customers are randomly selected. The variables in the research model was measured through questionnaires with Five Point Likert Scales which was completed by the respondents themselves appropriately as they perceived respond to each and every question.

Univariate Analysis – Mean, Standard Deviation

Researcher analyzed the average level of satisfaction by using descriptive statistics such as mean and standard deviation of attributes of SST channels. Three type of decision attributes that can be derived from the value indicated in the questionnaire between1 to 5 scales as follows, where "Xi" is the mean value of each variable.

Table 1: Decision Rule

Range	Decision Attributes
$1.00 \leq Xi \leq 2.50$	Low Level of Satisfaction
$2.50 < Xi \leq 3.50$	Moderate Level of Satisfaction
$3.50 < Xi \leq 5.00$	High Level of Satisfaction

Results and Discussions

Frequency Distribution Analysis - Demographic Profile of Respondents

In this study, the demographic profile in terms of gender, age, educational status etc. are categorized and their responses were analyzed as shown in the following Table 2 in order to show the diversity of respondents of both private and public sector banks.

Table 2: Demographical Data of the Respondents

Types	State Sector Banks		Private Sector Banks	
	N	%	N	%
Gender				
Male	31	62	33	66
Female	19	38	17	34
Age				
18-30	24	48	20	40
31-50	19	38	17	34
Over 51	7	14	13	26
Educational Status				
O/L	5	10	4	8
A/L	18	36	12	24
Diploma	9	18	10	20
Degree	15	30	20	40
Postgraduate Degree	3	6	4	8
Occupation				
Unemployed	15	30	7	14
Employed in Private Sector	19	38	18	36
Employed in Government Sector	13	26	15	30
Self Employed	3	6	10	20
Monthly Income				
Below Rs.25.000	10	20	10	20
Rs. 25.000-Rs.50.000	28	56	23	46
Rs.50000-Rs.75.000	6	12	10	20
Above Rs.75.000	6	12	7	14
Usage Experience				
Less than 6 months	21	42	12	24
Less than 1 year and more than 6 months	14	28	23	46
More than one year	15	30	15	30

(Source: Survey Data)

The results in Table 2 show that male respondents are the majority as represented by 62% in state sector banks and 66% in private sectors banks. In both sectors, male customers are dominated. In regard to age type in both sector banks the greater part of respondents' age is in the range of 18 - 30 years. If see the occupation then majority respondents have private sector job in both sector banks. The larger part of customers' educational qualifications in

state banks are A/L and in private banks are degree. Concerning the monthly income, the respondents of state banks have less income than private banks. Lastly, in regard to duration of account with the bank, the larger number of respondents has been a customer for a period of less than six month in state banks, whereas in the private banks, less than 1 year and more than 6 month users were major respondents.

Attribution-wise Customer Satisfaction Analysis

In this study, customer satisfaction for private and public sector banks was measured through the questionnaire in which respondents were required to indicate the extent to which they agree or disagree with each attribute of quality dimensions namely efficiency, ease of use, convenience, reliability and security. The statistical analysis and explanations of these service attributes are depicted in the Tables below:

Table 3: Descriptive Statistics of Indicators of Efficiency Dimension

Indicators	State Banks		Private Banks	
	Mean	S.D	Mean	S.D
Shorter waiting time	4.44	0.61	4.54	0.58
Time saving	4.28	0.54	4.54	0.58
Quick transactions	4.18	0.60	4.50	0.61
Cost reduction	4.06	0.51	4.32	0.65
Efficiency of SST	4.24	0.41	4.47	0.44

(Source: Survey Data)

Table 3 exhibits the different mean score for efficiency dimension for both state and private sector banks. Analysis clearly shows that private sector banks exceed the level of customer satisfaction of their customers when comparing to public banks in respect of efficiency dimension. The weighted mean rank of all the indicators under the efficiency dimension higher in case of private sector banks (4.4750) in comparison to the public sector banks (4.2400). Among the indicators of efficiency dimension, "the cost reduction" has the lowest satisfaction level in both sector banks. As well as the highest satisfaction mean score in both private and public sector banks have shown. On the other hand, shorter waiting time has shown the highest mean score in both sector banks.

Table 4: Descriptive Statistics of Indicators of Ease of Use Dimension

Indicators	State Banks		Private Banks	
	Mean	S.D	Mean	S.D
Easy to become expert	3.72	0.73	4.00	0.73
Easy to use	4.06	0.51	4.28	0.54
Clear instructions	3.96	0.53	4.28	0.57
User friendly	4.00	0.45	4.08	0.49

| Mental efforts | 4.02 | 0.62 | 4.18 | 0.60 |
| Ease of Use of SST | 3.9520 | 0.3970 | 4.1640 | 0.4439 |

(Source: Survey Data)

Table 4 indicates the major variations in the observations of public sector banks with their respective customers when this is compared with private sector banks. Private sector banks have an average mean score of 4.1640 with standard deviation of 0.4439 and the public sector banks have an average mean value of 3.9520 with standard deviation of 0.3970. This implies that customers are more satisfied with private sector banks than in public sector banks.

Table 5: Descriptive Statistics of Indicators of Convenience Dimension

Indicators	State Banks		Private Banks	
	Mean	S.D	Mean	S.D
Accessibility	4.30	0.58	4.32	0.68
Anywhere	4.06	0.47	4.18	0.69
Real convenient	3.72	0.57	4.24	0.66
Convenience of SST	4.02	0.44	4.24	0.59

(Source: Survey Data)

Table 5 fetches to light the distinction in the perceptions of the banks. State sectors banks and private sectors banks with their relevant customers on convenience dimension. More mean and less standard deviation indicates more important factors for customer satisfaction. In case of all the indicators of convenience the mean ranks of private banks are higher than the public sector banks. State banks have a weighted mean value of 4.0267 and standard deviation of 0.4407. On the other hand, private banks have a weighted mean value of 4.2467 and standard deviation of 0.5902. This clearly reveals that private sector banks provide better convenience and indicates that in case of private banks the facilities are more accessible and the services are also more convenient than the public banks. The lowest satisfaction mean score for state banks is for the real convenient and for private banks, the lowest mean is for the location/ anywhere.

Table 6: Descriptive Statistics of Indicators of Reliability Dimension

Indicators	State Banks		Private Banks	
	Mean	S.D	Mean	S.D
Error free service	4.06	0.65	3.96	0.67
Dependency rate on SST channels	3.98	0.65	3.90	0.61
Required time for complete transactions	4.00	0.64	3.96	0.67
Level of reliability	3.80	0.73	4.08	0.66
Reliability of SST	3.96	0.54	3.97	0.50

(Source: Survey Data)

Table 6 indicates the major variations in the observations of public sector banks with their respective customers when this is compared with private sector banks. Private sector banks have an average mean score of 3.9750 with standard deviation of 0.5082 and the public sector banks have an average mean value of 3.9600 with standard deviation of 0.5401. This implies that customers are more satisfied with private sector banks than in public sector banks.

The indicator wise analysis of reliability dimension explains that customers feel the state banks have better ability to perform the promised services dependably and accurately. On the other hand, in public sector banks the highest attribute for reliability dimension is maintaining error free service by the bank. But, the private sector banks are better in case of showing interest in solving customer's problems and performing right service at the first time with high level of reliability.

Table 7: Descriptive Statistics of Indicators of Security Dimension

Indicators	State Banks		Private Bank	
	Mean	S.D	Mean	S.D
Safety	3.36	0.89	3.32	0.99
Low risk	3.16	0.91	3.24	0.85
Personal information safety	3.32	0.87	2.98	0.91
Security of SST	3.28	0.72	3.18	0.76

(Source: Survey Data)

The factor wise analysis of security dimension illustrates that private sectors bank is greater than the perceptions of their customers than public sector banks. Both in private and public sectors banks, personal information safety has the lowest mean score than the other indicators. "Low risk associate with SST channels" in public banks shows the lowest mean score (3.16) among all the indicators. The satisfaction scores for all indicators of security dimension in private and public sector banks are moderate level satisfied. On the other hand, in both sector banks, the average mean score for all indicators security dimension of SST channels.

Table 8: Descriptive Statistics of Indicators of Overall Customer Satisfaction

Attributes	State Banks		Private Bank	
	Mean	S.D	Mean	S.D
Efficiency	4.24	0.41	4.47	0.44
Ease of Use	3.95	0.39	4.16	0.44
Convenience	4.02	0.44	4.24	0.59
Reliability	3.96	0.54	3.97	0.50
Security	3.28	0.71	3.18	0.76

Overall Satisfaction	3.89	0.23	4.01	0.31

(Source: Survey Data)

According to the statistics, Table 8 indicates the major variation of public sector banks with their respective customers when this is compared with private sector banks. More mean and less standard deviation indicates more important factors for customer satisfaction. In case of all the dimensions of SST channels except the security, the mean ranks of private banks are higher than the public sector banks. Private banks have a weighted mean value of 4.0081 and standard deviation of 0.3082. On the other hand, state banks have a weighted mean value of 3.8917 and standard deviation of 0.2338.

This clearly reveals that private sector banks provide better satisfaction and indicates that in case of private banks the efficiency, ease of use, reliability and the convenience than the public banks. The lowest satisfaction mean score for private banks is for the dimension of security and for state banks, the lowest mean also for the security of SST channels.

As a whole, it can be concluded the overall customer satisfaction on SST channels in both banks were high level. Furthermore, the private banks provided more satisfaction to their SST channel users than the state banks.

Conclusion and Recommendations

In modern competitive business environment meeting up of customer satisfaction is important. Customer satisfaction varies according to the nature of the services provided by banks. According to the study, the highest customer satisfaction is shown in the efficiency dimension for both private and public sector banks. The indicators of efficiency dimension such as, shorter waiting time, time saving, quick transactions and cost reduction of transactions influence highly the customer satisfaction. The almost same satisfaction level is shown in between the state and private banks relating to convenience, ease of use and reliability.

On the other hand, moderate satisfaction level indicated in the security dimension under the both sector banks. Level of satisfaction for the reliability dimension does not differ significantly in both private and public sectors banks which mean that error free service, time for complete transactions and reliability level of transactions do not differ much in both sector banks.

After all, from the above study, it can be concluded that when the attribute-wise analysis is made, the private sector banks have contributed much to their customers than by public sector banks in the all service dimension except security. Hence, the customers are more satisfied with private banks than in public sector banks. Competition wise the private banks

are moving ahead of the state banks. Anyhow, the state banks have been providing more secure service than the private banks.

In order to satisfy the customers, both public and private sector banks need to find out the weak areas to assist the managers to take plan and decisions for meeting up the customers' requirement. As the customer satisfaction level for majority of dimensions of public sector banks is lower than private sector banks, the public sector banks should emphasize more on improving the services in terms of efficiency, ease of use and reliability. State banks should more investment on technologies, ensure efficiency in serving customer and upgrade existing systems or while buying new systems to satisfy their customers. They should have appealing and spacious comfortability conditions, audio visual screen, public notice board etc.

Moreover, both public and private sectors banks should give more attention to increase the satisfaction level with security dimension as it has shown the moderate satisfaction level. This can be possible by passing transactions in a privacy manner, having secure operating and also improve the protectiveness of SST channels with higher security for all their customers.

On the whole, both sector banks need to focus on customers' oriented services, invest in infrastructure, adequate budgets for the development of infrastructure and introduce modern technologically mediated systems to boost their efficiencies in order to achieve success of business.

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