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# The Impact of ATM, Internet Banking and Mobile Banking on Customer Satisfaction

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Abstract— Most of the modern banking institutes practice digital banking for their operations instead to the traditional banking. The purpose of this study is to investigate the impact of ATM, Internet banking and Mobile banking on customer satisfaction of Sri Lanka. After reviewing extensive literature, first the researcher identified three electronic banking dimensions commonly used in Sri Lankan context and six service quality dimensions which measure customer satisfaction. The data are collected over purposive sampling method. Measurement model is modified and showed acceptable reliability, convergent validity, and discriminant validity. Results suggest that ATM banking has positive impact and internet banking as well as mobile banking have negative impact on customer satisfaction. This study can be taken as a guidance for future researches and who have undertaken in settings like digital banking practices, banks etc.

**Keywords**— Customer satisfaction, ATM, Internet banking and Mobile banking.

#### I. Introduction

Scholars always conduct research about the customers especially on what relates to their satisfaction (Weerasiri & Kosala, 2016). While comparing other industries that the banking has always been a highly information concentrated service that relies heavily on information technology to obtain, process, and deliver the information to all relevant users (Tan & Thompson, 2000). It is very clear that electronic banking can be offered quicker and more reliable services to the customers for which they may be relatively more satisfied than that of labor-intensive system of banking (Weligodapola, et al., 2020). There are few research studies regarding survey of measure the impact of ATM, internet banking and mobile banking on customer satisfaction in Sri Lankan context and there is a need for conduct a research in this area. This paper aims to study the impact of ATM, internet banking and mobile banking on customer satisfaction in Private Commercial Banks, Sri Lanka.

# Problem Identification

As a replacement for the traditional banking practices, bankers substitute modern practices nowadays. Wijesekara and Kandambi (2015) argues that there are impacts on successful businesses as the effect of digital banking. Nowadays, the Internet is well on its way to become a well-known conveyance and distribution channel and among the consumer-based applications riding at the front of this evolution are electronic financial products and services. Many studies have investigated how electronic banking practices is measured in Western province (Saparamadu, 2014), Anuradhapura district (Wijesekara and Kandambi, 2015) and

Kurunegala district by (Ravichandran & Madana, 2016). There are few studied the impact of modern banking practices on customer satisfaction in Southern province. There is weak spread of financial institutions among the grass root level of the community comparatively for the town areas. This is an attempt to study the ATM, internet banking and mobile banking practices on customer satisfaction of urban customers who live in Galle as the sample and observe the modern banking practices adopted by banks after 2015 by private commercial banks in Galle. The above background has paved the way for the researcher to reach the problem, "Does the ATM, internet banking and mobile banking impacts on customer satisfaction?"

Significance of the Study

Banking is main supportive service among cluster of services in practice. Number of banks has rapidly increased in Sri Lanka when considering about last couple of years. Number of branches also have increased speedily during previous time period as well (Saparamadu, 2014). Not only that number of facilities offered by the banks such as internet banking, automatic teller facilities and providing mobile apps also increased competitively since there is a huge competition among state as well as various private commercial banks, this is the most suitable time to conduct a research on such a topic. Rather than the state-owned commercial banks, there is comparatively high adaptation of the technology in private banks. From the year 2007 to 2015 the number of ATM s were doubled based on the statistics.

There is an inherent risk for general public in the case of carrying cash here and there. Big security problems are appearing. Generally, organizations focus ultimate successfulness and using latest technologies will create more and more value for the target. Since the customer has to be satisfied for achieve the organizational objectives that is very important to assess the relationship between ATM, internet banking and mobile banking on customer satisfaction.

### II. LITERATURE REVIEW

Instead of traditional banking practices the digital banking products and services are getting more and more advanced as well as increasing in variety by providing information at the early stage to provide transactional activities (Saparamadu, 2014). The banking industry has been rapidly developing the use of internet banking as an efficient and viable tool to create more and more customer value (Weerasiri & Kosala, 2016).



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Currently, electronic banking customer base is getting bigger speedily.

Based on Sri Lankan researches of (Jayasiri & Weerathunga 2008; Suraweera et al., 2011; Hettiarachchi 2013; Weligodapola, et al., 2020). highlight that still modern banking not spread over the country similarly in all areas. It is only less than 1% of bank customers use internet banking. mobile banking (Suraweera, et al., 2011). Most of the Sri Lankan general public does not tend to enhance the awareness in this regard (Hettiarachchi, 2013). If there is a customer awareness, then banks will be able to make satisfactory customer base more than current situation. Perceived cost, awareness of the service, and knowledge of internet and access to internet have a significant positive effect on customer perception towards internet banking while perceived usefulness, perceived ease of use, and perceived risk and trust has no significant effect towards modern banking usage according to the results of another domestic study (Mano et al., 2020).

Awareness if modern practices of Sri Lankan customers are problematic (Jayasiri & Weerathunga, 2008). According to his claims Sri Lankan customers still do not enjoy actual use of internet banking adequately. He also emphasizes that since one of the developing countries, Sri Lanka also suffer from tribulations and difficulties such as lack of infrastructure facilities and lack of modern technological advancements. Latest banking practices still do not move towards citizens and the popularity of these services among banking customers are not at a satisfactory level.

Regular modern banking Dimensions in Sri Lankan context As the very popular digital banking practice, ATM is the twenty-four-hour service offered during three hundred and sixty-five days of the year (Wijesekara & Kandambi, 2015). For the convenience of the clienteles, at the present time, ATMs are located by banks at convenient places such as at supermarkets, airports, railway stations etc. and not necessarily at the bank's premises (Saparamadu, 2014). Then Internet banking comes which enable banking customers to access accounts, transact business, or obtain information on financial products and services through the internet (Srivastava, 2007). In the year 2012, it is the start of mobile banking while available on tablets and smart phones, which the system puts customers' banks in their valets for the first time through mobile banking. Mobile banking can be identified as the use of mobile phone to access a bank account, check balances, recent transactions and basic operations using a menu by accessing a bank website via mobile browser, or move funds and pay bills issuing an application on a smart phone (Kahandawa & Wijayanayake, 2014)

# Customer Satisfaction

Dependent variable of this study is customer satisfaction. Soloman (2009, p.2) defines the customer is the person who does the buying of the products and the consumer is the person who ultimately consumes the product. That means not about the satisfaction of customer it is the satisfaction of the consumer. Kotler et al. (2012) defines customer satisfaction as "person's feeling of pleasure or disappointment which resulted from comparing a product's perceived performance or

outcome against his/ her expectations". Satisfaction is, therefore, an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire. Gradually it can be concluded that customer satisfaction is subjective, it represents entire attitude of a person and perception of the performance of the products or services.

# Conceptual framework and Hypotheses

The independent variable is modern banking practices and the dependent variable is customer satisfaction as illustrates in figure 1. The independent variable consists of number of sub variables such as Automated teller machines, Internet banking and mobile banking.

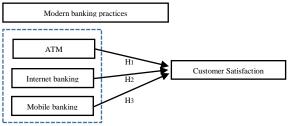


Figure 1: Conceptual Framework

#### Hypotheses Development

 $H_1$ : There is a positive impact of ATM banking on customer satisfaction

H<sub>2</sub>: There is a negative impact of Internet banking on customer satisfaction

 $H_3$ : There is a negative impact of mobile banking on customer satisfaction

#### III. METHODOLOGY

This study concentrations on the impact of ATM, Internet baking and mobile banking on customer satisfaction of private commercial banks in Galle District, Sri Lanka. The data collection took place during the year 2019. Purposive sampling method was applied in order to select the respondents from the population. The questionnaire method was used. Statistical Package for the Social Sciences (SPSS) and Smart PLS are used in order to analyze the data gather from primary data collection method. Initially, 250 questionnaires were distributed and only 180 were collected. Due to reasonable matters 30 of them were rejected. Consequently, the rate of response was 60%.

# Measurement

The answers were ranked by using 5-point likert-type scale ranging from 5 = very satisfied to 1 = very dissatisfied. When analyzing the data parametric statistics such as, Conbach's Alpha and path coefficients were used since the analyze data is scale in nature. The variables of customer satisfaction were adopted from Kumbhar (2011). Altogether six items were used to measure customer satisfaction.



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# IV. DATA ANALYSES AND RESULTS

The discriminant validity of the latent variables was tested using Fornell & Larcker's (1981) criterion, which requires that each latent variable's AVE is greater than the latent variable's squared correlation with any other construct in the model. Table 1 shows the discriminant validity of each latent variable. Final model of the confirmatory factor analysis provides (CFA) overall goodness-of-fit tests of the match between the theoretical factor structure and the data and tests the appropriateness of a hypothesized model (Heeler et al., 1977). Structural equation modeling (SEM) was used for the data analysis. PLS-SEM is distinguished from other analytical techniques in that it is more appropriate for causal relationship inferences (Bagozzi & Baumgartner 1994). All the hypotheses were supported.

Table 1 results reveal that there is a positive and statistically significant relationship between ATM and customer satisfaction ( $\beta = 0.643$ , t = 2.244, p < 0.05). The results indicate that the relationship between internet banking and customer satisfaction is in line though relationship is not statistically significant ( $\beta = -0.013$ , t = 0.593). The results show that mobile banking has a negative and statistically significant impact with customer satisfaction ( $\beta = -0.771$ , t = 2.115, p < 0.05).

Table 1: Results of PLS path model estimation

	Customer Satisfaction <sup>a</sup>
	Estimates (t – values)
Paths	
ATM	0.643 (2.244*)
Internet Banking	0.013 (0.593)
Mobile Banking	-0.771 (2.115*)

 $***p < \overline{0.001}; \, **p < 0.01; \, *p < 0.05$ 

<sup>a</sup>Dependent variable

The factor loadings of the latent variables are generally high and statistically significant, thus confirming that the indicator variables and their respective underlying constructs are all acceptable. Inspection of construct reliabilities reveals that the measurement model is highly reliable.

## V. DISCUSSION

According to the findings of the research, ATM has positive significant impact on customer satisfaction, as per (Sudath and Kosala, 2016) also concluded that banking customers are satisfying with ATM banking in Sri Lankan context. Based on this study an internet banking has a statistically insignificant relationship with consumer satisfaction. It is supported by another previous domestic studies also. customers of the savings bank are adopting the internet banking and feel quite comfortable which processing their day to day business through the online banking facility (Pratheesh and Pretheeba, 2019). Thus, still Sri Lankans are reluctant to accept internet banking (Suraweera et al., 2011)

Mobile banking also shows negative impact on dependent variable. This is supported by the study of factors that affect Mobile banking adoption in Sri Lankan context and the relationship between these factors (Ayoobkhan, 2018).

Therefore, Administrative in banks have responsibility to take necessary actions in order to make awareness of the

customers by using different attractive policies regarding financial and non-financial benefits of Atm, internet banking and mobile banking. Bank has to be very cautious while designing web sites especially in the event of internet banking and mobile banking (Bamrara, 2012). Since customers do not visit bank physically web site should be more user friendly.

In addition, formulation of financial service sector policies is in order to take place electronic banking would benefit banking industry as well as national economy as a whole. Even though the general public has computer and mobile usage nowadays they still not ready to use internet and mobile devices for their banking purposes.

#### Limitations and future researches

Only retail banking considered by this study. Future researches have opportunity to conduct a study with corporate banking customers as well since most of the corporate customers are more tend to use internet banking activities. Other researchers can get two or many banks though this author has taken only one bank. This writer has used few dimensions (responsiveness, easiness, tangibles, communication, access and security) measured by customer satisfaction out of list. Future researchers can use other dimensions which have not considered by an author. Conduct a task on other dimensions also will be an interesting task for future researchers.

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