

Electronic banking and customer satisfaction with reference to debit card holders in Sri Lanka

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Abstract

The anticipated gigantic changes in the banking and finance industry that are taking place around the world, have redesigned the competitive landscape of the industry with many digitalized services. This sparking trend has fortified many financial institutes in Sri Lanka to metamorphose its operation with international standards thriving competitive environment. Electronic payments and online banking facilities were few such innovative solutions that shift the entire economy towards a cashless society. Debit Card is a multipurpose electronic card that facilitates 24-hour customer services has now become a mandatory banking facility in Sri Lanka, therefore billions of money have been already invested by banks in the facility. By today the card is extensively applied everywhere, however, the application of debit cards is somewhat questionable especially in regional areas. Hence the objective of this study was to identify the level of customer awareness about debit card facilities and customers' satisfaction with the card. This deductive type quantitative study applied a questionnaire survey strategy and achieved its purpose through five causal hypotheses that tested the impact of convenience, security, prestige, rewards, availability of facilities on debit cardholders' satisfaction. Randomly, selected individual customers (397) contributed to the survey on which different statistical (correlation and regression) tests were employed to meet the research objective. There were 51.1% of male respondents in the sample in which 73.6 % were married. The majority of respondents belonged to the 26-35 age category and above 50% of them had up to A/L education. All most of the respondents had awareness about the facilities of the debit card, however, very little usage was reported except withdrawal as still people comfortable with cash. Respondents had mostly use a debit card for expenses between 5000.00 and 50000.00. Finally, the study found that convenience and available facilities as significant factors that satisfy debit cardholders. Accordingly, convenience and available facilities of debit cards are the expound dimensions that upsurge debit card application in day to day transaction in Sri Lanka, therefore study strongly encourage banks to consider the aforementioned dimensions if they wish to uphold debit card usage in the country.

Keywords: Banks, Cashless transaction, Debit Card, Facility, Satisfaction

INTRODUCTION

Anticipated and gigantic changes in the technology side of the world are making tremendous impacts on people's lives around the world has captured the control of the banking and finance industry-

transforming its traditional paper-based operation into digitalized services that pervasive around the world. The banking and finance industry is highly subdued to technological and communication changes resulting now than ever application of modern technical facilities in the industry has become fundamental to strengthen the competitive nature of the business. Alongside the latest improvements in the global banking and finance industry, Sri Lankan financial institutes have been forced for years to restructure its operation with international standards focusing more on digitalized and electronic services.

With that intensity, the banking and finance sector of Sri Lanka has long years before started to digitalize its services concerning customer conveniences along with international standards. At present electronic and digital banking has fully grounded in the country in which debit cards, credit cards, e-banking services, mobile banking services where banks gain a competitive advantage in the industry, were introduced. The first experience of electronic payment system to Sri Lankans was given by the Sampath Bank introducing Automated Teller Machine (ATMs) in 1986, whereby its proprietary ATM cardholders were able to withdraw cash from ATMs at any time of the day without visiting the bank by using cards at ATMs (Wijerathne, 2011). The debit card was first introduced to the country in 1997 and at present, there are 23,958,939 debit cards have been issued by licensed commercial banks, licensed special bank, and finance companies of the country through 32 licensed debit card issuers by 2020 (Central Bank of Sri Lanka, 2020). The total value of the transactions done through the debit card in the first quarter of 2020 is about 49 billion explains how much the facility has embraced by the people by today (Central Bank of Sri Lanka, 2020).

By today, the debit card has become a fundamental facility which banks should provide its customer when opening a saving account otherwise people who know the benefits and the value of the debit card might not persuade to open an account without a card. The trend has forced financial institutions to invest millions of money yearly in electronic payment facilities including debit cards to withstand any competitive challenge in the industry. Resulting, a substantial amount of money is allocated annually to popularize the debit card usage of the customer. Finally, indeed these all initiates should make the customer happier in the competitive business environment. However, it was noticed that the application and usage of electronic facilities significantly differ among rural and urban areas in a global context (Porto, 2017), and indeed Sri Lanka is no exception. By today though the card is extensively applied everywhere, the application of debit cards is somewhat questionable, especially in regional areas. Hence the objective of this study was to identify the level of customer awareness about debit card facilities and customers' satisfaction with the card.

LITERATURE REVIEW

Electronic banking can be defined as a provision of information or service by a bank to its customer, describe it as an electronic connection between bank and customer to prepare manage and control financial transactions (Karjaluo, 2002). It effectively uses the internet and cyber services to provide banking services to the customer (Timothy 2012), which has now become a key facilitating engine in electronic commerce (Tuilan, 2018). Implementation of electronic banking is on one hand accelerating the banking transactions, and on the other hand enabling transaction volumes and market shares of banks appearing before their customers with brand new services (Avsar, 2005).

In electronic banking, there are financial institutions that suggest various online payment method options and services to their consumers such as credit cards, debit cards, online banking, and mobile banking (Premachand & Choudhry, 2015). Lustsik (2004) defines E-Banking services as a variety of e-channels for doing banking transactions through the Internet, telephone, TV, mobile, and computer. The debit card is one of outstanding facility bank has introduced to its customer on electronic banking platform. A debit card is a plastic payment card that can be used instead of cash when making purchases. It is similar to a credit card, but unlike a credit card, the money comes directly from the user's bank account when using a debit card (Bakhtiar, 2016).

The electronic debit card brings several advantages to customers. Unlike credit cards, which often come with annual fees, late payment charges, interest charges, and other costly extras, debit cards typically have few or no fees attached to Lustsik (2004). Further, debit card facilitates people with smooth transaction where people confront many difficulties when paying cash especially unrounded amounts with cents. Moreover, it enables people to purchase 24 hours and seamless shopping as confident as they have got physical cash. Higher security, zero liability, exclusive discounts, and offers on the card have increased its usage now than ever. On the other hand, debit cards make a substantial impact on the operational effectiveness of the institute reducing paper works, delays, than cost reduction (Mwatsika, 2016). Despite the aforementioned rewards, the debit card associates a few disadvantages too. The debit card has a small transaction fee it is now about Rs.5.00 per transaction however cardholder is charged Rs. 50.00 where the card is used at ATM that belongs to another service provider. Further, due to it is convincing people trend to use the card as much as possible that other hand secretly increases daily expenses where people feel they have got money to expense at the moment.

Electronic Banking and Customer Satisfaction

In this transformational world, people have embraced electronic services than ever and the below piece of evidence illustrates how customers have been satisfied with the electronic mode of services. According to Gronroos (1998), people prefer to use services, and their level of satisfaction increase with e-services quality. The relationship is further confirmed by many service quality studies (See. Parasuraman, Zeithaml, and Berry 1988; Jain & Gupta, 2004). In particular, to the banking sector, Asiyambi and Isola (2018) found that customer satisfaction increase with the degree of e-banking services. Further, Ranaweera and Neely (2013) verified that the quality of E-service is the first step of customers' satisfaction. Moreover, Bei and Chiao (2006), Zhou (2004) also confirmed the relationship between electronic banking and customer satisfaction. Ahmed, (2011) found that adoption of e-banking means accessibility, convenience, security, privacy, content, design, speed, fees, and charges, had positively effected customers satisfaction, loyalty, and word of mouth in Jordanian Commercial Bank. Moreover, the effect of convenience, cost, and privacy, ease of use, personalization, customization, and security on customer satisfaction about e-banking services in the Jordan Banking sector, was seemed positive and significant Altobishi (2018).

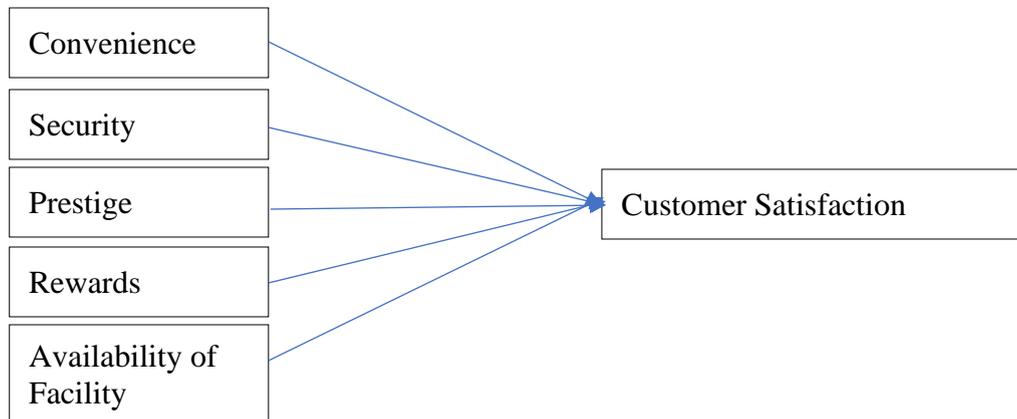
Dimensions of Electronic debit card

There are ample studies have been conducting over the world to measure the impact of electronic banking facilities on customer satisfaction using different dimensions and variables that are often subject to cultural and demographical context. The current study identified convenience, security, prestige, reward, and availability of facility as main dimensions that determine satisfaction of debit card holders on that hypothesis below conceptual framework is drowned.

METHODOLOGY

The study applied a deductive research method and quantitative research approach to find out the level of satisfaction about debit card holders. The conceptual framework explains empirical relationships among variables found through the review of literature, on which five hypotheses stated below, were developed.

Figure 1: Conceptual Framework



H1: Convenience of debit card has a significant impact on customer satisfaction

H2: Security of debit card has a significant impact on customer satisfaction

H1: Prestige of debit card has a significant impact on customer satisfaction

H1: Rewards of debit card has a significant impact on customer satisfaction

H1: Availability of facility of debit card has a significant impact on customer satisfaction

The study used a self-developed questionnaire which contained 34 questions covering demographic, independent, and dependent variables, for data collection were randomly selected 397 individuals at bank premises responded to the survey. Data were collected especially from Sabaragamuwa province from June 2019 to November 2019. Collected data were analyzed through SPSS and there different statistical tests (Correlation, regression) that supported testing research hypotheses such as correlation and regression were used.

DATA ANALYSIS

Table 01 explained the basic background information of survey respondents. According to the statistics that appeared in the table, 51.1% of respondents were male and about 73.6% of respondents were married. The age of the respondents ranged from 14 to 56+ and the majority belongs to the 26-35 age category. More than half of the respondents had Advanced Level or higher education of which 18% of them were graduates. Monthly income that has a substantial influence on debit card usage was also checked and it was found that the majority about 43% of respondents earned between Rs. 30000.00- Rs. 60000.00 monthly and nearly 10% of respondents earned Rs. 90000.00 or more monthly. The study further found that 90.2% of respondents have been using any debit card issued by any financial institutes in the country.

Table 01: Demographic profile of the sample

Category	Percentage	Category	Percentage
Gender		Marital Status	
Male	50.6 %	Married	73.6%
Female	48.4 %	Unmarried	26.4%
Education		Age	
Primary	3.8 %	14-25	16.9%
O/L	27.7 %	26-35	35.3%
A/L	50.1 %	36-45	29.5%
Graduate and above	17.9 %	46-55	15.1%
		>56	3.3%
Monthly Income		Debit Card Usage	
<30000	40.1%	Yes	90.2%
30000-60000	45.3%	No	9.8%
60001-90000	6%		
90001 -120000	2.8%		
120001-150000	2.5%		
> 150001	2.3%		

The debit card often provides a number of facilities to its holders, therefore the study aimed to test the level of customer awareness about such facilities and how far these facilities are used by cardholders in day to day transactions. Descriptive statistics of the study indicate that 99% of card holders knew that the card could be used for cash withdrawal at ATMs and 92% of them knew that it could even be presented to shops when purchasing instead of cash. Further, 80% of respondents aware of the bill payment facility, and 74% aware of the fund transferring ability of the debit card. Moreover, the card could be used for online transactions (75%).

It seems in the study that cardholders are sufficiently aware of the facilities they can enjoy through the debit card but the below statistics indicates that practical application of the debit card instead of cash withdrawal is somewhat questionable.

Usage of Debit card facilities	Percentage
Bill payment	5.6
Purchasing grocery items	26.9
Purchasing shopping items	51.5
Fund Transfer	3.6
Online purchase	12.4

Table 02: Usage of Debt card Facilities

The debit card often provides several facilities to its holders, therefore the study aimed to test the level of customer awareness about such facilities and how far these facilities are used by cardholders in day to day transactions. Descriptive statistics of the study indicate that 99% of cardholders knew As per table 02 statistics, the majority of respondents about 51% had used a debit card for shopping purposes. The debit card often facilitates card holders to pay the exact amount of bills at the time of purchasing without any problem, has encouraged card holders to use the card instead of cash in shopping. However, only 26.9% of people used a debit card when purchasing grocery items daily. Only 5.6% of respondents had used the card for paying monthly utility bills, and 12.4% of respondents used it for the online transaction. Moreover, the study found that card holders tend to use real money when the transaction is below Rs. 5,000.00 and above Rs. 50,000.00.

This lower application of debit cards was caused by many factors. As per the study, 53% of respondents

Table 03: Descriptive statistics and Cronbach's Alpha

Variables	Mean	Cronbach's Alpha
Convenience	1.86	0.952
Security	1.97	0.858
Prestige	3.05	0.687
Rewards	3.21	0.717
Availability	2.13	0.819
Satisfaction	1.98	0.736

The study measured the “convenience, Security, prestige, rewards, availability” variables through four Likert questions each and the overall mean value of the convenience, security, and availability as indicated in table 03, were 1.86, 1.98, and 2.13 it's ranged between Strongly Agree to Agree. The

respective questions to the variables were internally consistent as the Alpha value exceed 0.7 in all three cases. Accordingly, respondents agreed that the debit card was convenient to handle, has high-security protections and a payment facility is significantly available.

As stated in table 03, the overall mean value of “Prestige and Rewards” were 3.05 and 3.21. It ranged from moderate to dissatisfy level. The Cronbach value of prestige is 0.687 that was below the threshold however the amount could be accepted for the analysis as it gets more close to 0.7. The reliability value of rewards was 0.717 it exceeded the threshold value. Therefore, it could be concluded that questions used to measure prestige and rewards were internally consistent. However, study results indicated that respondents were neither happy nor unhappy about the prestige and rewards they received as means of a debit cardholder.

The dependent variable, customer satisfaction recorded its overall mean value of 1.98 and 0.736 alpha value. According to the mean value cardholders are more satisfied with the debit card especially the time taken to issue a card, security steps taken, entitle benefits, charges, and fees, and times have taken to solve any problems associate with the card.

Hypothesis Testing

In order to test the developed research hypotheses, study conducted correlation and regression tests and the result were stated in table 04.

Table 04: Correlation and Regression Results

Variables	Correlation Coefficient	Regression Coefficient
Convenience	.457**	0.285**
Security	.272**	0.054
Prestige	0.027	0.105
Rewards	.209**	0.075
Availability	0.344**	0.198**

** Significant at the 0.01 level (2-tailed).

R Square 0.345 ANOVA = 0.000

As per the correlation test statistics in table 04, the correlation coefficient of convenience, security, rewards, and availability was 0.457, 0.272, 0.209, and 0.334 respectively and their respective sig value was less than 0.05. Therefore, the study concludes that except for prestige where the sig value

is greater than 0.05, all other variables have statistically significant correlations with debit cardholders' satisfaction.

As per the regression result indicated in table 04, the R Square value of the regression line was 0.345 it indicated that about 34 percent variation of the dependent variables was explained by the selected independent variable of the study. Test ANOVA got significant and it indicated that the developed model is strong enough to predict the explanatory power of independent variables. The regression coefficient of convenience and availability were 0.285 and 0.198 respectively and its complementary sig value was also less than 0.05. Accordingly, the study accepted hypotheses 1 and 5, stating that convenience and facility availability have a significant impact on debit cardholders' satisfaction. Convenience means in the study is that the card can be handled effectively in transactions, pay exact amount to even sense, the holder does not want to keep physical money and it save cardholders time limiting the number of bank visit. The availability means the card can be used at any point of payments around the country and event vendors also willing to accept cards rather than physical money. Study findings supported many previous studies. People tend to use more electronic payment facilities if they have adequate knowledge about their usage and supportive infrastructure for the payments (Eelu & Nakakawa, 2018). Further, cardholders' mental predisposition largely contributes to adoptions to digital payments, their electronic debit card is largely used if cardholders feel that it is more convenient and safe the card than physical money (Gokilavani, 2018; Tella, 2012). This gigantic application of electronic debit cards is largely fueled by developing information technologies and the innovation of mobile devices (Hock-Han & Hway-Boo, 2016).

However, the regression test rejected H2, H3, and H4, accordingly it could be concluded that security, prestige, and rewards did not significantly influence the satisfaction of debit cardholders in Sri Lanka. Security is one of the foremost factors considered by customers when using an electronic debit card, however in the study level of security no more enhances cardholders' satisfaction. Roy & Sinha, (2017); Kulathunga & Ekanayake, (2019) found that there was a negative insignificant impact of security on online payment. However, the findings were contradictory with many previous studies where security had significantly influenced electronic payment card usage (Maaitah, et al, 2015); (Gokilavani, et al, 2018) (Mashayekhi, 2016) (Hanzaee & Alinejad, 2012).

CONCLUSION AND RECOMMENDATION

An electronic debit card has never been popular in past than now but the majority of cardholders seem to use the card only for withdrawal rather utilizing it for other purposes. Hence, the present study aimed to identify the level of customer awareness about debit card facilities and customers' satisfaction with the card. It was noticed in the study that all most all the customers were well aware

of the facilities the debit card offers, however, indeed the actual application of the debit card for facilities such as bill payment, shopping, purchasing grocery items, online transferring were very low is mainly affected the feeling that people still love using physical cash in daily transactions and people fear that if they get addicted to using a debit card frequently they may use it for unnecessary expenses. Further, it was found in the study that still about 9% of cardholders were not properly aware of the application of debit card in day to day transactions. Accordingly, the study highlighted the facts that debit card was introduced by banks and financial institutes instead of real cash two decades ago, still, people feel real cash is more convenient than the card indicates that adaptation to digital money is progress with a slow speed. So, the responsible institute should consider the situation and take the necessary actions to make the card more popular among the people. Secondly, a study found that people very often use a debit card for the transaction when its value is between Rs. 5,000.00 and Rs. 50,000.00.

Finally, the study hypothesises that convenience, security, prestige, benefits, and availability of facility have a significant impact on the satisfaction of debit cardholders. The study, however, confirmed only the impact of convenience and availability of facility on the satisfaction of debit cardholders. Accordingly, it seems in the study that people do not use the debit card to impress themselves among others. Further, not like a credit card, people never chase on special discounts, offers, and any other benefits that can entertain as a card holder, in payments. Moreover, the existing security framework does not satisfy card holders as expected. However, cardholders' satisfaction is significantly determined by the convenience of the card and facility available at the paying point. Therefore, if financial institutes wish to promote debit card usage and swell cardholder satisfaction, they could more focus to establish electronic payment facilities around the country for convenient transactions.

REFERENCES

- Ahamed, K.M.A., Al-Zu'bi, H.A (2011), E-banking Functionality and Outcomes of Customer Satisfaction: An Empirical Investigation, *International Journal of Marketing Studies*,3(1), 50-65.
- Altobishi, T., Erboz, G., Podruzsik, S (2018) E-Banking Effects on Customer Satisfaction: The Survey on Clients in Jordan Banking Sector, *International Journal of Marketing Studies*, 10 (2), pp- 151-161
- Asiyanbi, H., Ishola, A. (2018). E-Banking services impact and customer satisfaction in selected bank branches in Ibadan metropolis, Oyo state, Nigeria. *Accounting*, 4(4), 153-160.
- Avsar, A. (2005). Risks encountered in electronic banking. *Journal of Eskişehir Chamber of Industry*, Vol.33, pp.52.
- Bei, L. T., Chiao, Y. C. (2006). The determinants of customer loyalty: An analysis of intangible factors in three service industries. *International Journal of Commerce and Management*, 16, 162-177
- Central Bank of Sri Lanka, 2020. *Payment Bulltin*. Colombo: Central Bank of Sri Lanka.
- Charles Mwatsika, C. (2016). Factors Influencing Customer Satisfaction with ATM Banking, *International Journal of Academic Research in Business and Social Sciences*, Vol. 6(2): 26-41.

- Eelu, S., & Nakakawa, A. (2018). Framework Towards Enhancing Adoption of Electronic Payment in a Developing Economy: A. *The African Journal of Information Systems*, 222-245.
- Gokilavani, R., Kumar, D., Durgarani, M., & Mahalakshmi, R. (2018). Can India move towards digital sovereign currency? *International Journal of Pure and Applied Mathematics*, 2167-2175.
- Gronroos, C. (1998). Marketing services: The case of a missing product. *Journal of Business & Industrial Marketing*, 13, 322-338.
- Hanzaee, K., & Alinejad, S. (2012). Investigate about customer perception of security and trust in e- payment systems among Iranian online customers. *Journal of basic and and applisd scientific Research*, 157-158.
- Hock-Han, T., & Hway-Boon, O. (2016). Cashless payment and economic growth. Springer, Heidelberg: ECONSTOR.
- Jain, S. K., Gupta, G. (2004). Measuring service quality: SERVQUAL vs. SERVPERF scales. *Vikalpa*, 29(2), 25-38.
- Karjaluoto, H., Mattila, M. and Pentto, T. (2002). Factors underlying attitude formation towards online banking in Finland. *International Journal of Bank Marketing*, Vol. 20 No. 6, pp. 261-272. <https://doi.org/10.1108/02652320210446724>
- Kulathunga, D., & Ekanayake, K. (2019). Antecedents to Adoption of Electronic Payment system in Sri Lanka. *Scientific Research Journal*, 30-37.
- Lustsik, O. (2004). Can E-Banking services be profit-able? *University of Tartu Economics and Business Adminis-tration Working Paper*, No.30-2004, doi:[10.2139/ssrn.612762](https://doi.org/10.2139/ssrn.612762)
- Maaitah, T., Osman, A., Suberi, M., Maaitah, D., & Dhmour, F. (2015). Review study on the security of electronic payment system. *International journal of economies, commerce and management*, 821-828.
- Mashayekhi, Y., & Mashayekhi, H. (2016). Factors influencing adoption of e- payment systems: an empirical study on Iranian customers. *Information systems and e -business management*, 1-26.
- Porto, N., Xiao, J.J. (2017). Credit card adaptation and usage in China: Urban –Rural comparison, *The Singapore Economic Review*: DO - 10.1142/S021759081743010X
- Premachand, A., & Choudhry, A. (2015). Future of payments- e payments. *International journal of emerging technology & Advanced engineering*, 110-115.
- Parasuraman, A., Zeithaml, V. A., Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Ranaweera, C., Neely, A. (2003). Some moderating effects on the service quality-customer retention link. *International Journal of Operations & Production Management*, 23, 230-248.
- Roy, S., & Sinha, I. (2017). Factors affecting customers' adoption of electronic payment. *Journal of business and management*, 76-89.
- Timothy A (2012). Electronic Banking Services and Customer Satisfaction in the Nigerian Banking Industry. *International Journal of Business and Management* 2(1), 1-8.
- Tuilan, B., Pangemanan, s., & Tielung, M. (2018). Analyze consumer perception of the use of electronic payment in Manado. *Journal EMBA*, 3653-3662.
- Tella, A. (2012). Determinants of E- payment system success. *International journal of E-Adoption*, 1-25.
- Wijerathna, N (2011). Electronic payment systems in Sri Lanka. 23rd Anniversary convention, p189-198
- Zhou, L. (2004). A dimension-specific analysis of performance-only measurement of service quality and satisfaction in China's retail banking. *Journal of Services Marketing*, 18, 534-546.