Usage of Internet Banking in Urban Poor during Covid 19 Pandemic

Werake W.M.M.S.K

Department of Economics, University of Kelaniya, Sri Lanka

senanik@kln.ac.lk

ABSTRACT

The banks are trying to popularize the concept of Internet banking among their customers to meet the ever-increasing traffic in physical bank premises. Compared to some developed and developing countries, Internet usage to engage in banking activities is at a primary stage in Sri Lanka, mainly restricted to checking bank balances. However, Internet banking has entered a new path with the COVID-19 pandemic that Sri Lanka faced from the year 2020. In particular, urban Poor people are usually left out of the formal financial system and adoption of technology. These people are constrained by both the demand and supply sides to reach the door of technology. Among the challenges they faced were a lack of financial illiteracy, a Negative perception of technology, Irregular Income, a Lack of trust. Even though there are information technology companies and financial companies in the urban area, a large segment of the population is excluded from using the technology. This paper aimed to identify factors that affect internet banking usage in the urban poor during the COVID-19 pandemic. The article discusses research on factors affecting Internet banking usage, the advantages of Internet banking and the status of Internet banking during the covid 19 pandemic.

Primary data was collected through a semi-structured questionnaire from 200 urban low-income customers in the Colombo divisional secretariat. Data were analyzed using a binary logistic regression model. The study results have shown that income, education, and benefits of Internet banking positively impact Internet banking usage of urban poor. According to that, there is a need to study the financial inclusion of the urban poor to formulate appropriate strategies for increasing the inclusion of the urban poor. Therefore, urban poor people should be fully and effectively educated about Internet banking, and it helps to identify which policies and programs should be designed for the urban poor.

Keywords: Internet Banking, Urban poor, Usage, Technology, Covid 19

INTRODUCTION

Internet banking, also known as online banking, e-banking, or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. Otherwise, E-banking, virtual banking, online banking, and electronic banking relate to the same concept of 'Internet Banking'. Since the introduction of the facility in the early 1980s in The United States of America, the world soon grabbed onto the concept due to the significant benefits it brought to the banking industry. Banks and financial institutions, too, were eager to adopt this new

technology to cut costs while maintaining reliable customer service. (Jayasiri, and kariyawasam, 2016). We all know Internet Banking is becoming popular in every part of the world, and Mauritius is one country where many people are adopting Internet Banking. Also, online banking doesn't require consumers to visit a bank branch to complete most of their basic banking transactions. They can do all of this at their convenience, wherever they want—at home, at work, or on the go.

However, when we consider the history of Internet banking, Online banking was initially used in 1981 in New York, where major financial institutions including Citibank, Chase, and others offered home banking services using a technique known as videotext. In October 1994, Stanford Federal Credit Union was the first to provide Internet banking services. In some European countries, online banking has been adopted differently. It was seen that most banks, which were of medium size, used Internet banking at the very start. However, when comparing the response rates of North Europe with those of the South, it could be deduced that the Northern Europeans adopted online banking at a quicker pace. In early times, e-banking depended on the level of education, and in some parts of Europe, there were more highly educated people than in other regions. Also, when we are focusing on the Internet banking history of Asian countries, in January 2015, the online bank created by Tencent started a 4-month-long online banking trial operation, and in India, in 1998, ICICI Bank introduced Internet banking to its customers, and there are both public and private banks in Sri Lanka. Sri Lanka was the first South Asian country to introduce unrestricted, commercial internet connectivity in April 1995. Since it was first made available to Sri Lankans in March 1999, Internet banking services are now available via the Internet.

Contrary to expectations, clients are still in the beginning. For a nation whose internet usage is 8.3 percent, Only Internet banks and completely committed Internet users will not reach penetration for several more years. The banking sector in Sri Lanka has undergone a rapid transformation with the adoption of ICT (Information Communication Technology)-based banking solutions. The widespread usage of ICT in Sri Lanka's banking sector began only in the late 1980s with the introduction of the first ATM by HSBC Bank in 1986. The most recent delivery channel introduced for financial services is the Internet or Online banking.

On the other hand, it is the latest, most innovative, and most profitable banking service the banks offer. The Internet was first used as a platform for providing banking services in the

USA in 1995. In just a few years, this new channel has rapidly gained popularity in almost all developed countries and many developing countries.

In this way, the beginning and evolution of Internet banking can be pointed out. However, when focusing on Internet banking usage in Sri Lanka, Internet banking, which allows bank customers to access banking services conveniently and efficiently through the Internet, was introduced in Sri Lanka in 1999. Financial institutions offer facilities through Internet banking for customers mainly to obtain account information, apply or subscribe for financial products/services, perform their account/third-party fund transfers and pay utility bills. Reflecting the growing popularity of Internet banking, the volume of financial transactions affected by Internet banking continued to increase during the first quarter of 2019. It may be mainly due to customer convenience, time-saving benefits, and various promotional measures and awareness programs carried out by banks to enhance Internet banking usage (Arun, 2019). There were 11.34 million internet users in Sri Lanka in January 2022. Sri Lanka's internet penetration rate stood at 52.6 percent of the population at the start of 2022. "Bank enlarged the Internet customer base up to 23,000 and 300% increase in the number of transactions and 55% increase in the number of users".

Furthermore, it was implied that banks devote significant resources to creating online banking options due to their advantages. Internet usage in Sri Lanka has expanded significantly over the past five years (Amarasingha, 2014). In Sri Lanka, the use of the Internet and related technologies has steadily increased. The design and delivery of personal financial services are being rapidly altered via digitalization. In an effort to streamline operations and cut expenses, private and public banks in Sri Lanka are currently attempting to implement fresh concepts into the online banking system. Banks invest considerable money in enhancing and modernizing their online banking platforms. Instead of focusing on making a profit, banks established Internet banking primarily to satisfy their consumers, who can now conduct financial activities from any location without having to stand in line. Jegatheesparan, (2020) examined that research on online banking usage can all be used to gain a greater understanding of the advantages of online banking, the variables that influence its use, and the actions being taken to enhance online banking services in the future. By being aware of these aspects, banks can create rules and improve services that will assist them in eventually drawing in clients.

Despite the numerous benefits of online banking, Sri Lankan bank customers remain hesitant to embrace it. The banking and financial sector was one of Sri Lanka's first industries to adopt information and communication technology. It now ranks among the technology users who

utilize it the most. A bank may use the Internet to conduct financial transactions or provide customer services. Internet banking may be unfair in a global competition where Sri Lanka's number of operations is hardly significant compared to the overall situation. The first domestic, commercial bank only began providing transactional-level Internet Banking services in 1999. Hence, Sri Lanka has little time to establish its Internet banking industry. Sri Lankans are much less likely than those in other countries to use internet banking. (Aruna, 2019) Although the clients are aware of the Internet banking option, many are hesitant to use it for their banking operations. Local domestic banks must completely utilize the Internet to increase their productivity and profitability to compete with the competition from globalization. Growing online banking in Sri Lanka is crucial because it is a developing nation. There have been few studies about how customers in Sri Lanka perceive online banking. Additionally, policymakers pay less attention to the Internet banking service.

However, The COVID-19 outbreak, an unprecedented global health crisis that emerged in late 2019, has led to many adverse social and economic implications, necessitating countries to introduce new strategies and financial measures to overcome the ensuing negative situation. The lockdown measures implemented due to the COVID-19 outbreak have restricted cross-border movement of people and goods, disrupting economic and trade activities worldwide. Along with this global epidemic situation, there were drastic changes in the financial system of Sri Lanka, which had a significant impact on the banking system of Sri Lanka (Buddhika & Gunawardana, 2021). Internet banking has always been important for account holders nowadays, and the customer's experience with banking is significant. Accordingly, the recent covid 19 epidemic has managed to pose a great threat to the banking system, customers, and employees. Here, the banking system observed that customers are referring to Internet banking. However, with the COVID-19 pandemic, rumors of the virus spreading through currency notes have led people to turn to internet banking increasingly. Due to the lockdown situation in Sri Lanka and the virus's rapid spread, more people are accessing internet banking. Also, due to the COVID-19 epidemic, people turned to Internet banking, and thus, there was an increase in technical knowledge.

This paper aims to identify factors that affect Internet banking usage in the urban poor. The rest of the paper is structured as follows. The next section of the paper presents a broad review of the theoretical and empirical base on Internet Banking and its adoption. Section 3 discusses the results and discussion of the findings. Section 4 of the paper presents the conclusion drawn from the research.

LITERATURE REVIEW

The literature review aims to identify existing literature on the usage of Internet Banking in low-income customers.

Theoretical Background

The twenty-first century was characterized by information and communication technology, which has revolutionized our working and living patterns. A new era of banking, e-banking or Internet banking has emerged, where customers can perform their financial transactions electronically. After that, In 1986, Fred Davis developed the Technology Acceptance Model (TAM) for his doctoral dissertation. The Technology Acceptance Model, created by Davis (1989), is one of the most critical research models in studies of the factors influencing the acceptance of information systems and information technology. It is used to forecast people's intentions to use and attitudes toward information systems and information technology (Pallant, 2017).

Customer satisfaction is a general principle of customer service. It measures a customer's perception of the quality and utility of a product or service. Customer satisfaction can be measured by offering a service or product or having a relationship with a company, brand, or individual. Fred Reich introduced customer satisfaction theory in his book The Ultimate Question: Driving Good Profits and True Growth, published in 2003. Also, an asset of satisfied customers is the natural diamond for any organization and creates a competitive advantage over other companies.

Factors Affecting the Usage of Internet Banking

When we are considering factors affecting the usage of Internet banking, five factors were taken into consideration. There is perceived usefulness, perceived ease of use, perceived risk, subjective or social norms and behavioral intention, out of which social norms had a significant impact, showing that reference groups play an important role in Internet banking. Behavioral intention proves to be one of the maximum influencing factors, as most respondents had a positive response (Musiime & Malinga, 2011). It shows that with Internet banking, people in a very short time can visit several online banks to compare what they are offering, savings and checking account deals as well as their interest rates. Also, it provides a great deal more convenience than a conventional bank. The factor Perceived Risk came lower, which showed that respondents believe that their online information is not secure. People are sure that there

is no privacy when using this service and a possibility of facing problems while making transactions, and there is high uncertainty and risk about banks' actions with errors occurring during online transactions. It has already been discussed in detail in the studies of Chung and Paynter (2002), Siu and Mou, (2005), and (Limsombunchai and Weng, (2006) cited in (Agrawal & Vohra, 2012). It can see that similar results came out of their studies.

The usage of Internet Banking is not much affected by the global recession. The number of users is continuously growing as Internet Banking provides an easy and one-stop solution to all banking facilities and is safe and secure if accessed through the proper banking channel. The banking environment is more different and competitive due to the continuous and rapidly changing business environment in information technology. Moreover, modern banking services have brought in a paradigm shift in banking operations. Many banks have developed internet-based service models to increase customer transactions. As a result, banks have to adjust their strategies to achieve the current economic conditions. Nowadays, people are so busy in their work lives that they need more time to go to the bank to conduct their banking transactions. All banks provide online banking facilities to their customers as an added advantage. Online banking involves consumers using the Internet to access their bank accounts to undertake banking transactions. Internet banking involves the provision of facilities such as accessing accounts, fund transfers, utility bill payments, Deposits, and credit card payments. Online banking constitutes a fusion of conventional banking and web technology. Internet banking has improved service quality and superior service in the banking sector and also helps banks reduce costs (Jegatheesparan, 2020).

Also, according to the study conducted by, Kolinsky millions of Americans are currently using a variety of e-banking technologies and millions more are expected to be “online.” their paper explored factors affecting the adoption or intention to adopt three e-banking technologies and changes of the factors that affecting over time. This study found that relative advantages, complexity/simplicity, compatibility, risk tolerance, and product involvement are associated with adoption. Income, assets, education, gender and marital status, and age though adoption changed, the impacts of other factors on adoption have not changed overtime. (Kolodinsky & Hogert, 2004).

Benefits of usage of Internet banking

All people can access many banking services online. These services include paying bills, transferring funds, and viewing account statements. Banks also deliver their latest products and services online (Kumar et al., 2016). Internet banking is performed through a computer system that can connect to the banking site. We can also use internet banking on our mobile phones, Wi-Fi, or any connection. Online banking has become quite popular with the easy availability of cybercafes and mobile phones in India and China. When considering the advantages of Internet banking, it is simple to open and very easy to operate, quickly pay bills and transfer funds between accounts. People do not have to stand in a queue to pay off their bills. Also, people do not have to keep receipts of all of their bills, as they can now easily view transactions, perform tasks from anywhere and at any time, even at night or on holidays when the bank is closed, and manage several accounts easily through the Internet banking, people can keep an eye on their transactions and account balance all the time (Agarwal, 2022). Technology has been a driving force in changing business processes and the quality of services. Internet banking has become an essential and necessary factor in business strategy. They further add that the new electronic system, especially the development of Internet business in the last century, has significantly impacted how business is conducted.

Banks and the online service providers need to come together to bring a revolution in the field of online banking. There is also a need to generate awareness about online banking. Because that more and more people use it for their benefit. There have been a number of advantages of online banking and these advantages led to the increase in the number of online banking customers today. Customers are highly satisfied with online banking systems due to several reasons. Customers can avail of various types of facilities through the online banking system. They can check the account Customers is also highly satisfied because of the ease of transfer of payments. The Customers used to stand a long queues in banks to deposit money to their accounts. The customer's feelings, complaints and feedback cannot be accessed to directly facing the services. It has been a positive impact on the behavioral intentions of customers' acceptance of online banking. (Mahalakshmi & Kalaiyarasi, 2016)

The financial industry has witnessed a faster change in technology, greater competition among enterprises, and increased customer needs. Technology-based transactions influence the thinking and the operational response of the banks. Barnes and Howlett say that E-business has changed the traditional relationship between banks and its customers and has reduced the

personal contact between them (Hoehle et al,. 2012). This changing scenario has an impact on the operating practices in the banking industry. The advantages include customer convenience, more beneficial rates to customers, additional free services, mobility i).erations, unlimited transfers at no cost, ease of use, and environmentally friendly. Furthermore, customer convenience: Customers can access and do transactions 24 hours a day, 365 days a year. It also observed that convenience is essential in supporting Internet banking.

However, if the internet service is unavailable, customers can still do their work via mobile telephones. Banking through the Internet is faster, easier, and more efficient. More beneficial rates: Banks offering Internet banking services, especially direct banks that do business only through the Internet, save money due to less or very little infrastructure and overhead costs. They can pass on these savings to their customers in the form of higher interest rates, lower rates on loans, and lower mortgage charges. In addition, the benefits are also offered in other forms, like no minimum deposits and carry no minimum balance or service fees. Additional free services: Additional free services offered to the customers include payment of bills online, such as electricity, water, and telephone bills. Banks also provide management tools to customers to carry out budgeting, forecasting, financial planning, loan calculations, investment analysis, etc. Mobility in transactions: Internet banking can be done from anywhere at a convenient time. The banking facility through mobiles and smartphones is an additional advantage. Unlimited transfers at no cost: Internet banking can automatically transfer funds from one account to another. They also do payroll payments and automatic bill payments per the customer's direction. Ease of use: Online banking enables similar transactions to that of traditional banking. In case of a problem, the customer can get assistance online or by email (Obeidat, 2016). Internet banking is perceived to be converted in every way and is one of the main critical factors affecting Internet banking usage. However, client banking requirements will always have to start on the next business day. Also, Transactions, transaction processing, and data transfer happen almost instantly in Internet banking. Georgia Institute of Technology Atlanta Report (2004), Internet banking security is a significant factor affecting its usage. Furthermore, Internet banking can provide banking activity at the lowest cost possible (Kariyawasam, 2016).

Internet banking and the COVID-19 pandemic

When considering Internet banking services during the COVID-19 epidemic, COVID-19 has changed people's lives and made purchase decisions. The fear of COVID-19 is life-threatening

for people around the world. However, students are restricted from taking a class online, teachers and officials need to have online meetings, and Markets are focusing on electronic means, too. It is identical in the banking sector that digital means are getting popular as account holders are already leaning toward online banking. COVID-19 has shut down business worldwide and put a considerable number of people below the poverty line. Also, many opportunities are created, e.g., for information technology businesses, health care, and security firms. Traditional banking has declined during COVID-19, and consequently, an increase in e-banking platforms is observed. Thus, the empirical potential to evaluate the banking services is needed to understand the behavioral changes (Haq & Awan. 2020). Internet banking allows a user to conduct financial transactions via the Internet. Also, online banking is also known as Internet banking or web banking. Internet banking offers customers almost every service traditionally available through a local branch, including deposits, transfers, and online bill payments. During the Covid19 situation, the Government has implemented a lockdown from March 2020 to August 2020. Due to this, most of the industries and organizations are closed. Furthermore, most of the people lost their jobs. However, banks were allowed to function with limited staff and in certain areas.

So, people cannot come out for their regular banking needs, and they find it difficult, and the banks ask their customers to use Internet banking services. Hence, the need for Internet banking has increased during the covid19 situation. The Reserve Bank of India (RBI) said that 57 percent of customers use Internet banking. Then Internet banking is most important for the customers. According to health recommendations, avoiding personal contact is one of the most effective ways to contain the current COVID-19 epidemic. It means reducing the movement of people and increasing the time they spend at home as much as possible. Most banks in the affected countries have reduced the opening hours of their branches, and they recommend that their customers use Internet banking. To encourage the use of this channel, many banks have taken the opportunity to send out positive messages and remind their customers of the benefits of Internet banking. Many banks have also tried to promote Internet banking by sharing tutorials and expanding the types of transactions customers can carry out remotely. The role of banking in the COVID-19 situation: However, people still require banking services, and even minimal in-branch services, because not all users will immediately transition to online channels Dauda & Aliu, 2022).

For example, elderly customers, who are among the most vulnerable to COVID-19, are the least likely to increase their use of internet banking. Use of Internet banking services by age range in Europe shows that among users between 55 and 64 years of age, 48% use Internet banking, less than half, and among those aged between 65 and 74, the figure is even lower at 33%. In any event, however, the increase in the adoption of Internet banking services is being driven by the pandemic and the health restrictions in place; as a result, it could bring about positive change in the medium and long term (Cherukur &Sivakumar, 2020). The current world is unified with expanding on the web admittance to administrations. One piece of this which is growing is E-banking. E-banking is otherwise called electronic banking or Internet banking. Web-based banking permits a client to manage monetary exchanges utilizing the Internet.

Internet banking offers clients almost every help customarily accessible through a nearby office, including stores, moves, and online bill installments. During the COVID-19 pandemic, the Government announced a lockdown from March 2020 to August 2020. Because of this, the greater part of the organizations and associations were shut down, and many lost their positions. Also, banks were permitted to work with restricted staff and in specific regions. Along these lines, individuals cannot come out for their customary requirements for banking, and they think that it is troublesome. The banks request that their clients utilize Internet banking administrations. Hence, the need for E-banking increased during COVID-19, and the Reserve Bank of India (RBI) said that 57 % of customers are using online banking. The banks concentrated more on online banking for the better experience and satisfaction of the customers. As per wellbeing proposals, avoiding individual contact is one of the best approaches to contain the current COVID-19 pandemic. It implies decreasing the development of individuals and expanding the time they spend at home however much as could reasonably be expected. Following these signs, most banks in the influenced nations have decreased the opening times of their branches, and they suggest their customers utilize web-based banking. To energize the utilization of this channel, many banks have made a move to convey positive messages and help their customers remember the advantages of Internet banking. These advantages incorporate the simplicity of completing any exchange all day. A few banks have additionally attempted to advance Internet banking by sharing instructional exercises and growing the kinds of exchanges customers can do distantly. The banking industry has declined during COVID-19, and thus, expansion in e-banking stages is noticed. Electronic banking

constructed a productive progression of administrations furnished with diminished functional and fixed expenses with more security highlights joined (Chavda, 2021).

In Sri Lanka, financial services are marked as essential services. All these new trends place customer convenience at the heart of future banking. Banks are now presented with more opportunities than ever due to COVID-19 impacts and are facing an exciting future. In this COVID-19 pandemic, Internet banking applications have made a sudden gigantic push in terms of number of users. COVID-19 social distancing spotlighted digital delivery and digital transformation in banking services. The COVID-19 pandemic created a shift in behavior, as people are forced to use Internet banking from their mobile devices. During this unique time, banks leverage their client experience with digital product advantages more than ever. More importantly, as consumers get more comfortable and find that managing their money digitally is more accessible and safer, they will stop visiting their bank branches in the future (Sureshkumar, 2020). Internet banking and E-payment usage have improved customer's life by providing ease of payment for online transactions. The effect of intention, attitude, perceived usefulness, and ease of use have long been recognized in Internet banking. However, very few studies have examined these concepts from the viewpoint of the COVID-19 pandemic. The findings suggested that intention to use online banking significantly influences online banking and e-payment usage. Similarly, attitudes toward online banking significantly impact the intention to use online banking and e-payment during the COVID-19 pandemic (Agarwal, 2022).

METHODOLOGY

Study Population: The field of study is the Colombo district. Colombo district was chosen because Colombo is the commercial hub and the fastest-growing city in Sri Lanka, and it has the leading information technology companies and financial institutions. At the same time, Colombo has the largest slum area in the country and consists of a low-income population. Colombo remains diverse in terms of its ethnic mix, economic activities, and income disparities of the city population. Therefore, The population of the study was urban low-income customers in the Colombo district.

Sample of the study: A sample size of 200 low-income customers transacting with BOC and People's Bank branches was taken.

Sampling Method: Purposive sampling was utilized for sample selection. The purposive sampling method was used to select the sample of low-income customers from selected BOC branches and People Bank branches in the Colombo divisional.

Data Collection Method: Primary and secondary data were collected for the research. Primary data was collected through a sample survey utilizing a semi-structured questionnaire evenly distributed to respondents. The questionnaire is designed to collect the required information from the customer. The questionnaire consisted of 20 questions in both closed-ended and open-ended forms. For the secondary data, the Annual reports of the central bank of Sri Lanka, the reports issued by the Department of Census and Statistics, the reports of the Samurdhi Authority of Sri Lanka, and reports of the Colombo and Kolonnawa divisional secretariat have been used. In addition, research reports, books, and journals related to research topics and other publications are utilized.

Data Analysis Method: Data were analyzed using a statistical software package for SPSS version 26.0. The binary logistic regression model was used to assess and identify Internet banking usage. Binary logistic regression analysis is a specialized regression formulated to predict a binary categorical variable. Therefore, this model is appropriate when the dependent variable is binary (Hair et al., 2010). When the use of internet banking, the value "1" is assigned, and "0" no use of internet banking. Therefore, in this study, the logit regression model explained below was used to explain Internet banking usage in the study area.

Y = B0 + B1Ag + B2Edu + B3Gen + B4Inc + B5Dev + B6Obs + B7Ben

Y = Usage of Internet Banking (UIB)

B0 = Constant

B1Ag= Age

B2Edu= Education Level

B3Gen= Gender

B4Inc = Family Income

B5Dev = Device

B6Obs = Obstacles

B7Ben = Benefits

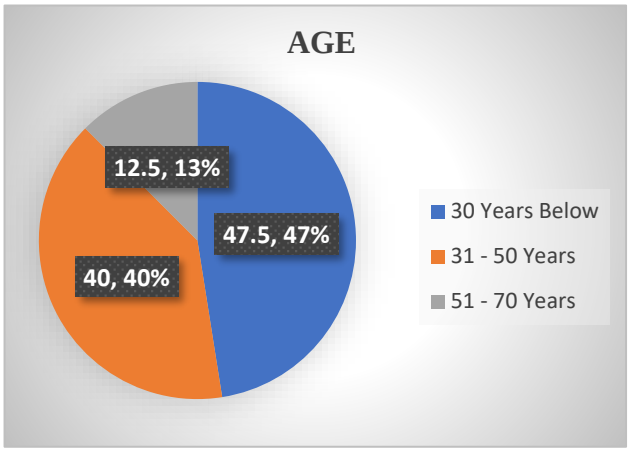
In this equation, usage of Internet banking is considered as the Dependent variable and Binary variable, and Age, Education Level, Gender, Family income, Device, Obstacles, and Benefits are considered as independent variables.

DATA ANALYSIS AND DISCUSSION

Demographic data analysis: This section describes the respondents' demographic characteristics, including the percentages of age, gender, educational level, and family income category of the research sample, in terms of frequency analysis.

Age Composition of the Sample

Figure 1: Age of the sample



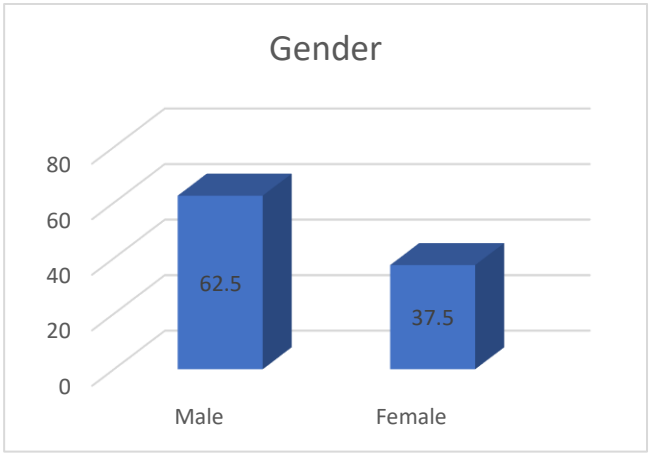
Source: Survey Data, 2023

According to the above pie chart, Internet banking usage is used more by members under the age of 30. It is 47.5% as a percentage. The lowest use of Internet banking is done by members between the ages of 51-70 years, which is 12.5%.

Gender Composition of the Sample

The male's behavior and opinion differ from that of the female. Their opinion plays a major role in using Internet banking. According to that, there are 62.5% males and 37.5% females in the sample, implying that the males are more engaged in Internet banking activities in BOC and People's Bank branches.

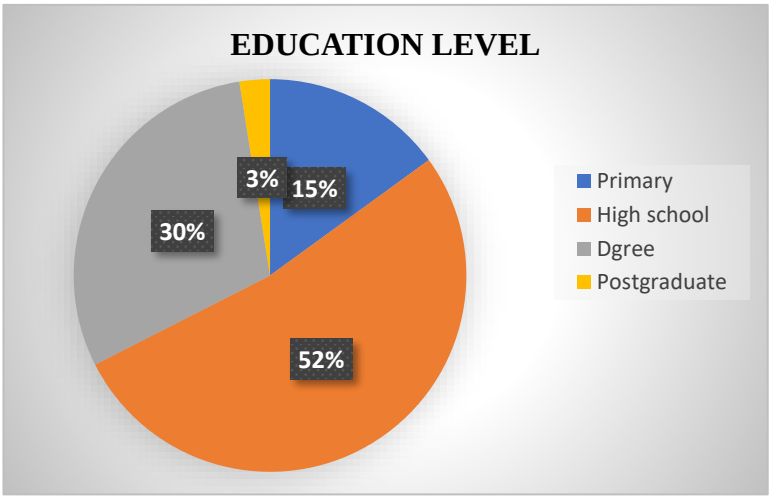
Figure 2: Gender Composition of the sample



Source: Survey Data, 2023

Educational Level Composition

Figure 3: Education level of the respondent



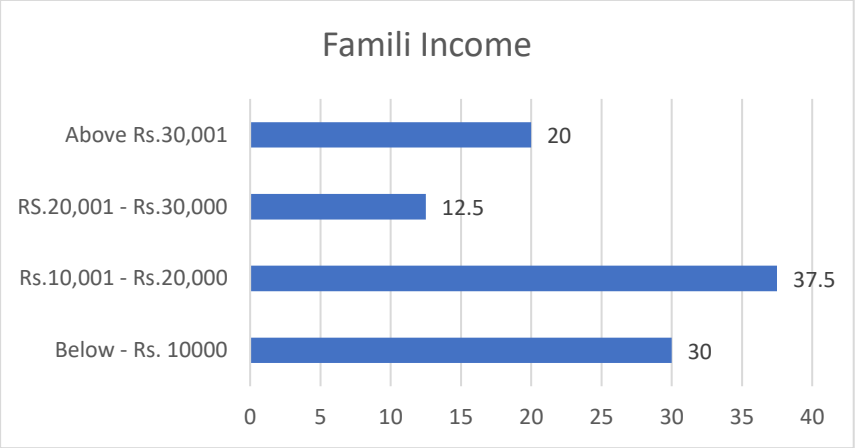
Source: Survey Data, 2023

Regarding the education level, internet banking has mostly been used by high schools. It is a percentage of 52%. As a minimal number of the sample are postgraduates, it shows a percentage of 3%.

Income Composition

To analyze the income status of the sample, the income of the sample was categorized into five categories: less than Rs10000, Rs 10001 to 20000, Rs 20001 to 30000, and more than 30001.

Figure 4: family income of the respondent.



Source: Survey Data, 2023

Figure 04 shows that the majority of respondents belong to the income group Rs 10001, which is 37.5%, and a smaller number of respondents belong to the income category of less than Rs 10000 per month.

Binary logistic regression analysis

Diagnostic Tests

Similar to other multivariate data analysis techniques, important assumptions or diagnostic tests were performed to check the validity of the data for the current binary logistic regression model. Accordingly, diagnostic tests such as autocorrelation and omnibus Tests of model coefficients and Hosmer and Lemeshow tests were used to check model fitness.

Autocorrelation

Autocorrelation is the most celebrated test for detecting correlation, developed by statisticians Durbin and Watson. The regression result shown in the table below the Durbin – Watson d statistics for the current study is 2.307, which is near 2, so we can conclude that the autocorrelation assumption is met, or the residual terms are uncorrelated.

Table 1: Autocorrelation

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	**Durbin – Watson**
1	.752[a]	.566	.471	.27993	**2.307**

Source: SPSS survey output, 2023

Other major assumptions such as normality, heteroscedasticity, and linearity, which are common in many multivariate data analysis techniques, are not compulsory for logistic regression because the error terms of a discrete variable follow the binomial distribution instead of normal distribution, thus invalidating all statistical tests based on the normality assumption. In addition, the variance of the dichotomous variable is not constant, creating instances of heteroscedasticity as well. Moreover, logistic regression does not require linear relationships between the dependent and independent variable; it can address linear effects even when exponential and polynomial terms are not explicitly added as additional independent variables because of the logistic relationship.

Table 2: Model fitness

A. Omnibus Tests of Model Coefficients				
		Chi - square	**Df**	**Sig.**
Step 1	Step	23.134	7	.002
	Block	23.134	7	.002
	Model	23.134	7	.002
C. Hosmer and Lemeshow Test				
Step 1	**Chi - Square**	**Df**	**Sig.**	
	10.438	8	.236	

Source: SPSS Survey output, 2023

The omnibus Tests of Model Coefficients presented above indicate how well the model performs compared to a model with none of the predictors entered. This is referred to as a 'goodness of fit' test. In this case, the value is .000. Therefore, the model is better than SPSS's original guess, which assumed that everyone is included in the usage of Internet Banking service, and it is reported as a chi–square value of 23.134 with 7 degrees of freedom.

The other Statistical measure is Hosmer and Lemeshow's measure of overall fit. This statistical test measures the correspondence of the actual and predicted values of the dependent variable. In our study, the chi–square value for the Hosmer – Lemeshow Test is 10.547 with a significance level of 0.229. This value is greater than .05, therefore indicating support for the model.

Table 3: Model summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	13.965[a]	0.439	0.727
a. Estimation terminated at iteration number 7 because parameter estimates by less than .001.			

Source: SPSS Survey output, 2023

The Cox & Snell R Square and the Negelkerke R Square values provide an indication of the amount of variation in the dependent variable explained by the model / independent variables. These are described as pseudo-R Square statistics, rather than the true R square values that you will see provided in the multiple regression output. In this study, the two values are .433 and .717, suggesting that between 43.3percent and 71.7 percent of the variability is explained by this set of variables.

Table 4: Binary Logistic Regression Estimation Result

Variables	B	S.E	Wald	Df	Sig.	Exp (B)
Age	.507	1.372	.137	1	.711	1.661
Gender	1.486	1.911	.605	1	.437	4.421
Education	1.230	1.545	.634	1	.042	1.292
Income	1.325	1.352	.959	1	.032	3.761
Device	2.106	1.835	1.317	1	.251	8.212
Obstacles	-.378	.912	.172	1	.679	.685
Benefits	2.707	1.250	4.689	1	.030	14.991
Constant	-10.021	5.109	3.848	1	.050	.000

Source: SPSS Survey output, 2023

Table 4 shows us that the estimated model is as follows.

Logit (UIB) = -10.021 + 0.507Ag + 1.486Gen + **1.230Edu** + **1.325Inc** + 2.106Dev – 0.378Obs + **2.707Ben**

The result related to the impact of education on the respondent status towards usage of Internet banking revealed that it had a positive significant impact with a p value of 0.042 and an odds ratio of 1.292, which implies that those who have education about Internet banking had 1.292 times more likely to use of internet banking.

Logistic regression output concerning income indicated that it positively impacted internet banking usage with p value of 0.032 and beta value of 3.761. The results imply that respondents in the higher income category were 3.7 times more likely to use Internet banking facilities.

Benefits, as one of the predictor variables in the model, had a positive significant impact on Internet banking usage with a P value of 0.030 and an odds ratio of 14.991. Also, considering the confidence level, the upper bound is 0.127, and the Lower bound is 0.421. It implies that those respondents who have benefits of using Internet banking are 14.9 times more likely to use internet banking facilities. The benefits of using Internet banking have affected the Awareness and usage of Internet banking during the COVID-19 pandemic. The benefits of Internet banking are the ability to manage time, transact on holidays, streamline the safety net, reduce uncertainty and risk, and reduce transportation costs. Due to these benefits, people are more inclined towards internet banking.

However, results related to age, gender, device, and obstacle indicated that those had a negative significant impact on Internet banking usage.

CONCLUSION

The main objective of this study is to identify the factors that affect Internet banking usage in the urban poor during the COVID-19 pandemic. The research findings revealed insights into the reasons that hinder the usage of Internet banking services in Urban poor. Therefore, based on the findings from the binary logistic regression result, it is possible to conclude that among the independent variables included in the model, income, education, and benefits of Internet banking positively impact Internet banking usage in urban low-income earners. Hence. Age, gender, device, and obstacles do not significantly impact Internet banking usage. Further, it was concluded that a major proportion of urban poor customers were not familiar with internet and internet usage. A high percentage of urban poor customers answered that their lack of usage of internet banking is due to their lack of education and knowledge of how internet banking works.

POLICY IMPLICATION

The findings of this study have important practical implications for public banks as well as for private banks. Also, Today, along with technological advancement and globalization, the world is trending towards Internet banking. Thus, Sri Lanka needs a lot of Digital knowledge to deal with the world. Therefore, people should be fully and effectively educated about Internet banking. With the digitalization of the world, awareness programs about Internet banking should be organized to educate the people in Sri Lanka. The most challenging aspect of online banking was detected as the lack of user-friendliness in websites. Hence, the banks need to improve the simplicity and operational convenience of their online platforms. Further, the banks should educate the urban poor customers on how to operate Internet banking on the Internet and extend their prompt assistance towards familiarizing customers with engaging in Internet banking activities.. The banks, regulatory bodies, and policymakers should focus on improving urban poor customers' knowledge of Internet banking.

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