

Factors Affecting User Acceptance of Mobile Banking Applications in Sri Lanka

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Abstract: In Sri Lanka, numerous banks are beginning to provide financial services via mobile. However, there is a limited number of studies examining the factors affecting user acceptance of m-banking applications. The purpose of this research is to find the problems in existing m-banking applications in Sri Lanka, gather factors affecting the user acceptance of M- banking applications, and collect suggestions from the users on mobile banking applications in Sri Lanka. The researchers are surveyed by using a google form which includes fifteen questions. The sample size of this research is seventy-five. According to the results of the survey, there are various issues in existing mobile- banking applications such as complex user interface, annoying security processes such as complicated steps to follow once the password is forgotten, application not functioning well, slow, language problems, connection problems, the application is being stuck and issues in taking screenshots. So when building a mobile application the banks should consider these problems to make sure the users can use the mobile banking application accurately and efficiently. It is very important to gather suggestions from users, As stated in the results of the survey, the responders have suggested that when building a mobile- banking application there should be some features such as an understandable and simple interface with simple icons, voice commands, and voice explanation with enabling a way that explains the features of the banking application, using simple language with different language options, personalization, enabling notification facility, user-friendliness, simplicity, and enabling authentic security with simple steps and enabling Chabot. The researcher has concluded that when creating a mobile-banking application the simplicity of the interface, using simple language with different language options, and good security with simple steps to follow are the most important factors.

Keywords: Mobile, Banking, Technology, Application

1. Introduction

New technology has now taken a prominent place in many industries. The banking industry is one of the most needed industries in the world as there are many services offered through banks such as trade services, utility bill payments, safety deposits, loans and advances, international banking services, and convenient banking services. When it comes

to the banking industry information system and information technology plays a key role, because banks need a lot of information and technology to manage the banking process accurately and effectively. With the rapid development of technology, banks provide mobile banking and internet banking services to customers. Although according to the research paper [1] there are only 20.7 million people in Sri Lanka, the number of mobile phones in use is 22.1 million, especially the youth who have used mobile devices very rapidly. Thus Banks developed m- banking services. Further, m – banking has been introduced to the banks to give more effective and efficient service to the customer to do their banking work without visiting the bank physically. The mobile bank application differs from one bank to another in the services, and interface of m- banking and also with the services and with features that they provide. Users have different ideas about different banking applications. So this research is about the user acceptance of the mobile-banking application. There are a lot of banks in Sri Lanka as NSB, People's bank, commercial bank, BOC, Sampath bank, and a lot more. These banks all provide m-banking facilities to the customers. There are a lot of facts that change the user acceptance of m-banking applications. Thus to do this research it is very important to take information from mobile banking application users, from taking feedback from users the researcher can analyze the factors affecting user acceptance of the m-banking application, problems face while using mobile banking application, and gather suggestions from the user to consider when creating a mobile banking application. The finding of this research will help make a good mobile banking application, to take the information the researcher uses a survey with fifteen questions. By identifying how people use m-banking applications, problems in mobile applications, how mobile applications help people's work, and what things that need to be improved in m-banking the banks can use these data and can build a mobile banking application by solving the problems of the exciting application because of this covid-19 people are afraid to come physically to the bank, and the banks also face a lot of risk because of the pandemic situation, mobile banking application is a very good solution for that also. So by taking the details of this research the banks can build a good m-banking application with the feedback of the users.

Objective: Finding the problems in exciting m-banking applications and Gathering factors affecting the user acceptance of M-banking application

2. Literature Review

Perhaps (Ali, Gallivan, and Sangari, 2019) Banks move into capitalization with the new technology and provide good customer service, because of this new technology banks can provide a good service without any problem by eliminating geographical limitations and time limitations. In this research, the researchers have study about the factors that affect the adaptation of m-banking applications. So to take the information the researchers distributed a questionnaire to 247 users of Sampath bank in the Ampara district and 189 were identified as m-banking users so the researcher gather data about how to perceive usefulness, Perceived ease to use, cost, trust, and perceived risk, these factors have an analyst and the R squared value been 0.61 that means 63%. The result of the questionnaire shows that 74% use m-banking applications, 18% of customers are not using an m-banking application and 8% hope to use m-banking in near future. So the researchers have identified that when building an m- banking application it should not only have English, it should also have the Sinhala Language according to that, all people are not good in English, and also the researchers have identified that the connection between banks and mobile services providers should be increased. According to this research, the hypothesis accepts the perceived usefulness Perceived ease to use, cost and trust has a major factor in the adaptation of m- banking applications, and perceived risk is not taken as a major factor for the adaptation of m- banking applications in Ampara district

(Ayoobkhan, 2018) According to this research, it mentions that with the development of technology and mobile devices people used mobile to do their banking work, with the Covid-19 pandemic people prefer to avoid others and prefer to keep their distance from others. This research has been done to find factors affecting the adoption of mobile banking among customers in north Gujarat. The researchers have collected data from reading papers and questionnaires. So the researchers have to find that ease of use, internet connection quality, perceived usefulness, and self-efficiency are the factors that affect the users of north Gujarat to use m-banking. Also, the researchers have identified that during the covid-19 pandemic the usage of m-banking has increased.

(George Karma, Balal Ibrahim and Hafiez Ali Hasaballah, 2014) So the researchers have collected data by consulting fifty rich bankers which have registered in U.S FDIC. The researchers have used the iTunes website to identify information about exiting apps for the banks. The researcher mentioned that the information from these research papers can be used by banks and bank managers to identify user needs. There are some limitations and delimitations in this research as these researchers have only taken data from three years, second one is that iTunes provides customers rating only for the current year and as

a delimitation, the researchers have mentioned that the confined data from the iPhone apps and Apps Store for experiment control purpose. In this research, there are also four hypotheses as; H1: mobile banking applications will have better user ratings as they progress in the future, H2: The number of features in a mobile app will be positively related to better rating, and H3: The number of exiting rating of a mobile app will be related to better ratings and H4: The file size of a mobile app will be related to better ratings. so when it's come to the results, the result of hypothesis one is supported, the result of the second hypothesis is not supported, the third hypothesis result was supported, and finally, the fourth hypothesis result is not supported, and also this research found that there is an improvement in mobile banking application start rating is 2012 and 2018.

(Hanudin, Ricardo and Mohd Zulkifli, 2012) This research is done to find the factor that influences mobile banking adaptation in the Kurunegala district. This research has mentioned that there is no study done by telling them how to design an m-banking application, by considering that gap the researchers have to do this research by taking diffusion of innovation as a baseline theory, so to gather data, the researchers have done a questionnaire by choosing 40 customers from four commercial banks in Kurunegala district. There are four objectives in this research the relationship between perceived usefulness and adoption of mobile banking technology, the relationship between social influences and adoption of mobile banking technology, the relationship between perceived risk and adoption of mobile banking technology, and the relationship between perceived risk and adoption of mobile banking technology. The researchers also have illustrated a framework based on the literature review. So the researcher has found that usefulness, perceived risk, and compatibility have a significant value or a significant impact on adapting m-banking and social influence has no significant impact on adapting m-banking

(Islam and Hossain, 2015) This research has been done to identify factors affecting sustainable intention to use mobile banking services. There are three aims of this research to identify perception factors that affect current mobile banking customers' continued use of technology, explain the self-services dimension that affects customer's behavior intention, and be able to recommend the banking industry. The researcher has collected data from 688 exiting by online questionnaire. So this research used SPSS and AMOS to analyze the data. According to the result the researcher has mentioned that there is a positive relationship between self-service technology qualities, perception, and sustainable intention to use mobile banking applications.

This (Kiri, 2020) research has been done to identify the user acceptance of m-banking in Indonesian. So the researcher

has used the Technology Acceptance Model as an approach. So the researcher has taken 205 participants and collected data from them by giving them a questionnaire concerning two banks, so the result shows that there should be more promotions about the usefulness, security, and risk of mobile - banking in Indonesian banks.

(Naruetharadhol *et al.*, 2021)The main aim of this research is to find the factors that influence customer intention to use a mobile application, so for collecting data they used a web-based survey, and the researcher distributed it among 348 people who used m-banking applications. There were two hypotheses. The study is based on two models as technology Acceptance model and the mobile service quality model and the structural equation model is used to analyze the data. So according to the result, shows that there is a positive effect on perceived ease of use, perceived usefulness, and mobile service quality.

(Puriwat and Tripopsakul, 2017)This research identifies the factors that affect the intention of using m-banking in Malaysia. it used the technology acceptance model to identify the factors. TAM includes perceived credibility, perceived self-efficiency, and normative pressure. The result shows that perceived usefulness, perceived ease of use, perceived credibility, and perceived self-efficiency as string determinates, and normative pressure is a weak determinant when it's come to the user intention of using m-banking applications. Moreover, it has been mentioned that perceived ease of use and behavioral intention has a significant value when it's come to the intention of users to use m-banking.

(Ravichandran *et al.*, 2016)This research was done to study the factors that affect the user acceptance of m-banking applications in Bangladesh. So in this research, demographic, attitudinal, and behavioral characteristics of the users of the mobile-banking application have been examined. The survey was distributed among 292 people in different banking networks. The research has asked about the ease of use, Infrastructure facility, self-control, social influence, perceived risk, perceived usefulness, and customer service. So this study has mentioned that four factors highly influence Bangladesh's infrastructural facilities, self-control, perceived risk, and social influence, and other factors such as ease of use have less influence.

(Yovita and Ari, 2018)This research is identify the factors affecting the mobile banking adaptation of bank users in Sudan. So the researcher has used the Technology Acceptance Model to analyze the data, which are perceived usefulness, perceives trust, perceived ease of use, and perceived risk. So the researchers have collected data from 181 customers in Sudan. The result shows that perceived trust, perceived ease of use, and perceived risk have a strong influence when it's come to adapting m-banking

applications and perceived usefulness has no significant value for adapting m-banking applications.

3. Methodology

Nowadays most people used bank applications to do their banking work. So the researcher surveyed to collect qualitative information about the users. The survey includes fifteen questions. The questions have been created to gather information about the user's ideas on mobile banking applications, problems that the users have faced while using mobile banking applications, services that they used through mobile banking applications, and suggestions of the users. This research aims to get a clear idea of users' acceptance of them-banking applications. The sample size of this research is seventy-five and the researcher has sent the survey through WhatsApp.

4. Results and Discussion

1. Age of the responses

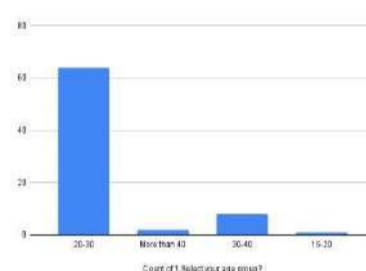


Fig .1.Age Group of the Responders

According to figure 1, the researcher can see that the majority of the respondents are between the ages of 20-30.

2. Are the responses used on their cell phone for financial transactions

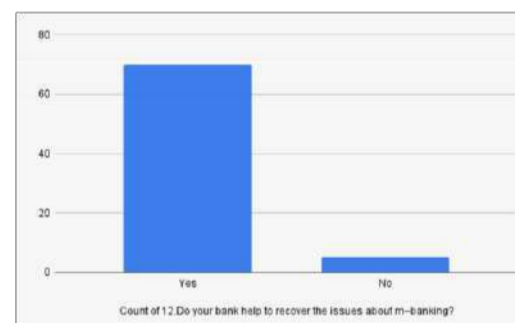


Figure .2.Cell phone usage for financial transaction

The above figure shows that most of the responders have used their cell phones for financial and banking transactions and some responders are not using their cell phones for any financial transactions.

3. Usage of m-banking application

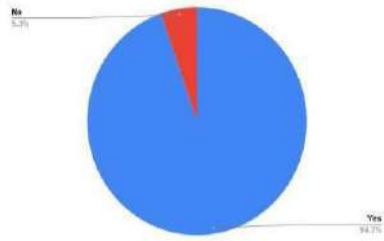


Figure. 3. Usage of m- banking application

Figure 3, shows that 94.7% of responders have used the mobile banking application and 5.3% of the responders are not using M-banking applications, so the researcher can conclude that majority of respondents are using m-banking applications for their banking purposes

4. The way the m-banking users know about them- banking application

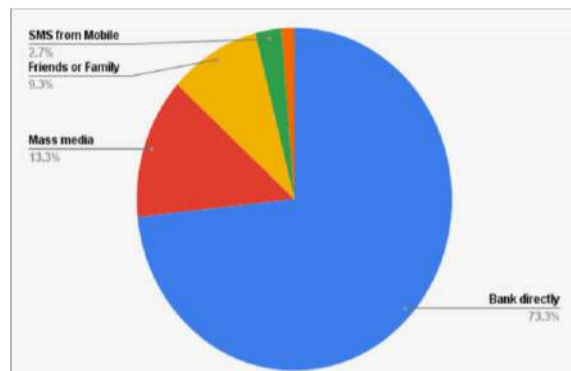


Figure.4.Method of hearing about the m-banking application

According to the answers, it shows that 73.3% of responders have heard from banks directly, 13.3% of users have heard from the mass media, 9.3% of users have heard from friends and family, and 2.7% of users. So the majority of the responses have heard about the application is bank directly. It shows that banks have interest to promote mobile banking applications

5. Are banking encouraged to use them-banking application

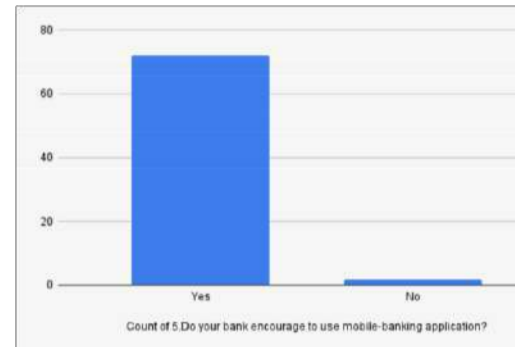


Figure.5.Envolemnt of bank

Figure 5, shows that the majority of users say that banking is encouraged to use mobile banking applications, so banks need to encourage the users to use m-banking, otherwise, users are afraid to use m-banking.

6. Most used service by using m-banking

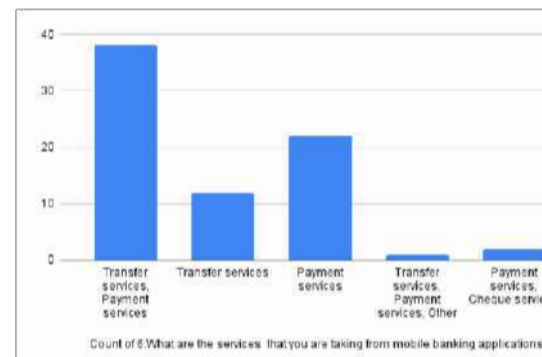


Figure.6.Services of m-banking

This chart shows that transfer services and payments services are the most used services through the mobile banking application.

7. How often the customers use m-banking

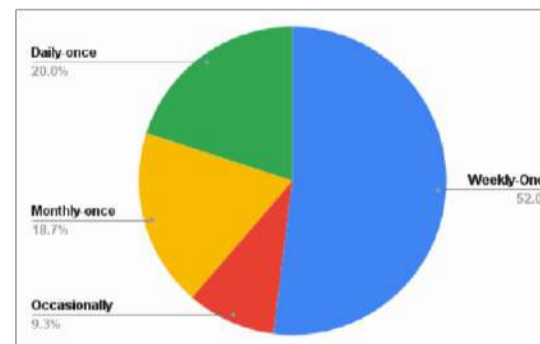


Figure.7.How often the customers use m-banking

According to the above figure, it says that 52% of responders are using the mobile banking application weekly, 20% of responders are using m-banking daily, 18.7% of responders used m-banking applications monthly, and 9.3% of responders are used m-banking applications occasionally. So the majority of the users are using mobile banking applications weekly.

8. Knowledge about the m-banking application

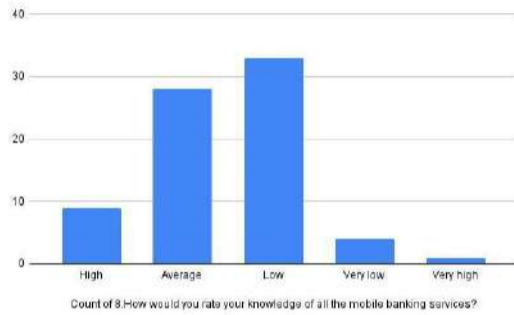


Figure.8..Knowledge about the m-banking application

The above Figure shows that majority of the responders have low knowledge about m-banking. So there should be a proper process to teach the customer about the mobile banking application.

9. Are the m-banking expensive or cheap

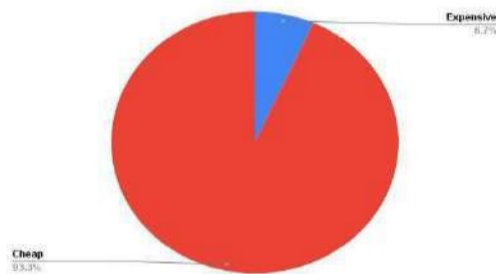


Figure.9.Are m-banking expensive or cheap

So according to the responses, the figure shows that 93.3% of responders are telling that m-banking is cheaper and 6.7%of responders are telling that m-banking is expensive.

10. Have the responses face any problems while using mobile banking

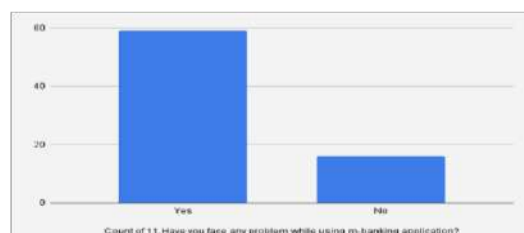


Figure.10.problem using m-banking application

Figure 10, shows that the majority of responders have faced any problem or problems while using the mobile banking application, so these problems should be solved

11. Are the banks helping to recover the problem?

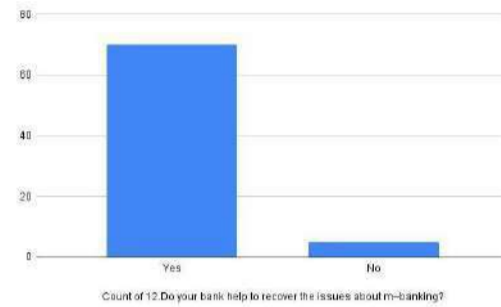


Figure.11.Support from the bank

So according to the results, it can see that most of the responders telling that their bank helped to recover the problems in the m-banking application

12. Problems that users faced when using m-banking applications

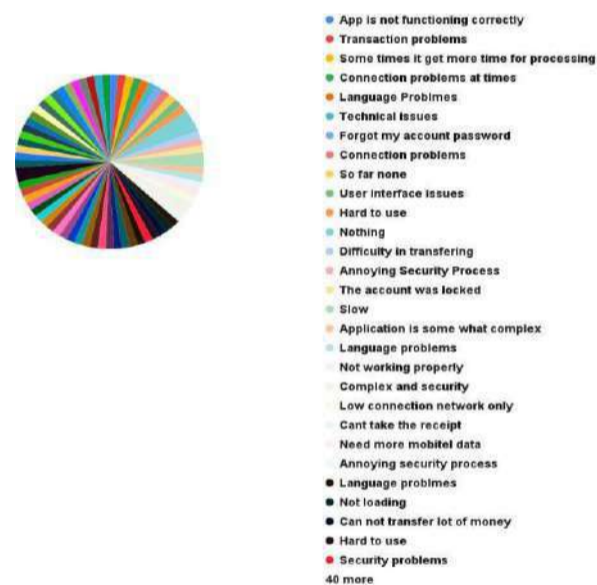


Figure.12.Problems of m-banking applications

According to the above figure, responders have different problems when using m-banking applications. Problems such as annoying security process, the application not functioning well, slow, language problems, network connection problems, hard to use, complex steps to follow once a password is forgotten, cannot take a screenshot of the payment details, the application gets stuck, security problems and cannot understand the interface clearly. The

majority of the responses have the problem of a complex interface.

13. Features that need to apply when creating an m-banking application

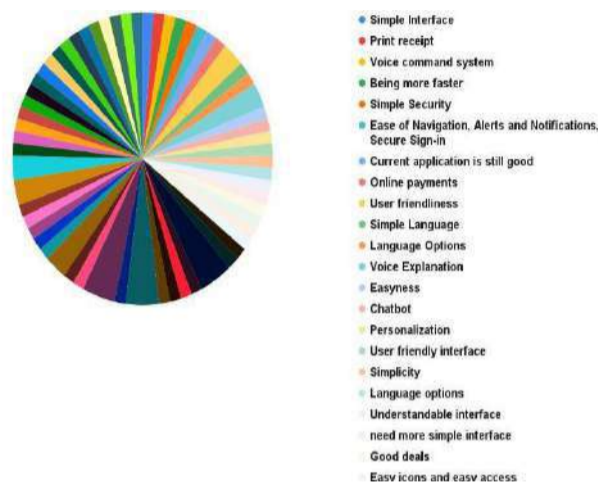


Figure.13. Suggest features for mobile banking application

According to figure 13, There are so many suggestions from responders to consider when creating m-banking applications such as: putting an understandable interface, enabling voice explanation, enabling language options, personalization, putting simple process, enabling voice command, providing transactions via other banking accounts free, using simple words in the application, using simple language in the application, enabling online fund transfers, user-friendliness, simplicity, need a more simple interface and good security are the responders' suggestions when creating an m-banking application. The majority of the responses indicate simple interface and language options as features needed for adding to mobile banking applications

14. Prefer the method to do banking work

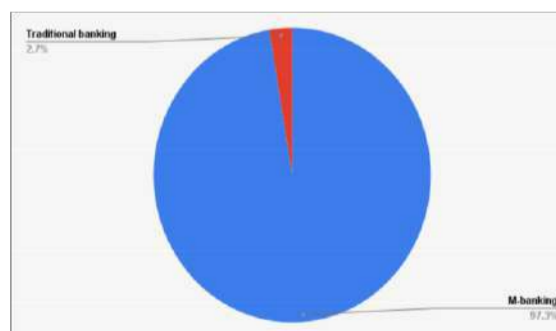


Figure.14. Preference for traditional banking and m-banking

The figure shows that 97.3% of users are telling that they prefer m-banking and 2.7% of users are telling that they prefer traditional banking, according that the majority prefer to use m-banking applications and very less amount of responders prefer traditional banking.

15. Problems occur when using traditional banking

According to the responders, traditional banking is wasting time, having to travel long distances, a large number of forms to fill, slow, need more paperwork and there are crowded the bank. The majority of responders mention that traditional banking is time-wasting.

The answers to these fifteen questions have supplied a lot of information about the mobile banking application and its users

5. Conclusion

The research objectives were to find the problems in exciting m-banking applications, Gather factors affecting the user acceptance of M-banking applications, and gather user suggestions for developing an m-banking application. Most of the results are from the age group of 20-30. The majority of the responses get known about m-banking applications from the bank directly, used m-banking weekly and their knowledge of m-banking applications is very low. According to the survey result, the responders have faced some problems when using m-banking applications such as annoying security process, the application not functioning well, slow, language problems, network connection problems, hard to use, complex steps to follow once the password is forgotten, application getting stuck, cannot take a screenshot of the payments and cannot understand the interface clearly. So these problems should be solved otherwise the users may feel uncomfortable using mobile banking applications. When building a mobile application responders suggest some features such as putting an understandable interface to the mobile banking application, enabling the voice command method, and enabling the voice explanation method to the application, so the user can easily process the banking processes and there should be a language option in the mobile banking application, So when building a mobile-banking application the organization should consider these factors as putting a simple interface with simple words so the user can understand the application well. Having a language selecting option is also very important when creating an m-banking application because in Sri Lanka there are a lot of people who only know the Sinhala and Tamil languages and who cannot understand English properly, it will be more efficient if the mobile bank application includes different languages, personalization is also very important when creating an m-banking application, enabling all the services that provide physically also value the mobile-banking applications more, user-friendliness and good security also take an important place when creating an m-banking application according to the responders. Transfer and payment

services are the most used service of the responders so when building m-banking applications these services should be improved. Factors that affect user acceptance are security, ease of use, language differentiation, and other services such as loan facilities. When creating an m-banking application the banks should concern about the above problems and also consider the suggestion of users that will help the users and banks to provide a good service to the customers accurately and efficiently.

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