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CUSTOMER SATISFACTION ON DIGITAL BANKING DURING THE COVID-19 PANDEMIC: A CASE STUDY OF BANKING CUSTOMERS IN SRI LANKA

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Abstract

The aim of the study is to focus on the impact of digital banking on customer satisfaction during Covid-19 pandemic. Further it investigates the factors that need to be improved in digital banking services during the Covid-19 pandemic and future. The research is based on consumer perspectives. Data is collected from banking customers through a quantitative approach and a self-designed questionnaire to evaluate the customer satisfaction on digital banking during this Covid-19 pandemic. The data was collected from banking customers in the Colombo district to know their satisfaction and a sample is around 100 bank customers. The collected data mainly targeted four factors namely performance expectancy, effort expectancy, social influence, and facilitating conditions. Based on the analysis results, the usage of digital banking is highly increased during the Covid-19 period and customers are highly satisfied with using digital banking. It becomes a very important part of their banking activities. Some difficulties are understood like technological problems, less user-friendliness, difficulties faced by novice users when learning digital banking applications and websites, use of English in digital banking applications and websites. According to the result, customers like to continue the use of digital banking in the future after the Covid-19 period due to it converting their banking activities to easy, quick, and time-saving tasks.

Keywords: Banking Customer, Covid-19 Pandemic, Customer Satisfaction, Digital Banking

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1. INTRODUCTION

The outbreak of Covid-19 has plagued the world, including Sri Lanka, with a pandemic affecting social, political, education, and economic sectors. Despite the failure of world leaders, various strategies are being pursued to prevent the transmission of this new type of Coronavirus. As of September 2020, more than 18 million corona patients have been confirmed in 215 countries according to the Worldometer.info at https://www.worldometers.info/coronavirus/. The pandemic creates uncertainty and upsets the global political, geopolitical, socio-economic, and financial chain (Roubini, 2020).

All economies have collapsed during this pandemic. In a study Fouejieu et al., (2020) provide information on a number of emerging industries in the areas of e-commerce and information technology in the event of a pandemic. Technology has a great influence on aiding human activities specially in physical distance and lockdown situations. Decode describes that the financial service industry is in a recession, but this is different from digital banking. And also describe that digital banking services are quick and efficient and generally cheaper than classic banking services.

Increasing digital Facilities inclusion facilitates the use of government-aided measures to address this crisis (Fouejieu et al., 2020). They describe that in order to improve service performance and advanced innovations in an unstable environment, banking operations risk management should be the correct reason. Since the inception of the branchless banking system in 2013, it has been proven that digital banking services have been provided to banks, and there are no banking people (Panekenan et al., 2019).

Due to the Covid-19 pandemic, digital banking is the key to providing solutions in the "New Normal" business environment (Thaker et al., 2019). This is especially true established as a collaboration between banks and digital technology and banks increase banking profits through digital technology, improve efficiency and customer interaction (Wang et al., 2020).

The existing research targeted customer satisfaction on digital banking in Sri Lanka, but most of the research were conducted before the covid-19 pandemic. But in that period digital banking is not popular among most customers. In (Chou, 2019) explain that companies that are not "digital ready" will not be able to translate in the new digital age, and will face a number of barriers that could prevent them from reaping the benefits of the process. In the case of governments, this level of digital transformation to drive the bank's efficiency will be driven by various local and global factors such as increasing transparency, increasing bank customer satisfaction and trust, balancing costs, improving ratings, and attracting new investors. However, digital technology requires endless updates to adapt to the changing behavior of bank customers as a strategy, making it a very lengthy and energy-consuming process. The covid-19 crisis can be seen not only as a disruptive period of instability and danger but also as a period for the rapid use of digital technology (Karabag, 2020). The current pandemic of covid-19 provides opportunities for that management expert to coordinate research attempts and give them a dynamic understanding to assist the organization to resolve the situation. Increased uncertainty due to Covid-19 the plague is not just about the economy, bank customers' management also affects performance. Therefore, there was a very big change in the digital banking world with the covid-19 pandemic in Sri Lanka, and the existing idea regarding the digital banking of customers as well as banking officers were changed. Because of that, it has become important to understand the current customer satisfaction of the banking customers. Further, Sri Lanka as a developing country it is important to check the feasibility of using digital banking in the banking sector. The Importance of filling the research gap motivated us to conduct this research.

1.1 Research Problem

The spread of Covid-19 has drastically changed the lives of every person and has infected people in many countries. Most countries have taken various steps to control the Covid-19 pandemic as well as move back peoples' life to normal. Because of that, all activities are resumed in different ways in Sri Lanka as well.

One of the main areas which affected the lockdown period is the banking industry. Customers could not visit banks due to the lockdown and also the public places were becoming dangerous to visit due to the uncontrolled virus spread all over the country. The key to the success of finding solutions to banking environmental problems created by Covid-19 is to maintain digital banking technology between banks and customers. Digital banking has emerged as an important method of banking transactions through the Internet and mobile banking among most customers. The usage of digital banking has increased highly and customers also identified its importance and effectiveness. That highlights that digital banking can continue after the pandemic period as well. Because of that, it becomes very important to focus on the impact of digital banking on customer satisfaction during Covid-19 to evaluate the usage of digital banking. Understanding the customers' positive and negative ideas is important to continue this digital banking process in the future. To propose relevant solutions, identifying their problems have become important. Based on that, we have understood the importance of finding customer satisfaction in digital banking and proposed this approach to overcome the above problems.

It has been identified the following research questions based on the research problem.

RQ1: How is the usage of digital banking before and during the Covid-19 pandemic?

RQ2: What are the problems of digital banking that banking customers are facing?

RQ3: How is the customer satisfaction of digital banking during the Covid-19 pandemic?

RQ4: What are the solutions for problems that digital banking customers are facing?

RQ5: What is the customer preference for using digital banking in the future?

The main objective of this study is to investigate the customer satisfaction of digital banking during the Covid-19 pandemic. This research examines how the banking system solves the problems of the customers and how day-to-day banking activities manage in collaboration with digital banking during the covid-19 pandemic. Specific objectives are,

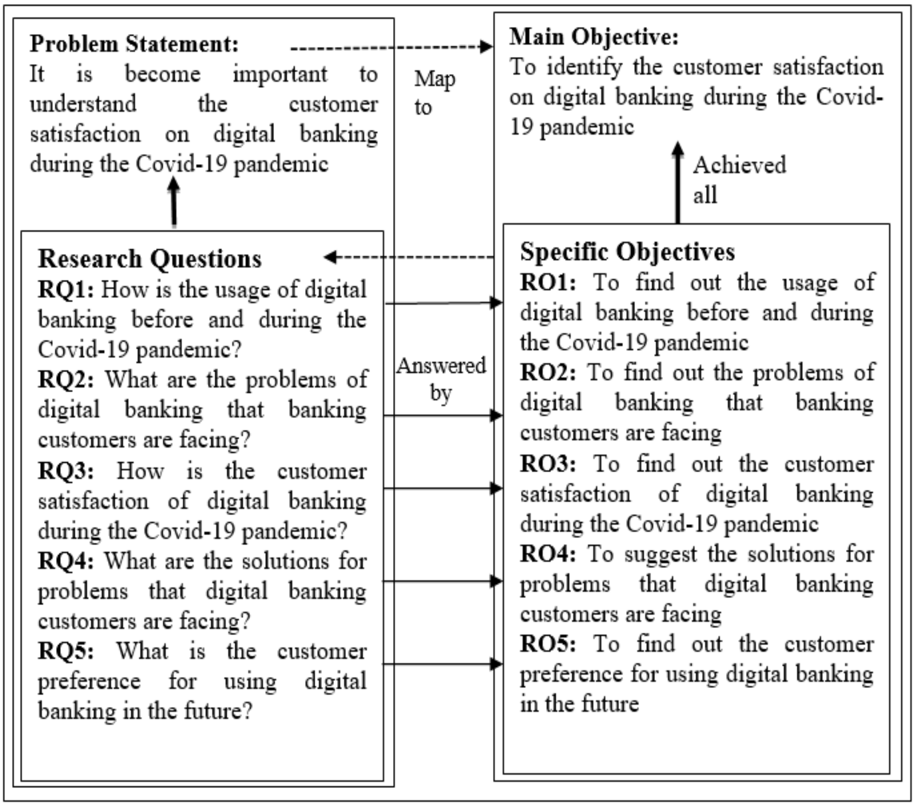

Figure 1. Mapping of research questions to research objectives

RO1: To find out the usage of digital banking before and during the Covid-19 pandemic

RO2: To find out the problems of digital banking that banking customers are facing

RO3: To find out the customer satisfaction of digital banking during the Covid-19 pandemic

RO4: To suggest the solutions for problems that digital banking customers are facing

RO5: To find out the customer preference for using digital banking in the future

Figure 1 illustrates the mapping of research questions to research objectives which support achieving the main objective of the research by answering research questions. In the paper, the second section includes the literature review that discusses customer satisfaction on digital banking. The third section discusses the conceptual framework. Forth section discusses the methodology and the fifth section is results and decision and finally, the conclusion and future work is presented in the sixth section.

2. LITERATURE REVIEW

2.1 Theoretical Background of Study

This part provides theoretical protection of the dependent variable and independent variable of this study and that helps to identify the research gap. It also reviews empirical and methodological literature. Broadly reviewing the empirical and methodological literature helps to build the conceptual research model and study methods of this study. There are no similar studies in the literature on the role of Information and Communication Technology (ICT) on Human Resource Management (HRM) in the banking sector during the Covid-19 pandemic. But the previous studies help to conduct this study.

2.1.1 Digital Banking

Digital banking is to convert all traditional banking activities to the digital environment. It includes innovations in financial services for consumers' commercial things such as mobile, artificial intelligence and payment strategies, block chain, distribution channels, and technology. Digital banking is operational based on technological exchange of information banks and customers. This activity is done through digital devices connected through the Internet in the environment.

Customers do not need to come to bank branches to make transactions on their hands, banking officers do not need to meet customers for transactions. According to (Venkatesh, 2000), the purpose of using technology is to make consumers aware of their ability to use services. Consumer motivation to use this service will be influenced by a number of motivating factors. Here the purpose of using technology is to make consumers aware of their ability to use services. Consumer motivation to use this service will be influenced by a number of motivating factors.

Confidence, self-efficiency, and habits like important behavioral motivation are predictable and habit and behavioral motivation can be used to explain adoption to the Internet. They highlighted the need to improve digital banking based on innovations. In (Sharif & Raza, 2017) discusses the skills used in digital banking, the need of changing the Internet banking system, digital banking modern interface to attract more customers.

One of the popular theories under digital banking is the Technology Acceptance Model (TAM) (TAM; Davis, 1989). TAM is one of the most significant models of technology acceptance. It explained the factors of computer technology acceptance and explain the user behaviors regarding this change. Using two primary factors it influences an individual's aim to use new technology such as understanding the ease of use and usefulness.

2.1.2 Banking Sector

Technology plays a very important role in today's competitive world and if we talk about the banking sector, there is a good relationship between technology and banking sector. Several factors contribute to customer satisfaction in banks, such as product quality, employee aspects, customer convenience, bank contacts, transaction costs, and customer communication.

2.1.3 Bank Customers

According to (Karapete, 2011), customers of banks with a positive understanding of service quality were highly satisfied. Customer satisfaction interferes with the impact of service quality on reliability. As discussed in (Kaura, 2013), dimensions of service quality are the behavior of the employees, the technology, and the information technology. The dimension of the service facility is the ease of decision making, accessibility, transaction facility, benefit facility, and post-return facility. Emotions play an important role in building a bank's relationship with the customer. These feelings develop during the bank's communication with the client and do not arise from this customer's relational considerations and indicate a continued positive dependence on the customer's relationship. According to (Terpstra & Verbeeten, 2014) customers are loyal and willing to buy a company's service at a higher price. Current bank customer satisfaction levels show positive results not within a year but as acquisitions of additional products or services one year later.

2.1.4 Customer Satisfaction

Companies today face stiff competition as they move from product and sales vision to marketing vision, giving a company a better chance of overcoming competition. Bank customer satisfaction was explained by (Oliver, 1981) as a short summary of the psychological state associated with the consumer's preconceived notions of feelings around despair and the consumer experience. Bank customer satisfaction is the emotional response of customers to what they expect and receive in relation to the overall customer attitude of a particular need, purpose, or desire. The nature of the specific satisfaction of the transaction and changes it from attitude, emotional response of the consumer orientation for a product.

2.1.5 Covid-19 Pandemic

With the current pandemic of Covid-19, physical distance and face masks are mandatory for public and private places. Governments around the world have issued policies and guidelines to implement physical distance to flatten the pandemic curve. Understand how the terrible environment of the Covid-19 pandemic forced customers to interact with digital banking as a social practice, therefore customers' challenges using digital banking. The global pandemic caused significant changes in consumer behavior affecting the services of retail stores, restaurants, suppliers, and service providers worldwide. Also, consumer behavior, which was the root cause of the fear of infection, was shifted to an abnormal pattern of behavior, and there is no evidence that the alarming climate of Covid-19 increased social banking in digital banking, specially developing and developed countries.

2.2 Empirical Background of the Study

The empirical literature section included results related to the variable from other studies similar or related to this study. That also mentions the problem to lead those studies. Provides an extensive exploration of the actual evidence and experience of the impact of digital banking on customer satisfaction during covid-19. This study is based on bank customers in the Colombo district. This section on digital banking identifies the performance expectancy, effort expectancy, social influence, and facilitating condition factors impact of customer satisfaction during the Covid-19 pandemic.

2.2.1 Performance Expectancy

Factor Performance Expectancy (PE) is a very important variable for using new information technology. PE can only affect if the product confirms his or her expectations. Therefore, it enhances the user's idea of the continued use of PE in a technological product, therefore, it often affects the behavioral motivation of the user to use digital banking technology (Fuksa, 2013). Researches extend that person believes PE benefit of using any digital technology will help to improve his or her performance. As well as research looked at the benefits of the adoption models they studied (Jambulingam, 2013). Banking PE came about as a result of a number of factors of the previous models, including factors derived from the technology acceptance model, external motivations derived from their functional models, and various jobs in the computer utility model, with relative disadvantages and general advantages over innovation diffusion theory (Ghalandari, 2012).

2.2.2 Effort Expectancy

According to the (Venkatesh et al., 2012), In terms of effort expectation is a construction that expresses the convenience that customers can expect when using a product and different service and different new technology. The new user-friendly application or new technology uses it then less effort and less understanding.

Exploring the forerunners of digital banking, effort perspective has proven to have a good impact on the behavioral intent of using digital banking.

2.2.3 Social Influence

With the advancement of technology, people now have different opinions and advice, and such information from social groups is shaped by their own beliefs. Here the primacy of emotions, the belief in one's own appraisal, the beliefs about the ability of others, and the tendency of social groups to adapt to the use of digital banking under social influence play a main role.

In real life, vision directly or completely affects cultural norms, relationships in media, and social networks highly interdependent. The combined effects of these effects are known as social impact. In other words, social influence refers to people who act according to the beliefs and expectations of others. Social impact can be direct or indirect. And social influence is the result of one person directly influencing another's opinion, while indirect influence is a subtle psychological process that affects one's vision and behavior based on the ability to obtain information about the action of others (Garcia et. al., 2014). Researches pointed out that 'social influence' is definitely related to utility value, social value, and hedonic value. And found that an intermediate effect on social value social impact and motivation to use, but had no similar effect on utility value (Yen, 2013).

2.2.4 Facilitating Condition

According to (Venkatesh & Davis, 2000), facilitation terms are one of the most important aspects of digital banking. Physical information technology assets, operating systems, and firmware, including data on organizational structure, applications, processes, and technological infrastructure, significantly affect the acceptance of innovative digital advances by bank customers with security related to infrastructure. In (Venkatesh & Davis, 2000) said that facilitation terms are the extent to which an individual believes that there is an institutional and technical infrastructure to support the use of the system. Research into the factors that influence the adoption of a particular technology has shown that the adoption of modern technology and the facilitation of user behavior can have a significant impact.

2.3 Methodological Literature

This section discusses the methodology used by previous scholars. If research plans focus on new methods in the field of research and descriptive research methods, and procedures are used. The aim is to get an idea of the best methods that can be used for this study by conducting a previous research method. It also includes a circle of measurements, the main variable measurement method used by scholars. In (Nayanajith et. al., 2019), examine the importance of facilitating conditions towards intentions and activities of digital banking adoption of Sri Lankan commercial banks. This research followed deductive methodology and quantitative methods. They use a random sampling method and the sample size is 268. The researcher tested the effectiveness of digital banking on customer satisfaction during the Covid-19 pandemic.

In (Nachit & Belhcen, 2020), examine the digital transformation in times of Covid-19 pandemic. This research uses a qualitative method to lead this research. The research is based on private-sector workers who use digital banking. They used a random sampling method and the sample size was N = 300 and data was collected and distributed as a questionnaire.

The researcher emphasized digital transformation in times of Covid-19 pandemic. Researchers discuss the impact of social media in the digital banking transition during the Covid-19 pandemic (Naeem & Ozuem, 2021). This research used multiple qualitative research methods. They used Gibbs reflection cycle and semi-structured interviews with users of digital banking. They especially focused on interviews with middle management of the private and public bank sector. This research focused on a subjective epistemology, relativist ontology. That sample size is N = 578.

2.4 Gaps in Literature

A review of the theoretical, empirical, and methodological literature above has shown that there are no studies similar to this one. With regard to the customers' satisfaction with digital banking, a pre-study with some literature is available worldwide before the Covid-19 period. But, there was a big change in the digital banking environment due to the pandemic situation. To reduce this research gap, this research is aim to find the customers' satisfaction on digital banking during the Covid-19 pandemic in Sri Lanka. This study is an explanation of the preferences of bank customers, digital banking, during the Covid-19 pandemic. This study was conducted on Sri Lankan bank customers based in Colombo district.

2.5 Conceptual Framework

The following framework identifies the independent variable and the dependent variable, with respect to the many accepted definitions and identified relationships, according to the researcher's extensive literature review.

The conceptual model shown in Figure 2, the dependent variable would be customer's satisfaction during Covid-19 pandemic and the independent variable is digital banking. It is divided in four parts as shown in Table 1 Performance Expectancy (PE), Effort Expectancy (EE), Social Condition (SC) and Facilitating Condition (FC).

Table 1. Independent Variables and Dimensions

Independent Variable	Dimensions (Variable that effect to main variable)
Performance Expectancy Factors (PE)	- Use digital banking during covid-19 (PE1) - Use digital banking before the covid-19 (PE2) - Digital banking enables my bank account anytime (PE3) - Digital banking useful for my day-to-day life (PE4)
Effort Expectancy (EE)	- Digital banking helps me done faster (EE1) - Easy to learn how operate digital banking (EE2) - Digital banking simple and easy to understand (EE3)
Social Condition (SC)	- Flexible to use digital banking (SC1) - My friends also use digital banking (SC2)
Facilitating Condition (FC)	- My technical knowledge enough to learn digital banking (FC1) - Have the necessary resources to use digital banking (FC2) - My English knowledge enough to learn digital banking (FC3) - Have you face trouble in using digital banking (FC4)

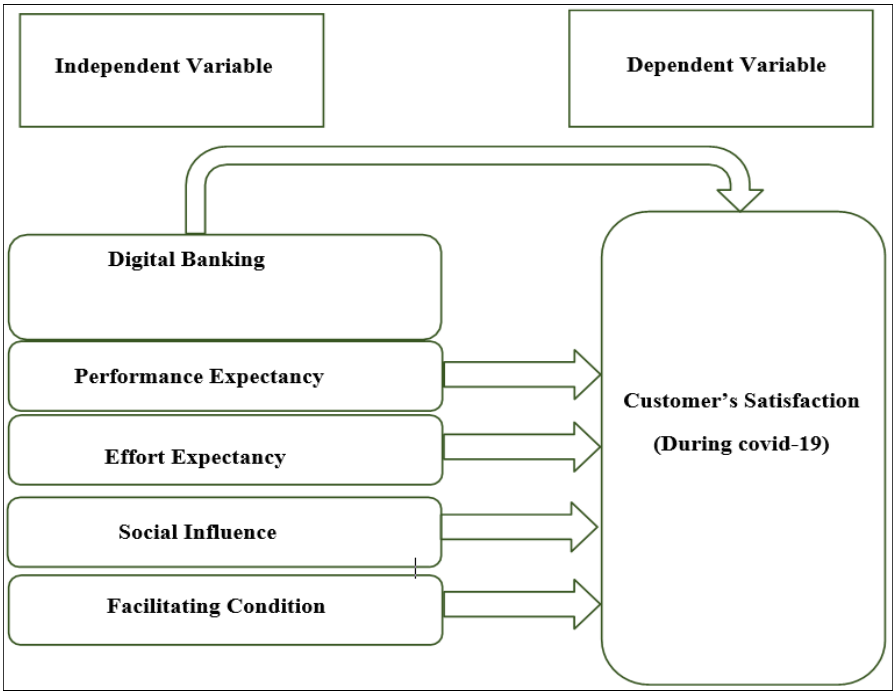

Figure 2. Conceptual Framework

2.5.1 Hypothesis Development

The researcher has attempted to establish a strong relationship between independent and dependent variable.

H0 = Null Hypothesis

H1 = Alternative Hypothesis

H1 - There is a relationship between performance expectancy factors and customer satisfaction during the Covid-19 pandemic:

Performance Expectancy is defined as the number of people who believe that technology will help them benefit from their work. In (Venkatesh et al., 2003) explain the need to point out the importance of using technology to improve performance. Literature reviews show that Performance Expectancy is one of the most important variables influencing the behavioral intent of information systems to adopt and use digital banking. This is expected to increase the desire of the customers to use the digital banking service as the functionality of the customer is better based on the wishes of the customers.

H2 - There is a relationship between effort expectancy factors and customer satisfaction during the Covid-19 pandemic:

Effort expectancy is a variable that explains how easy it is for individuals to implement technology. In a study Venkatesh et.al., (2003) shows that perceived convenience significantly affects the behavioral motivation for the usage of technology. If it is easier to use banking, the customer participation rate will be higher. If the use of this new technology makes the life of the customer simpler and easier, it will increase the idea of digital banking and the more digital banking process become easier and increase the motivation to use this technology.

H3 - There is a relationship between social influence factors and customer satisfaction during the Covid-19 pandemic:

In (Venkatesh et al 2012), social impact is defined in digital banking by the extent to which individuals believe that they think important people should use technology. Digital banking society shows that the adoption of technology depends on the individual's beliefs and attitudes.

H4 - There is a relationship between facilitating condition factors and customer satisfaction during the Covid-19 pandemic:

The context of digital banking requires support or guidance for people with usage skills, facility details. As long as it is available to customers, the willingness to use and technology usage is high.

3. METHODOLOGY

3.1 Scope of the Study

To achieve tests, the hypothesis the study used primary data was collected through the questionnaire. The population of this study is banking customers in the Colombo district. The research used the deductive research approach of hypothesis and construct were developed based on the literature. Which is to be used in this study, is quantitative research and use for the study is positivism. This study will also serve as an explanatory to analyze the customer satisfaction during the Covid-19.

3.2 Data Collection

The survey was conducted online using a Google form and the questionnaire was developed based on the conceptual framework. Google form was shared among banking customers in Sri Lanka using the convenience sampling method. From the collected data set some unnecessary values are removed and missing values are filled. Then, 98 customers are randomly selected as the sample, from the entire bank customers. Through the questionnaire, the researcher will be able to collect performance expectancy data, effort expectancy data, social influence data, facilitating condition data. A five-point Likert scale (strongly disagree, disagree, neutral, agree, strongly agree) and dichotomous scale (yes/no) were used to evaluate the independent variable on the dependent variable. The questionnaire comprises two sections aimed at measuring the variables of the study.

Part A: This section consists of the question related to the personal information of the respondents.

Part B: This section consists of the question related to measuring the factors affecting the digital banking satisfaction of the respondents.

3.3 Data Analysis

Regression analysis is carried out to measure the level of impact of one variable on another. That is the place when one variable hypothesis controls the dependent variable. Multiple regression analysis tools are developed to reorganize the effect of numerous variables on the dependent variable and independent variable. The collected data was analyzed through the Statistical Package of Social Science (SPSS) software to determine the extent to which impact of digital banking on customer satisfaction during the Covid-19. The analysis data will be presented using text, tabulated, and graphical presentations.

4. RESULTS AND DECISION

The study guides identify the impact of digital banking on customer satisfaction during the Covid-19. Special reference of banking customers of Colombo district. Primary data, quantitative data for the study gathered from primary data sources have been analyzed. The sample characteristics of collected information are illustrated graphically.

5.1 Descriptive Statistics

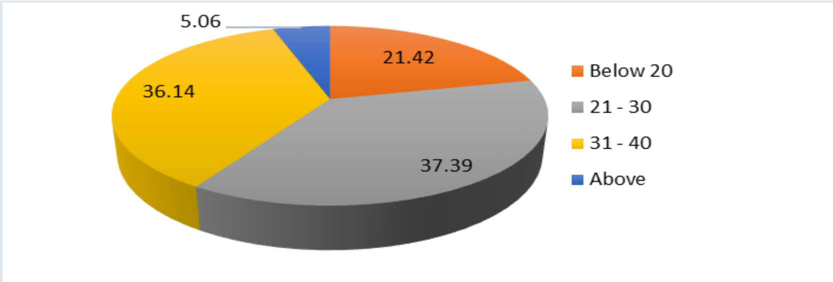

Figure 3: Age Distribution

Figure 3 shows the age distribution of the respondents. Age Below 20 customers, 21.21%. Age between 21 – 31, 37.37%, Age between 31 – 40, 36.36%, Age and Above 40, 5.06% were responded.

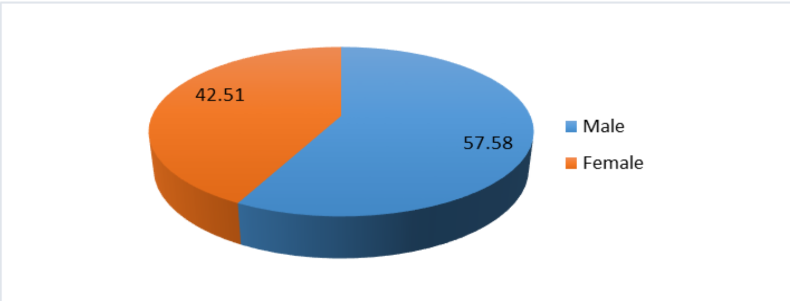

Figure 4: Gender Distribution

Figure 4 shows the gender distribution of the respondents. The majority 57.58% male and 42.42% female responded to the survey.

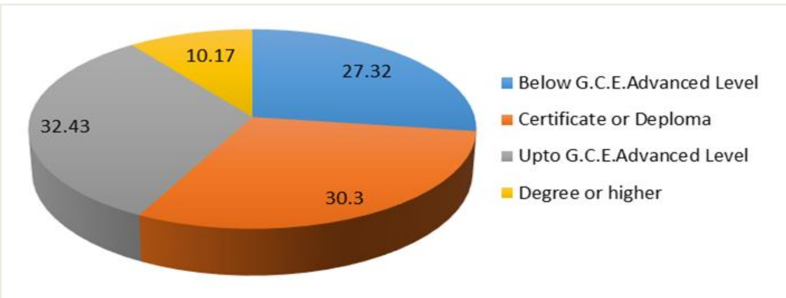

Figure 5: Education Level

Figure 5 shows the education level distribution of the respondents. The majority of 32.32% were G.C.E. Advanced level. 30.30% were Certificate or Diploma level. And 27.27%, below G.C.E. Advanced level. 10.11% was Degree or any other higher qualification.

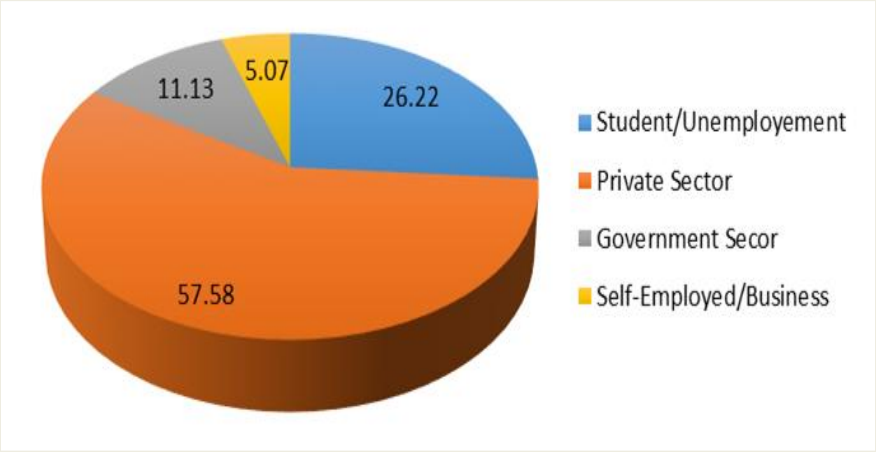

Figure 6: Employment Distribution

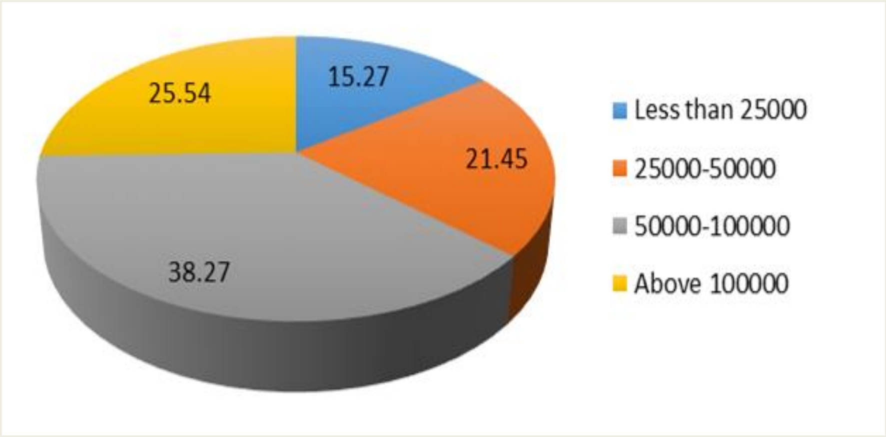

Figure 7: Monthly Income Distribution

Figure 6 explains the employment level of the respondents and Figure 7 explains the monthly income distribution of the respondents.

Descriptive statistics were explained as follows: Table 2 Performance Expectancy Factors (PE), Table 3 Effort Expectancy (EE), Table 4 Social Condition (SC), and Table 5 Facilitating Condition (FC).

Table 2: Descriptive Statistics - Performance Expectancy Factors (PE)

PE Factor	N	Minimum	Maximum	Mean	Std. Deviation
PE1	99	1	2	1.21	.411
PE2	99	1	2	1.22	.418
PE3	99	1	5	3.78	1.274
PE4	99	3	5	3.93	.895
Valid N (listwise)	99				

Table 3: Descriptive Statistics - Effort Expectancy Factors (EE)

EE Factor	N	Minimum	Maximum	Mean	Std. Deviation
EE1	99	1	5	3.89	1.068
EE2	99	1	5	4.00	1.020
EE3	99	1	5	3.95	.994
Valid N (listwise)	99				

Table 4: Descriptive Statistics - Social Condition Factors (SC)

SC Factor	N	Minimum	Maximum	Mean	Std. Deviation
SC1	99	1	5	4.00	1.020
SC2	99	1	2	1.11	.316
Valid N (listwise)	99				

Table 5: Descriptive Statistics - Facilitating Condition Factors (FC)

FC Factor	N	Minimum	Maximum	Mean	Std. Deviation
FC1	99	1	5	4.16	.987
FC2	99	1	2	1.05	.220
FC3	99	1	2	1.05	.220
Valid N (listwise)	99				

5.2 Correlation between Independent Variables

Factor analysis was used to analyze data and it was used to find a correlation between independent variables.

Factor 1 - Performance expectancy factors
Factor 2 – Effort expectancy factors
Factor 3 – Social condition factors
Factor 4 – Facilitating condition factors

The following Tables 6, Tables 7, Tables 8, and Tables 9 explain the core relation between independent variables of factors such as performance expectancy factors, effort expectancy factors, social condition factors, and facilitating condition factors respectively. Based on the tables all the independent variables are highly correlated. Table 10 explains the summary of all correlations.

Table 6. Correlations - Performance Expectancy Factors (PE)

Spearman's rho		PE1	PE2	PE3	PE4
PE1	Correlation Coefficient	1.000	.277**	.641	-.548**
	Sig. (2-tailed)	.	.005	.000	.000
	N	99	99	99	99
PE2	Correlation Coefficient	.277**	1.000	-.457**	-.564**
	Sig. (2-tailed)	.005	.	.000	.000
	N	99	99	99	99
PE3	Correlation Coefficient	.641**	-.457**	1.000	.950**
	Sig. (2-tailed)	.000	.000	.	.000
	N	99	99	99	99
PE4	Correlation Coefficient	-.548**	-.564**	.950**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	99	99	99	99

Table 7: Correlations - Effort Expectancy Factors (EE)

Spearman's rho		EE1	EE2	EE3
EE1	Correlation Coefficient	1.000	.870**	.901**
	Sig. (2-tailed)	.	.000	.000
	N	99	99	99
EE2	Correlation Coefficient	.870**	1.000	.957**
	Sig. (2-tailed)	.000	.	.000
	N	99	99	99
EE3	Correlation Coefficient	.901**	.957**	1.000
	Sig. (2-tailed)	.000	.000	.
	N	99	99	99

Table 8: Correlations - Social Condition Factors (SC)

Spearman's rho		SC1	SC2
SC1	Correlation Coefficient	1.000	-.098
	Sig. (2-tailed)	.	.336
	N	99	99
SC2	Correlation Coefficient	-.098	1.000
	Sig. (2-tailed)	.336	.
	N	99	99

Table 9: Correlations - Facilitating Condition Factors (FC)

Spearman's rho		FC1	FC2	FC3
FC1	Correlation Coefficient	1.000	-.146	.059
	Sig. (2-tailed)	.	.149	.564
	N	99	99	99
FC2	Correlation Coefficient	-.146	1.000	-.053
	Sig. (2-tailed)	.149	.	.601
	N	99	99	99
FC3	Correlation Coefficient	.059	-.053	1.000
	Sig. (2-tailed)	.564	.601	.
	N	99	99	99

Table 10: Correlations based on Four Factors

Spearman's rho		REGR factor score 1 for analysis 1	analysis 2	analysis 3	analysis 4
REGR factor score 1 for analysis 1	Correlation Coefficient	1.000	.667**	.538**	.224*
	Sig. (2-tailed)	.	.000	.000	.026
	N	99	99	99	99
REGR factor score 1 for analysis 2	Correlation Coefficient	.667**	1.000	.834**	.655**
	Sig. (2-tailed)	.000	.	.000	.000
	N	99	99	99	99
REGR factor score 1 for analysis 3	Correlation Coefficient	.538**	.834**	1.000	.562**
	Sig. (2-tailed)	.000	.000	.	.000
	N	99	99	99	99
REGR factor score 1 for analysis 4	Correlation Coefficient	.224*	.655**	.562**	1.000
	Sig. (2-tailed)	.026	.000	.000	.
	N	99	99	99	99

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

5.3 Regression Analysis and Testing Hypothesis

Table 11 explains the model summary, Table 12 explains the coefficients, and Table 13 explains the Analysis of Variance (ANOVA) results. According to that, the constant value 3.033 is the intercept and other independent variables creating a model. There are three significant variables including intercept and one insignificant variable in the regression because this variable is less than 0.05 level.

Considering the overall model according to the ANOVA table, it shows the overall model is significant with the dependent variable. According to the following tables, the R square value of 0.772 means that 77% of the variation in job satisfaction has been explained by the model. The remaining 23% is explained by another factor that is not included in the model. The Regression equation is stated in equation 1.

Customer's satisfaction = 3.033 + 0.282 (Performance Expectancy factors) + 0.210 (Effort Expectancy factors) + 0.421 (Social Influence factors) + -0.198 (Facilitating Condition) (1)

Table 11: Model Summary

Mode l	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763[a]	.772	.761	0.35045

Table 12: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.033	.155		22.546	.000
	REGR factor score 1 for analysis 1	.282	.178	-.150	1.834.	.006
	REGR factor score 1 for analysis 2	.210	.161	-.097	-.814	.034
	REGR factor score 1 for analysis 3	.400	.170	.309	2.859	.006
	REGR factor score 1 for analysis 4	-.198	.382	-.066	-.752	.330

Table 12. Coefficients

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.9	4	.492	2.396	.056[b]
	Residual	19.323	94	.206		
	Total	21.293	98			

There is a positive relationship between performance expectancy factors and customer satisfaction during the Covid-19 pandemic in the Colombo district. Further, it was identified that there is an impact of digital banking on customer satisfaction during the Covid-19 pandemic. (P<, b=). There is a positive relationship between effort expectancy factors and customer satisfaction during the Covid-19 pandemic in the Colombo district. Further, it was identified that there is an impact of digital banking on customer satisfaction during the Covid-19 pandemic. (P<, b=).

There is a positive relationship between social influence factors and customer satisfaction during the Covid-19 pandemic in the Colombo district. Further, it was identified that there is an impact of digital banking on customer satisfaction during the Covid-19 pandemic (P<, b=). There is a negative relationship between facilitating condition factors and customer satisfaction during the Covid-19 pandemic. Further, it was identified that there is an impact of digital banking on customer satisfaction during the Covid-19 pandemic. (P>, =b)

When comparing the previous research results before the Covid-19 pandemic, we have identified that most people are moved to digital banking, improved their awareness of digital banking, and understood its importance due to the pandemic. Because of that, performance expectancy and effort expectancy have a higher positive relationship with customer satisfaction than before. And also social influence has increased more than before since there was no solution to doing banking activities than moving to e-banking during the lockdown period under the covid-19 pandemic. But support or guidance for people with usage skills, the facility provided is not sufficient to conduct digital banking in Sri Lanka. Poor internet connection and lack of computers and other required devices highly impact that. But people had to use these things while facing such problems due to no other solution during the lockdown period in the country. Those reasons were reduced customer satisfaction and increased negative relationships between facilitating condition factors than before. When considering the previous research, we have identified those kinds of differences in customer satisfaction on digital banking.

5. CONCLUSION AND FUTURE WORK

The objective of this research was based on identifying the factors that most impact digital banking on customer satisfaction during the Covid-19 pandemic. Changes in the banking sector can be inferred from the above analysis model. Due to this pandemic, there should be more awareness among the public and the use of digital banking by the public. It can be a great solution to non-flexible problems. To study the changes in the banking field due to Covid-19 and to know customer satisfaction and opinion about banking services has become an important topic. This research study is a comprehensive investigation on the impact of digital banking on customer satisfaction during the Covid-19 pandemic based on the collected data from the banking customers in the Colombo district.

Based on the analysis result, digital banking played the main role among banking customers and it became a very useful thing to their life during the Covid-19 period. From the respondents, 93.9% used digital banking during this Covid-19 pandemic. Some of the customers used digital banking before the Covid-19 period but based on the collected data the usage of digital banking is highly increased during the Covid-19 period. Based on customer responses because of digital banking activities converted to easy, quick, and time-saving tasks.

Based on the responses some customers had difficulties in learning how to use digital banking. It is important to have easily understandable, user-friendly interfaces, low technical things, and simple English in digital banking applications or websites. And some had to face difficulties due to bad Internet connection. According to the responses, most of them are likely to use digital banking in the future after the Covid-19 pandemic since it becomes the main part of their banking usage. Because of that, it is really important to understand the limitations and difficulties of current digital banking customers and reduce those problems.

The Sri Lankan banking system is based on the traditional method that has continued for a long time. Therefore, the time has come to shift from traditional systems to digital banking. Sri Lanka as a developing country it is important to check the possibility of adapting to digital banking. Understanding and policy implications regarding the establishment of e-banking in the country can be very useful to continue banking activities even under this type of pandemic. Based on the research findings we understand that there are some issues that are facing customers through this process. Internet problems, device problems, lack of knowledge to use those systems, and security problems are some examples.

The government can implement relevant policies to overcome these issues with the help of the banking authorities. Need to improve the awareness of the customers about how to use digital banking services without any problems. And also it is important to have rules and policies for managing digital banking activities with high security when people work online. However, the research advises that findings will help to take decisions for governments, banking authorities as well as customers to continue digital banking without any interruption.

In future work, we are planning to increase the number of responses, specially outside the Colombo district, and understand the difference between customer satisfaction in Colombo and outside the Colombo district. Those results will be useful to understand the existing problems and purpose solutions for improving digital banking in the banking industry. And also as an innovative part, we are planning to propose a predicting model for future usage of digital banking using data mining algorithms.

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