The Role of Financial Institution Facilities in Ensuring Customer Contentment in Commercial Banking Institutions in Bamenda-Cameroon

¹Dr. Fuein Vera; ²Njekang Dieudonne Nkwati ¹Faculty of Economics and Management Sciences-University of Bamenda-Cameroon ²PhD Researcher and Graduate Teaching Assistant, Department of Banking and Finance Faculty of Economics and Management Sciences-University of Bamenda-Cameroon

Abstract:- Banks across the globe have been experiencing fast changes in recent years. The banking industry in particular has benefited greatly from the expansion of information technology which has allowed for numerous delivery routes for online consumers and the rapid resolution of concerns. This study seeks to find out the role of financial institution facilities in ensuring customer contentment in commercial banking institutions in Bamenda-Cameroon. A questionnaire was used in the study and it was administered to bank employees, government employees and some business owners. Simple random sampling technique was employed as a sample technique and simple linear regression analysis was used to analyze the data. The population size for this study was 700 and a total of 280 questionnaires were distributed but 254 questionnaires were returned resulting to a sample size of 254. The findings of this study revealed that frequent use of ATM cards has a significant positive effect on consumer contentment, financial institution facilities also has a positive effect on the consumer contentment and internet banking has a significant negative effect on consumer contentment. Digitalization of banking activities also helps to reduce fraud because information cannot be altered. The study recommends that financial institution facilities should involve uploading of documents for account opening and loan request. Consumer contentment is priority to achieving banking goals based on the quality of services provided by banks to meet the needs of customers. It is recommended that banks should improve on the quality of digitalized services in order to increase the customer base of the bank.

Keywords:- Commercial Banks, Consumer Contentment and Financial Institution Facilities.

I. INTRODUCTION

The banking industry has seen rapid change due to the expansion of information technology, allowing for online delivery routes and quick resolution of concerns. The 21st century's competition intensifies due to financial institution

fcailities, revolutionizing customer interactions and making transactions more efficient. Banks must adopt financial institution facilities to maintain their competitive edge and satisfy customer demands. However, customers may be hesitant due to lack of familiarity with electronic banking services. The digital revolution has led to a cutthroat profit share race in the financial industry, with digitalization being the most significant development. Therefore, banks must adopt financial institution facilities to maintain customer satisfaction and loyalty, (Stevenn, 2010). Electronic banking, coined by Swaminathan & Ananth (2010), refers to the automated delivery of banking goods and services to customers through electronic channels like computers, ATMs, and websites. It includes low-dollar financial services online. Pahnila & Pikkarainen (2004) define it as an electronic portal for various banking services, allowing customers to conduct transactions with just a few clicks.

Moreover, electronic banking involves financial intermediation through electronic systems, allowing customers to access accounts, transact business, and obtain information on financial products and services on public or private networks. Examples include direct deposit of wages into checking or saving accounts, which provides 24-hour access to cash through ATMs with Personal Identification Numbers (PIN). Automated teller machines (ATMs) are used by banks worldwide, including in developing nations like Cameroon, for convenient banking transactions, (Kateeba, 2001 and Marsh, 2005). Globalisation and intense competition have made the Internet a crucial channel for financial services distribution. Banks have benefited from electronic banking services due to the shift in customer engagement with financial institutions. The distribution of electronic banking goods and services improves efficiency and efficacy, allowing banks to handle more transactions quickly and with greater ease. In the commercial world, client service is paramount, and sales, profits, and market share all rise when consumers are happy. Modern consumers prioritize convenience and efficiency over security of investments and income. However, the quality of services offered is the most significant issue impacting customer attitudes towards online banking, with

only a fraction preferring performed and e-banking, (Flavian & Torres, 2012; Thomas, 2002; Agarwal & Josh, 2016; Kwashie, 2012 and Hesket et al (2011).

In today's global market, businesses must understand and satisfy customer expectations to thrive. Technological advancements have significantly impacted the financial services industry, forcing banks to provide electronic services. Finland is now the global leader in electronic banking, but its penetration remains low. Emerging countries benefit from leveraging developed economies' expertise. Most banks now use electronic banking, which has been shown to increase customer satisfaction with financial services. Customer satisfaction is defined as an emotional response to the difference between what customers expect and what they receive regarding the fulfillment of needs, goals, or desires. The introduction of electronic banking is expected to increase customer satisfaction with banking services, (Mishra & Kiranamai, 2009). Customer satisfaction is influenced by meeting pre-consumption expectations which are built before using a product. Consumers evaluate the product's performance against these expectations, assigning a level of satisfaction. Positive confirmation indicates the product exceeded expectations, negative disconfirmation indicates the opposite, and basic confirmation aligns with predictions. Buyers judge a product's efficacy by contrasting their expectations with their actual performance, as per Lovelock & Wirtz (2011).

Despite the widespread use of financial instituion facilities, longer lines and large cash amounts persist, regardless of the increased investment in infrastructure and mobile centers. The growing complications of digitalization are likely to be the cause. Consumer complaints about ATMs, such as cancellations, undoes, and refunds, are seldom discussed. This study investigates the effect of financial institution facilities on customer contentment in a sample of Northwest Region's commercial banks, (Bwonditi, 2010). Banks offer a variety of easy-to-use, accessible, and aesthetically pleasing services to compete for clients. Digitization has increased the space between banks and consumers, allowing better customer service, reduced wait times, and 24/7 cash withdrawals. Advantages of electronic banking include sending and receiving funds, collecting receivables, paying bills, increasing productivity, reducing transaction costs, enhancing customer service, and monitoring account activity, (Akindele and Rotimi, 2014).

Banks are enhancing their facilities through modern financial institution facilities but face complaints about machine breakdowns, cash shortages, inability to print statements, frequent ATM outages, additional fees, insufficient training of employees, and inadequate backup systems. This research aims to identify the root causes of these issues and propose concrete solutions to improve customer experience. Banks face intense competition in the market and must expand their electronic banking services to meet customer needs. The Covid-19 pandemic and rising bank demand have impacted financial transactions, necessitating a cashless society.

https://doi.org/10.38124/ijisrt/IJISRT24MAR2206

II. LITERATURE REVIEW

For the justification of the relationship amongst the concepts involved in this study, some theories were used. These include the Technology Acceptance Model (TAM) of Davis (2009). Davis (2009) suggested the Technology Acceptance Model (TAM) as a means to anticipate and explain the adoption of information technology by focusing on why people accept or reject it and how to enhance it. Of importance too in this study is the Theory of Reasoned Action (TRA). The theory holds that one's attitude may either be good or bad, depending on the person's emotional state and propensity. The Theory of Reasoned Action is a broader framework that has been used to explain actions in contexts other than the acceptance of new technologies. On its part, the Innovation Diffusion Theory of E.M. Rogers in 2015 describes the gradual growth and diffusion of an idea or product within a certain population. . The end result of this spreading is that people adopt a new way of thinking, doing, or using something as part of a larger societal framework. If someone is receiving something, it means they are doing something different than they were previously (such as acquiring and using a new product, adopting a new behaviour, etc.). Above all, the Self Determination Theory (SDT) of Gabriel Lopez Garrido, (April 2023) contends that pursuing activities that are intrinsically motivating and linked with one's own objectives not only makes one happy but also makes one feel accountable for one's success and allows one to truly concentrate on what one wants to achieve.

A plethora of studies from varied authors have been reviewed by these researchers with varying approaches and outcomes. Yitbarek, 2015 in his research found that customers prefer electronic banking services for quality, dependability, customer assistance, and simplicity. Commercial banks face challenges like downtime due to inadequate ICT infrastructure, sustainable power supply, and lack of ICT awareness. Milion, 2013 in a realted study found that ebanking customers are younger, educated, salaried, and students, while business professionals are less likely to use it. The study suggests that e-banking can improve customer satisfaction by reducing waiting times for assistance and giving them more financial control. Ching et al. (2011) found a significant correlation between perceived utility, perceived advantages, and personal innovativeness in Malaysians' willingness to adopt mobile banking. This study has implications for the design and implementation of mobile banking services in Malaysia. Siam, (2016) on his part found a negative impact of mobile banking on bank profitability in Jordan, but long-term benefits are expected. Bagudu, Khan, and Abdul-Hakim (2017) found that commercial banks in

Nigeria benefit from mobile banking in a positive and substantial way, providing strategic insights for banks, service providers, and software engineers.

Kingoo (2011) and Kigen (2010) conducted research on the impact of electronic banking on commercial banks in Kenva. They found that banks that had already implemented mobile banking performed better. Invangala (2014) compared conventional banks' financial success with Islamic banks' success, using secondary sources and multivariate analysis. The results showed that mobile banking is the most important factor in the success of Kenya's Islamic financial institutions, despite initial lower transaction costs. The study by Kathuo et al. (2015) found that mobile banking transactions have significantly increased in Kenyan banks since its inception. This has led to a broadened client base and improved financial performance. Kithaka (2014) conducted a descriptive crosssectional survey on Kenva's commercial banks, revealing that factors such as annual money transfers, user numbers, capital adequacy, asset quality, bank liquidity, and management efficiency all impact the financial performance of these banks. Agboola (2006) found that technology is the primary driving force of competition in Nigeria's banking industry, with the rise of ATMs, electronic funds transfers, smart cards, and telephone banking. To remain competitive, banks must invest in ICT solutions to improve service speed, customer convenience, and accuracy. Tiwari, Buse, and Herstatt (2016) studied mobile banking, finding that perceived credibility and financial cost are major barriers to adoption. To improve customer trust, banks should increase customer awareness through face-to-face contact and promote quality initiatives, while also evaluating the cost of mobile banking services.

AKI (2012) found that new technologies can supplement traditional banking services, but not replace branch networks. Finland's banking industry has seen significant changes, with 42% of households having internet access and 90% access to mobile banking services. Technology management aims to increase customer happiness, reduce costs, and analyze consumer data. Durkin and Howcroft (2013) found that mobile banking has enhanced the banker-customer relationship, making banks more competitive. Brown et al. (2013) found that individuals' perceptions of benefits, the quantity of banking services needed, the level of risk they were willing to take, and the availability of a trial period significantly influenced their adoption of mobile banking. Lee et al. (2003) found that consumers' prior experience and self-efficacy generalized their beliefs towards mobile banking adoption, while perceived risk was a negative factor. Suoranta and Mattila (2014) classified 1253 respondents into non-users, occasional users, and frequent users based on their familiarity with and frequency of using mobile banking. Mass media and interpersonal word of mouth were found to be more effective than personal persuasion in influencing adoption. Luarn and Lin (2015) and Amin et al. (2008) used the Technology acceptance model to investigate people's intentions towards mobile banking, finding that factors such as trust, perceived cost, legitimacy, simplicity of use, and utility significantly influenced adoption.

https://doi.org/10.38124/ijisrt/IJISRT24MAR2206

Laukkanen et al. (2017) and Yang (2009) found that perceived value and ease of use were the main barriers to mobile banking adoption. Cruz et al. (2010) found that the cost of internet connection and service, as well as perceived danger, were significant deterrents. Puschel et al. (2010) and King (2012) found that social networks, perceived financial cost, performance expectation, and perceived trustworthiness significantly influenced individuals' intentions to use mobile banking. Age and gender played a more moderating role in adoption behavior. Ndung'u (2013) conducted a survey on financial institutions in Kenya and found that online banking balance inquiries were the most popular service. The study also found that people of a certain age and economic bracket are more likely to use mobile banking than those of a different demographic. The key variables driving consumers to use mobile banking include perceived advantages, self-efficacy, financial costs, credibility, ease of use, and usefulness.

Research on the role of financial isntitution facilities on consumer contentment is limited in Cameroon, a rapidly developing country. Most studies focus on adoption and usage, but do not capture consumer contentment and digitalized banking services. Cameroon's unique cultural, economic, and regulatory environment may influence how financial institution facilities are perceived and utilized. Addressing this research gap could provide valuable insights for banks in Cameroon and contribute to existing literature on financial institution facilities in emerging markets.

III. METHODOLOGICAL ISSUES

Scope/Population and Sample

This study examines the role of financial institution facilities on consumer contentment in commercial banks in the North West Region of Cameroon, including mobile, internet and bank card services, considering the stability of financial institutions as major payment systems. The target population for this study includes commercial bank employees and clients from the North West Region of Cameroon on which questionnaires were administered on a sample of 280 respondents.

➢ Model Specification

A model is a mathematical concept that explains the functional connection between two variables. System models investigate specific parts of a system, while ordinary least square regression analysis illustrates the dependent and independent variables. The study used a linear model derived from a normal econometric model.

FIF = f ($\beta o.\beta 1STi$, $\beta 2ILi$, βi TFi,)

.....(1)

ISSN No:-2456-2165

The econometric derivation

 $D.B_{i} = \beta_{0} + \beta_{1} MBi_{+}\beta_{2} INi^{+} \beta_{3}BC_{i}^{+} e$(2)

And finally the econometric derivation

 $\mathbf{CCi} = \beta_0 + \beta_1 \mathbf{TFi} + \beta_2 \mathbf{PPi} + \beta_3 \mathbf{BCi} + \beta_4 \mathbf{RPi} + \beta_5 \mathbf{STi} + \mathbf{e}$(3)

Where;

 $\begin{array}{l} CC = Dependent \ variable \ and, \\ FIF= \ Independent \ variables \\ C.V= \ Control \ variables \\ e: \ is \ the \ error \ term \\ \beta_0: \ is \ the \ intercept \ of \ regression \ equations \ or \ the \ constant \ term \\ \beta_{X}: \ are \ the \ coefficients \ of \ independent \ variables \end{array}$

Techniques of Data Analysis (Estimation Technique)

The ordinary least square estimation technique was adopted for this study. To justify the use of this technique, the

International Journal of Innovative Science and Research Technology

https://doi.org/10.38124/ijisrt/IJISRT24MAR2206

following preconditions were considered. The standard regression model assumes constant disturbance variance, but heteroscedastic errors are considered. The Breusch-Pagan test checks for heteroscedasticity, with the null hypothesis accepted if p value is large. Equally, Multicollinearity occurs when one independent variable influences another in a regression analysis model. Economic variables interact. making multicollinearity a degree-dependent issue. It exists only if the correlation between them is 0.8 or higher, and no correlation is less. The study uses the serial correlation matrix and Variance Inflation Factors test to detect linear combinations. Above all, The adjusted R-square, probability, number of observations, and frequency are first-order statistical tests used to test the reliability of coefficients estimated in regression analysis. They measure the proportion of total variation in the dependent variable attributed to the independent variables and measure the accuracy of the regression line. The t-statistics test the level of significance of the coefficients, determining the acceptance or rejection of the null hypothesis. The F-ratio measures the overall significance of the adjusted R-square.

IV. PRESENTATION OF FINDINGS

Summary of Descriptive Statistics

| | | Table 1: Descr | iptive Statistics | | |
|----------|-----|----------------|-------------------|-----------|----------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| Cs | 254 | 2.04e-09 | 1.001974 | -2.680522 | 1.989052 |
| Mb | 254 | -7.77e-10 | 1.001974 | -2.711647 | 2.224858 |
| Atm | 254 | -6.76e-10 | 1.001974 | -2.273167 | 1.674384 |
| Ib | 254 | -5.29e-10 | 1.001974 | -2.572433 | 2.080005 |
| Age | 254 | 3.807087 | 1.088109 | 1 | 6 |
| Edu | 254 | 4.893701 | .9903286 | 1 | 7 |
| Olacc | 254 | 1.251969 | .4350004 | 1 | 2 |

Source: author, 2023

The table presents descriptive statistics for five variables: customer satisfaction, mobile banking, automated teller machine, internet banking, age of respondents, educational attainment, and online account status. The mean for customer satisfaction was very close to zero, indicating wide variation in responses. The mean for mobile banking was also very close to zero, indicating neutral perceptions of these services. The mean for age was relatively young, with a wide variation in responses. The mean for educational attainment was 4.893701, indicating a wide variation in responses.

Correlation Results

| | Mb | Atm | Ib | Age | Edu | Olacc |
|-----|---------|---------|--------|---------|--------|-------|
| Mb | 1.0000 | | | | | |
| Atm | 0.1479 | 1.0000 | | | | |
| | 0.0184 | | | | | |
| Ib | -0.0876 | -0.0920 | 1.0000 | | | |
| | 0.1641 | 0.1435 | | | | |
| Age | 0.0165 | -0.0492 | 0.0209 | 1.0000 | | |
| | 0.7935 | 0.4354 | 0.7405 | | | |
| Edu | -0.0002 | -0.0419 | 0.0268 | -0.0851 | 1.0000 | |

Table 2: Pair Wise Correlation Matrix

ISSN No:-2456-2165

https://doi.org/10.38124/ijisrt/IJISRT24MAR2206

| | 0.9978 | 0.5057 | 0.6705 | 0.1762 | | |
|-------|--------|--------|---------|---------|---------|--------|
| Olacc | 0.0351 | 0.0442 | -0.0932 | -0.1140 | -0.1394 | 1.0000 |
| | 0.5773 | 0.4833 | 0.1384 | 0.0697 | 0.0263 | |
| | | ~ | | - | | |

Source: author, 2023

The table shows a correlation matrix between six variables: mobile banking, ATM use, internet banking, age, education level, and online account status. Mobile banking has a positive correlation coefficient of 1.0000, while ATM use has a correlation coefficient of 1.00. Age and education levels also have a slight inverse relationship. Online account status has a slight positive link with mobile banking, while ATM withdrawals have a weak positive link. The correlation matrix reveals a marginally significant positive relationship between mobile banking and online account status, with a modest negative link with traditional online banking.

Regression Results

| | | Table 3: Robust | Ordinary Leas | t Square Result | | |
|-------|----------|------------------|---------------|-----------------|------------|-----------|
| Cs | Coef. | Robust Std. Err. | t | P>t | [95% Conf. | Interval] |
| Mb | .7943666 | .0461868 | 17.20 | 0.000 | .7033964 | .8853368 |
| Atm | .5045085 | .0839652 | 6.01 | 0.000 | .3391294 | .6698876 |
| Ib | 1926711 | .0540903 | -3.56 | 0.000 | 2992082 | 0861341 |
| Age | 0810372 | .0972602 | -0.83 | 0.406 | 2726024 | .1105279 |
| Edu | 1625839 | .11615 | -1.40 | 0.163 | 3913547 | .0661869 |
| Olacc | .1774911 | .263885 | 0.67 | 0.502 | 3422607 | .697243 |
| _cons | -1.17543 | 1.137734 | -1.03 | 0.303 | -3.416327 | 1.065467 |
| | | F(6, 24 | (7) = 336 | .63 | | |
| | | Prob > | F = 0.00 | 000 | | |
| | | R-squar | red = 0.7 | 529 | | |
| | | ~ | | | | |

Source: Author, 2023

The study analyzed customer satisfaction using mobile banking, ATM usage, internet banking, age, education level, and online account status. The results showed a positive correlation between mobile banking and customer contentment, a positive correlation between ATM use and customer happiness, and a negative correlation between online banking and customer satisfaction. Age did not show a significant correlation with customer happiness, and education level did not show a significant correlation. Online account status did not show a correlation with customer satisfaction. The coefficient of determination (R2) showed that 75.29 percent of the variance in consumer happiness can be attributed to explanatory factors, indicating a strong fit for the data.

V. DISCUSSION, CONCLUSION, RECOMMENDATIONS

Discussion of Results

Mobile banking has a positive correlation with customer satisfaction, with a coefficient of 0.79. However, there is a weak positive relationship between mobile banking and financial performance in Kenya, suggesting policymakers should consider mobile banking awareness creation. Mobile banking significantly impacts Nigerian commercial banks' financial performance, with cash withdrawal being the most popular service. The most popular internet banking service is balance enquiry, while online bill payment is the least popular. The costs of mobile banking services significantly impact

Kenyan commercial banks' financial performance, as they help build public trust in the financial system. Improved security and speed with mobile banking lead to increased deposits and profits from borrowing from willing investors. These findings are in line with the works of Mutua (2013) and Ambrose's (2015).

ATM usage has a positive correlation with customer satisfaction, with a one-unit increase in usage resulting in a 0.50 increase in satisfaction. E-banking enhances customer satisfaction by reducing waiting times and giving them more control over their money. Mobile banking has a significant impact on banks' bottom lines, but short-term profits are inevitable. Despite high ATM fraud prevalence, ATM deployment has generally improved Nigerian banks' performance. However, there is a weaker relationship between ATM security and user privacy, suggesting banks should implement additional security measures to combat online scams. A 2017 study found a positive correlation between ATM use and productivity gains, suggesting commercial bank managements should invest heavily in ATMs to improve operational effectiveness. These findings agree with the works of Milion, (2013) and Siam, (2016).

Online banking has a significant negative correlation with customer satisfaction, with an estimated coefficient of -0.1926711. Studies have shown that adopting mobile banking services is positively correlated with perceived utility, ease of use, relative advantages, and personal innovativeness.

ISSN No:-2456-2165

https://doi.org/10.38124/ijisrt/IJISRT24MAR2206

However, a small fraction of banks use internet banking services, despite it potentially increasing productivity. Callaway (2011) found that traffic rank and reach are significant, with domestic deposits and total global deposits per branch correlated with internet use and external connection density. The ratio of noninterest income to earning assets was positively correlated with both traffic rank and reach. Online banking contributes to banks' Return on Equity with a two-year delay, but a negative effect is detected for a one-year delayed dummy. The findings are in agreement with those of by Ching et al. (2011) and Stoica, *et al.* Sargu (2015).

> Conclusion

The study involved 280 questionnaires, with 254 respondents, male (76.4%) and female (23.6%). The sex distribution was mainly male, with a higher percentage of male respondents. The educational attainment of the respondents varied, with a majority of them having a degree or above. The marital status of the respondents varied, with 79 single, 145 married, and 30 divorced. Of the total respondents, 190 had online accounts, while 64 did not. The usage duration of online services varied, with 22% using them for less than a month, 32.7% for one to six months, 27.2% for six to twelve months, and 18.1% for more than a year. The study found that online banking is satisfying due to customer support and responsiveness. However, a minority of respondents were dissatisfied with customization options. Financial institution facilities are growing rapidly, allowing customers to conduct financial transactions from home or office. Financial institutions need to create systems for internet banking even without internet connections.

> Recommendations

In order for the majority of people in Bamenda to use financial institution facilities, banks must develop more thorough ways for users to access their software and financial instituion facilities, allowing users to upload the necessary documents in order to open an account and apply for a loan.

Because most responses from customers were neutral, the researcher also suggests that banks should enhance their financial institution facilities to meet the needs of the different categories of clients based on their understanding of digitalization. That is, banks should create digital services that are user friendly to all the categories of clients amd potential cleints.

In order to ensure proper use of digitalized services, banks should develop training programs for their customers. This will allow all customers to utilize these services. In order to guarantee that online transactions do not support terrorism, banks should set up a system wherein customers can submit proof of transactions to the websites.

REFERENCES

- [1]. Agarwal, P. K., & Josh, C. K. (2016). Impact of Service Quality Gap on Customer Satisfaction: A Study on Electronic Banking Service in Wolaita Sodo, Ethiopia.
- [2]. Ahmed, A., Hamid, M., Mohamed, N., Alabsy, A., & Mukhtar, M. A. (2018). The Impact of Electronic Banking Services on Customer Satisfaction in the Sudanese Banking Sector. 11(6), 102–109. https://doi.org/10.5539/ibr.v11n6p102
- [3]. Akindele, O.J. and Rotimi, O. (2004), analysis of electronic banking and customer satisfaction in Nigeria, European journal of Business and social sciences, Vol.3.No3:14-27
- [4]. Ammar, S.H (2012), Effect of E-banking services on customer value and customer loyalty. An applied study on Jordanian commercial banks. Master thesis of middle east University, Jordan
- [5]. Dauda, S. Y., & Lee, J. (2016). Quality of service and customer satisfaction: a conjoint analysis for the Nigerian bank customers. 34(6), 841–867. https://doi.org/10.1108/IJBM-04-2015-0062
- [6]. Edfy P.(2000) Listening to the voice of the customer. A Journal of communications 9 (4): 15 25
- [7]. Farnis P. W., Bebndle, N. T., and Prefer, P. E. (2010). Marketing Metrics: The definitive Guide to Measuring Marketing Performance (2and end.). Upper Saddle River New Survey. Pearson Education,
- [8]. Flavian C, Torres E. & Guinaliu M.(2012) corporate image measurement; a further problem for the tangibilization of Electronic banking services. International Journal of Bank Marketing 22 (5) 366-84.
- [9]. Hammoud, J., Bizri, R. M., & Baba, I. El. (2018). The Impact of E-Banking Service Quality on Customer Satisfaction : Evidence From the Lebanese Banking Sector. https://doi.org/10.1177/2158244018790633
- [10]. Heskett J, Jones G.W & Sasser. (201]) Putting the service profit chain to work. Harvard Business Review Vol 72 No 2. !64-174.
- [11]. Hossain, M. A., Dwivedi, Y. K., & Binte, S. (2014). Total Quality Management & Business Excellence Developing and validating a hierarchical model of service quality of retail banks. December, 37–41. https://doi.org/10.1080/14783363.2013.856545
- [12]. Kateeba .J.N> September (2001) Video Conferencing and ATM integrated, UB Journal, The Uganda Institute of Bankers, Kampala, Uganda.
- [13]. Lovelock and Wirtz (2011), Services Marketing-People, Technology, and Strategy. 7th Edition, Pearson Prentice Hall.
- [14]. Mei, G., Sook, Y., Kah, L., & Seng, T. (2016). Understanding Customer Satisfaction of Internet Banking: A Case Study In Malacca. Procedia Economics and Finance, 37(16), 80–85. https://doi.org/10.1016/S2212-5671(16)30096-X

https://doi.org/10.38124/ijisrt/IJISRT24MAR2206

- ISSN No:-2456-2165
- [15]. Mussime, A., Biyaki, P. and Mahmood, F. (2010). Impact of information technology usage by banks on customer satisfaction in banking sector of Pakistan. Management and Administrative science review, 2(2), 211-232.
- [16]. Nigel Hill, GregRoche, Rachel Allen (2007). Customer satisfaction: The customer experience through the customers eyes.
- [17]. Safi, K. U., & Awan, T. M. (2018). IMPACT OF PERCEIVED SERVICE QUALITY ON CUSTOMER LOYALTY: EVIDENCE FROM CASUAL DINING RESTAURANTS OF. 08(01), 30–46.
- [18]. Suresh & Padmalatha (2011) page 530 and 479. Management of banking and financial services.

- [19]. Swaminathan J. & Ananth A, (2010) customer satisfaction on e- banking; a study with special reference to mayiladuthurai: published in share journal of multidisciplinary Research and studies, Vol 2, No 1 (January 2011) pp 42-47
- [20]. Timothy A (2012), Electronic Banking Services and Customer Satisfaction in the Nigerian Banking Industry. International Journal of Business and Management 2(1), 1-8.
- [21]. Toor, A., Hunain, M., Hussain, T., Ali, S., & Shahid, A. (2016). The Impact of E-Banking on Customer Satisfaction: Evidence from Banking Sector of Pakistan. 5(2), 27–40. https://doi.org/10.5430/jbar.v5n2p27
- [22]. Yitbarek, S (2015). Impact of e-banking service on customer satisfaction in Addis Ababa. MBA thesis, Addis Ababa University.

| | | Appendix 1: M | CA Results fo | or Mobile Bank | ing Index | | |
|------|--|--|---|--|------------------------------|---|-----------------------|
| Mult | iple/Joint co Method: Burt, | orrespondence a /adjusted inert | nalysis ias | Number Total i Number | of obs inertia of axes | = | 254 .06481841 2 |
| | Dimension | principal inertia | percent | cumul percent | | | |
| | dim 1 dim 2 dim 3 dim 4 dim 5 dim 6 dim 7 dim 8 | .0150659 .0091296 .0075682 .0049861 .0031765 .0020065 .0012602 .0000736 | 23.24 14.08 11.68 7.69 4.90 3.10 1.94 0.11 | 23.24 37.33 49.00 56.70 61.60 64.69 66.64 66.75 | | | |
| | dim 9 Total | .0648184 | 100.00 | 66.81 | | | |

APPENDICES

| | 1 | overall | | d: | mension | 1 | d: | mension | 2 |
|------------|-------|---------|--------|--------|---------|---------|--------|---------|---------|
| Categories | mass | quality | %inert | coord | sqcorr | contrib | coord | sqcorr | contrib |
| nb1 | | | | | | | | | |
| 1 | 0.047 | 0.125 | 0.047 | 0.212 | 0.011 | 0.002 | 0.895 | 0.114 | 0.038 |
| 2 | 0.025 | 0.346 | 0.061 | -1.878 | 0.340 | 0.089 | 0.310 | 0.006 | 0.002 |
| 3 | 0.035 | 0.544 | 0.046 | 1.668 | 0.488 | 0.096 | -0.729 | 0.057 | 0.018 |
| 4 | 0.056 | 0.277 | 0.034 | -0.707 | 0.193 | 0.028 | -0.596 | 0.083 | 0.020 |
| 5 | 0.037 | 0.181 | 0.014 | 0.513 | 0.161 | 0.010 | 0.229 | 0.020 | 0.002 |
| nb2 | | | | | | | | | |
| 1 | 0.017 | 0.512 | 0.068 | -1.557 | 0.137 | 0.040 | 3.308 | 0.375 | 0.181 |
| 2 | 0.028 | 0.318 | 0.038 | 1.375 | 0.317 | 0.052 | 0.041 | 0.000 | 0.000 |
| 3 | 0.039 | 0.633 | 0.060 | -1.380 | 0.293 | 0.075 | -1.912 | 0.340 | 0.144 |
| 4 | 0.068 | 0.455 | 0.034 | 0.921 | 0.389 | 0.057 | 0.489 | 0.066 | 0.016 |
| 5 | 0.049 | 0.059 | 0.042 | -0.414 | 0.046 | 0.008 | -0.280 | 0.013 | 0.004 |
| nb 3 | | | | | | | | | |
| 1 | 0.106 | 0.700 | 0.037 | 0.981 | 0.637 | 0.102 | 0.397 | 0.063 | 0.017 |
| 2 | 0.073 | 0.686 | 0.053 | -1.453 | 0.680 | 0.155 | 0.181 | 0.006 | 0.002 |
| з | 0.021 | 0.384 | 0.053 | 0.135 | 0.002 | 0.000 | -2.591 | 0.382 | 0.143 |
| nb4 | | | | | | | | | |
| 1 | 0.015 | 0.267 | 0.063 | -1.007 | 0.056 | 0.015 | 2.521 | 0.211 | 0.095 |
| 2 | 0.028 | 0.434 | 0.063 | -2.032 | 0.434 | 0.117 | 0.081 | 0.000 | 0.000 |
| 3 | 0.051 | 0.263 | 0.021 | 0.685 | 0.262 | 0.024 | -0.037 | 0.000 | 0.000 |
| 4 | 0.065 | 0.091 | 0.030 | -0.144 | 0.010 | 0.001 | 0.517 | 0.081 | 0.017 |
| 5 | 0.040 | 0.576 | 0.054 | 1.172 | 0.238 | 0.055 | -1.791 | 0.338 | 0.129 |
| nb5 | | | | | | | | | |
| 1 | 0.029 | 0.416 | 0.032 | -0.661 | 0.091 | 0.013 | -1.600 | 0.325 | 0.075 |
| 2 | 0.041 | 0.008 | 0.036 | -0.109 | 0.003 | 0.000 | 0.177 | 0.005 | 0.001 |
| 3 | 0.028 | 0.189 | 0.037 | -0.460 | 0.036 | 0.006 | -1.215 | 0.153 | 0.041 |
| 4 | 0.042 | 0.089 | 0.035 | -0.404 | 0.046 | 0.007 | 0.508 | 0.044 | 0.011 |
| 5 | 0.061 | 0.402 | 0.042 | 0.879 | 0.256 | 0.047 | 0.852 | 0.146 | 0.044 |

| Multi | ple/Joint co Method: Burt/ | orrespondence a adjusted inert | nalysis ias | Numbe Total Numbe | er of obs inertia er of axes | = = = | 254 .12843351 2 |
|-------|-------------------------------|-----------------------------------|----------------|-------------------------|------------------------------------|-------------|-----------------------|
| | Dimension | principal inertia | percent | cumul percent | | | |
| _ | dim 1 | .0401834 | 31.29 | 31.29 | | | |
| | dim 2 | .0181323 | 14.12 | 45.41 | | | |
| | dim 3 | .0106946 | 8.33 | 53.73 | | | |
| | dim 4 | .0080801 | 6.29 | 60.02 | | | |
| | dim 5 | .0046792 | 3.64 | 63.67 | | | |
| | dim 6 | .0028993 | 2.26 | 65.92 | | | |
| | dim 7 | .0018937 | 1.47 | 67.40 | | | |
| | dim 8 | .0009615 | 0.75 | 68.15 | | | |
| | dim 9 | .0004919 | 0.38 | 68.53 | | | |
| | dim 10 | .0000156 | 0.01 | 68.54 | | | |
| | Total | .1284335 | 100.00 | | | | |

Appendix 2: MCA Results for Automated Teller Machine Index

| | | overall | | d | imension | 1 | d | imension | 2 |
|------------|-------|---------|--------|--------|----------|---------|--------|----------|---------|
| Categories | mass | quality | %inert | coord | sqcorr | contrib | coord | sqcorr | contrib |
| atml | | | | | | | | | |
| 1 | 0.031 | 0.060 | 0.011 | 0.237 | 0.049 | 0.002 | 0.163 | 0.011 | 0.001 |
| 2 | 0.043 | 0.727 | 0.053 | -1.676 | 0.699 | 0.119 | 0.500 | 0.028 | 0.011 |
| 3 | 0.023 | 0.265 | 0.034 | 0.945 | 0.187 | 0.020 | -0.910 | 0.078 | 0.019 |
| 4 | 0.052 | 0.389 | 0.021 | 0.716 | 0.388 | 0.027 | -0.061 | 0.001 | 0.000 |
| 5 | 0.051 | 0.011 | 0.015 | 0.097 | 0.010 | 0.000 | -0.049 | 0.001 | 0.000 |
| .tm2 | | | | | | | | | |
| 1 | 0.029 | 0.515 | 0.062 | -1.407 | 0.293 | 0.058 | -1.826 | 0.223 | 0.097 |
| 2 | 0.037 | 0.499 | 0.050 | 1.353 | 0.422 | 0.068 | -0.857 | 0.076 | 0.027 |
| 3 | 0.038 | 0.599 | 0.070 | -1.424 | 0.342 | 0.077 | 1.839 | 0.257 | 0.128 |
| 4 | 0.041 | 0.241 | 0.045 | 0.913 | 0.238 | 0.034 | -0.167 | 0.004 | 0.001 |
| 5 | 0.055 | 0.107 | 0.015 | 0.134 | 0.021 | 0.001 | 0.404 | 0.086 | 0.009 |
| itm3 | | | | | | | | | |
| 1 | 0.032 | 0.356 | 0.027 | 0.970 | 0.348 | 0.030 | -0.219 | 0.008 | 0.002 |
| 2 | 0.032 | 0.667 | 0.090 | -1.556 | 0.273 | 0.078 | -2.783 | 0.394 | 0.250 |
| 3 | 0.028 | 0.294 | 0.040 | 1.148 | 0.293 | 0.037 | 0.114 | 0.001 | 0.000 |
| 4 | 0.047 | 0.694 | 0.085 | -1.688 | 0.498 | 0.135 | 1.581 | 0.197 | 0.118 |
| 5 | 0.060 | 0.488 | 0.049 | 1.105 | 0.471 | 0.073 | 0.317 | 0.018 | 0.006 |
| ıtm4 | | | | | | | | | |
| 1 | 0.031 | 0.137 | 0.047 | -0.559 | 0.063 | 0.010 | -0.893 | 0.073 | 0.024 |
| 2 | 0.026 | 0.214 | 0.037 | 0.859 | 0.163 | 0.019 | 0.718 | 0.051 | 0.013 |
| 3 | 0.029 | 0.579 | 0.047 | -1.274 | 0.313 | 0.047 | -1.752 | 0.267 | 0.089 |
| 4 | 0.057 | 0.630 | 0.045 | 1.242 | 0.610 | 0.089 | 0.335 | 0.020 | 0.006 |
| 5 | 0.057 | 0.454 | 0.028 | -0.695 | 0.307 | 0.027 | 0.715 | 0.147 | 0.029 |
| itm5 | | | | | | | | | |
| 1 | 0.039 | 0.230 | 0.030 | 0.610 | 0.153 | 0.015 | 0.644 | 0.077 | 0.016 |
| 2 | 0.028 | 0.281 | 0.035 | -0.778 | 0.153 | 0.017 | -1.059 | 0.128 | 0.032 |
| 3 | 0.024 | 0.661 | 0.024 | 0.690 | 0.154 | 0.012 | -1.860 | 0.507 | 0.084 |
| 4 | 0.056 | 0.073 | 0.023 | -0.295 | 0.066 | 0.005 | 0.138 | 0.007 | 0.001 |
| 5 | 0.052 | 0.297 | 0.017 | -0.044 | 0.002 | 0.000 | 0.815 | 0.295 | 0.034 |

| Mult. | iple/Joint co Method: Burt/ | orrespondence a /adjusted inert | nalysis ias | Numbe Total Numbe | er of obs . inertia er of axes | = = = | 254 .15463332 2 |
|-------|--------------------------------|------------------------------------|----------------|-------------------------|--------------------------------------|-------------|-----------------------|
| | Dimension | principal inertia | percent | cumul percent | | | |
| | dim 1 | .0378779 | 24.50 | 24.50 | | | |
| | dim 2 dim 3 | .0368452 | 23.83 10.85 | 48.32 59.18 | | | |
| | dim 4 dim 5 | .0129805 .004257 | 8.39 2.75 | 67.57 70.33 | | | |
| | dim 6 | .0027607 | 1.79 | 72.11 | | | |
| | dim / dim 8 | .0020009 | 1.29 0.63 | 73.40 | | | |
| - | dim 9 | .0001868 | 0.12 | 74.15 | | | |
| | Total | .1546333 | 100.00 | | | | |

Appendix 3: MCA Results for Internet Banking Index

| | I | overall | | di | imension | 1 | d | mension | 2 |
|------------|-------|---------|--------|--------|----------|---------|--------|---------|---------|
| Categories | mass | quality | %inert | coord | sqcorr | contrib | coord | sqcorr | contrib |
| ibl | | | | | | | | | |
| 1 | 0.035 | 0.497 | 0.050 | 1.190 | 0.248 | 0.050 | 1.213 | 0.250 | 0.052 |
| 2 | 0.031 | 0.567 | 0.038 | -1.667 | 0.560 | 0.088 | -0.180 | 0.006 | 0.001 |
| 3 | 0.028 | 0.115 | 0.016 | 0.430 | 0.079 | 0.005 | 0.293 | 0.036 | 0.002 |
| 4 | 0.049 | 0.766 | 0.046 | 0.655 | 0.111 | 0.021 | -1.613 | 0.655 | 0.127 |
| 5 | 0.056 | 0.400 | 0.024 | -0.605 | 0.207 | 0.020 | 0.593 | 0.193 | 0.020 |
| .b2 | | | | | | | | | |
| 1 | 0.025 | 0.545 | 0.056 | -1.681 | 0.310 | 0.071 | 1.487 | 0.236 | 0.056 |
| 2 | 0.037 | 0.658 | 0.051 | 1.807 | 0.578 | 0.121 | 0.685 | 0.081 | 0.017 |
| 3 | 0.035 | 0.602 | 0.036 | -1.428 | 0.491 | 0.072 | -0.689 | 0.111 | 0.017 |
| 4 | 0.048 | 0.155 | 0.027 | 0.230 | 0.023 | 0.003 | 0.562 | 0.132 | 0.015 |
| 5 | 0.054 | 0.614 | 0.032 | 0.277 | 0.032 | 0.004 | -1.204 | 0.582 | 0.079 |
| ib3 | | | | | | | | | |
| 1 | 0.031 | 0.322 | 0.041 | 1.022 | 0.197 | 0.033 | -0.827 | 0.125 | 0.022 |
| 2 | 0.041 | 0.635 | 0.063 | -1.855 | 0.552 | 0.141 | 0.730 | 0.083 | 0.022 |
| 3 | 0.039 | 0.723 | 0.047 | 1.414 | 0.413 | 0.079 | 1.243 | 0.310 | 0.061 |
| 4 | 0.045 | 0.635 | 0.063 | 0.037 | 0.000 | 0.000 | -1.929 | 0.634 | 0.167 |
| 5 | 0.043 | 0.186 | 0.039 | -0.313 | 0.026 | 0.004 | 0.780 | 0.159 | 0.026 |
| .b4 | | | | | | | | | |
| 1 | 0.033 | 0.581 | 0.040 | -1.700 | 0.580 | 0.096 | -0.055 | 0.001 | 0.000 |
| 2 | 0.043 | 0.489 | 0.048 | 1.297 | 0.361 | 0.072 | -0.783 | 0.128 | 0.026 |
| 3 | 0.039 | 0.296 | 0.041 | -1.103 | 0.279 | 0.047 | 0.279 | 0.017 | 0.003 |
| 4 | 0.046 | 0.664 | 0.045 | 0.686 | 0.117 | 0.022 | 1.507 | 0.547 | 0.104 |
| 5 | 0.040 | 0.290 | 0.044 | 0.306 | 0.021 | 0.004 | -1.109 | 0.269 | 0.049 |
| ib5 | | | | | | | | | |
| 1 | 0.039 | 0.271 | 0.024 | 0.452 | 0.082 | 0.008 | -0.697 | 0.189 | 0.019 |
| 2 | 0.044 | 0.348 | 0.034 | -0.767 | 0.187 | 0.026 | -0.721 | 0.161 | 0.023 |
| 3 | 0.032 | 0.034 | 0.020 | 0.155 | 0.010 | 0.001 | 0.253 | 0.025 | 0.002 |
| 4 | 0.040 | 0.042 | 0.034 | -0.268 | 0.021 | 0.003 | -0.270 | 0.021 | 0.003 |
| 5 | 0.044 | 0.597 | 0.039 | 0.494 | 0.067 | 0.011 | 1.404 | 0.530 | 0.087 |

Г

| Multiple | Joint co | orrespondence a | nalysis | Numbe Total | r of obs inertia | = | 254 .081468 |
|----------|----------------|----------------------|--------------|------------------|---------------------|---|----------------|
| Metho | od: Burt/ | adjusted inert | ias | Numbe | r of axes | = | 2 |
| Dir | mension | principal inertia | percent | cumul percent | | | |
| | dim 1 | .0160311 | 19.68 | 19.68 | | | |
| | dim 3 | .0122134 | 14.99 | 51.43 | | | |
| | dim 4 dim 5 | .0054435 .0031035 | 6.68 3.81 | 58.11 61.92 | | | |
| | dim 6 dim 7 | .0026137 .0017194 | 3.21 2.11 | 65.13 67.24 | | | |
| | dim 8 dim 9 | .0008026 .0000345 | 0.99 0.04 | 68.23 68.27 | | | |
| | Total | .081468 | 100.00 | | | | |

Appendix 4: MCA Results for Customer Satisfaction Index

| | | overall | | d | imension_ | 1 | d | imension_ | 2 |
|------------|-------|---------|--------|--------|-----------|---------|--------|-----------|---------|
| Categories | mass | quality | %inert | coord | sqcorr | contrib | coord | sqcorr | contrib |
| cs1 | | | | | | | | | |
| 1 | 0.037 | 0.261 | 0.027 | 0.873 | 0.205 | 0.028 | 0.498 | 0.057 | 0.009 |
| 2 | 0.041 | 0.314 | 0.021 | 0.890 | 0.307 | 0.032 | 0.149 | 0.007 | 0.001 |
| 3 | 0.046 | 0.148 | 0.030 | -0.634 | 0.124 | 0.019 | -0.301 | 0.024 | 0.004 |
| 4 | 0.043 | 0.039 | 0.023 | 0.320 | 0.037 | 0.004 | -0.071 | 0.002 | 0.000 |
| 5 | 0.032 | 0.302 | 0.058 | -1.646 | 0.297 | 0.087 | -0.230 | 0.005 | 0.002 |
| cs2 | | | | | | | | | |
| 1 | 0.024 | 0.095 | 0.022 | -0.654 | 0.094 | 0.010 | -0.084 | 0.001 | 0.000 |
| 2 | 0.030 | 0.658 | 0.057 | 0.966 | 0.096 | 0.028 | 2.531 | 0.562 | 0.192 |
| 3 | 0.044 | 0.319 | 0.035 | -0.593 | 0.088 | 0.016 | -1.044 | 0.232 | 0.048 |
| 4 | 0.067 | 0.046 | 0.032 | 0.327 | 0.044 | 0.007 | 0.062 | 0.001 | 0.000 |
| 5 | 0.035 | 0.082 | 0.065 | -0.252 | 0.007 | 0.002 | -0.918 | 0.075 | 0.029 |
| cs3 | | | | | | | | | |
| 1 | 0.024 | 0.370 | 0.032 | 1.251 | 0.237 | 0.038 | 1.013 | 0.132 | 0.025 |
| 2 | 0.039 | 0.647 | 0.045 | -1.913 | 0.630 | 0.144 | -0.343 | 0.017 | 0.005 |
| 3 | 0.046 | 0.125 | 0.031 | -0.157 | 0.007 | 0.001 | 0.689 | 0.118 | 0.022 |
| 4 | 0.054 | 0.679 | 0.028 | 1.121 | 0.467 | 0.067 | -0.818 | 0.212 | 0.036 |
| 5 | 0.037 | 0.013 | 0.028 | -0.218 | 0.012 | 0.002 | 0.029 | 0.000 | 0.000 |
| :s4 | | | | | | | | | |
| 1 | 0.025 | 0.289 | 0.041 | 0.549 | 0.036 | 0.008 | 1.572 | 0.253 | 0.062 |
| 2 | 0.032 | 0.427 | 0.041 | 0.172 | 0.005 | 0.001 | -1.790 | 0.422 | 0.103 |
| 3 | 0.050 | 0.273 | 0.041 | 0.953 | 0.217 | 0.045 | -0.525 | 0.056 | 0.014 |
| 4 | 0.057 | 0.602 | 0.056 | -1.411 | 0.402 | 0.114 | 1.077 | 0.200 | 0.067 |
| 5 | 0.035 | 0.064 | 0.041 | 0.408 | 0.028 | 0.006 | -0.500 | 0.036 | 0.009 |
| cs5 | | | | | | | | | |
| 1 | 0.030 | 0.553 | 0.055 | 2.168 | 0.507 | 0.141 | -0.710 | 0.046 | 0.015 |
| 2 | 0.045 | 0.547 | 0.051 | -1.733 | 0.523 | 0.135 | 0.401 | 0.024 | 0.007 |
| 3 | 0.042 | 0.388 | 0.038 | 0.866 | 0.161 | 0.031 | -1.116 | 0.227 | 0.052 |
| 4 | 0.044 | 0.359 | 0.041 | -0.806 | 0.139 | 0.029 | -1.097 | 0.220 | 0.053 |
| 5 | 0.039 | 0.675 | 0.062 | 0.314 | 0.012 | 0.004 | 2.494 | 0.662 | 0.245 |