



Digitisation of Bank Services and Its Impact on Customer Satisfaction and Bank Growth: A Case Study of NBS Bank PLC

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ABSTRACT: This study purposed to investigate the impact of digital banking on customer satisfaction and bank growth case of NBS Bank plc Malawi – Blantyre branch. The objectives of the study were: to determine how efficiency, accessibility, affordability, adaptability and speed of transacting on digital banking services can positively impact on the customer satisfaction and improve performance and bank growth. The target population for the study was bank customers and bank staff from NBS bank plc. The study utilized a sample size of 60 which consisted of 20 customers and 40 bank employees. Descriptive survey design was undertaken and data was collected using a triangulation of methods including questionnaires, interview schedules and document analysis. Data was analysed using excel to find frequencies and percentages and where necessary, mean was calculated and correlation analysis was done. The findings were that efficiency, accessibility, adaptability and speed of transacting on digital services had a significant positive impact on customer satisfaction. The study also revealed that digitisation can positively contribute to favourable Return on Equity and Return of Assets and hence contribute to bank growth. However, the research found that affordability of digital services had little or no significant impact on customer satisfaction. The study recommends that the banks should invest in awareness campaigns or advertisement for the digital products they offer to address lack of awareness and lack of interest to use such services by some customers. They also need to invest in robust systems to reduce or eliminate system downtimes, cases of failed transactions and transactional errors. More investments on cyber security to clear fears of cyber attacks and lastly, more research on customer satisfaction with the bank's digital offerings in order to timely investigate

gaps and encourage customer centric digital innovations.

KEYWORDS: Digitisation, Customer satisfaction, Efficiency, Accessibility, Affordability and Speed transactions

I. INTRODUCTION

Customer expectations have significantly changed over the years (BM Rohtbart, 2022). Modern bank customers expect a friendly, reliable and efficient service. Exposure to superior services in industries outside banking, make the customers demand a similar quality of services from their banks. For instance, customer expectations have been shaped by their positive experiences with online shopping and entertainment platforms where they get the services easily and with great convenience. This makes customers demand same level of service delivery from the banks. However, traditional banks systems could not effectively meet the customers' diverse needs without incurring huge costs. This led to the introduction of technology in banking transactions because with technology, the banks could easily collect data about customer needs and feedback on various products while at the same time providing the much-needed convenient banking services to the customers at a fraction of the cost.

There is also an influx of competitors from adjacent industries and financial technology startups. These are flooding the market with innovative, big tech and fintech-driven solutions which are different from the traditional banking services. TNM Mpamba and Airtel money are among the fiercest competitors to Malawian banks. The entrants of new banks and fintechs with their differentiated products and services, has raised the bar for the banking sector as a whole. Customers across all banking sectors in Malawi, have higher expectations for service delivery. They want the



banking experience which is more convenient, reliable and readily accessible as is the case with the other financial service solutions provided by the fintechs and mobile money companies. The pandemics like covid 19 has also necessitated the increased usage of chatbots, virtual assistants and redirecting customers towards self-service solutions rather than the in-branch services. The government of Malawi also envisions a cashless society by 2026 (Malawi National ICT and digitization Policy Roadmap 2022 – 2026). This stresses on developing and utilising the digital payments systems rather than cash thereby making digitisation, a worthwhile endeavour.

The need for digital banking products and services has been around for quite some time. This is mainly due to the perceived efficiency of transacting by customers and at the same time the ease with which banks can communicate and gain the much-needed customer feedback on these digital platforms. The first computerized digital banking service was offered to consumers in December 1980 by United American Bank which partnered with Radio Shack to produce a secure custom modem for its TRS-80 computer, allowing bank customers to access their account information securely. A year later, New York City was second place to test out the provision of remote digital banking services. Banks such as Citibank, Chase Manhattan, Chemical Bank and Manufacturers Hanover, made digital banking access available to their customers. The United Kingdom joined the digital banking race in 1983. The Bank of Scotland became the first bank in the UK to embrace the innovative technology needed for remote banking capabilities. Their customers were provided with an internet banking service called Home-link. People had to connect to the internet through their TVs and telephones to pay bills and transfer money. The connectivity was slow and unreliable but the disruptive potential of this new ‘telebanking’ service was widely recognized. In 1994, Stanford Federal Credit Union was the first financial institution in North America to provide all of its customers with internet banking. By 1995, Presidential Bank was the first bank in USA to give customers access to their accounts online. By 2006, 80% of USA banks were providing internet banking services and in 2009, Ally Bank was founded as the world’s first all-digital bank. Since its introduction, the bank is seriously overwhelmed by the positive feedback and demand it receives. To date, several improvements have been made to the earlier version and more features are still being added on to satisfy the growing demand of the

service. The digital banking services are growing exponentially such that it is estimated that by 2026 most of the European countries will become officially cashless societies according to Joanna England, 2022 report on “technologies in fintech and the story of online banking.”

In Malawi digital banking services have been introduced recently. Previously, most people were unbanked. By 2011 only 19% of the adult population were banked. However, through “Malawi’s Technical Assistance Project 2011 to 2018” by the World bank, opportunities for financial sector growth were unlocked. Banks, microfinance institutions and credit cooperatives were enabled to transform their services into the digital space. The project aimed at providing technical assistance, providing access to finance by the unbanked population, modernizing financial structures and national payments systems and strengthening financial sector policy and governance. By 2015 the national payments system was modernized and all commercial banks were connected to a single National Switch (Natswitch). Point-of-sale terminals, automated teller machines, and mobile payments services became interoperable. The Microfinance Institution (MFI) Hub was developed in 2017 enabling microfinance institutions and the savings and credit cooperatives to provide digital services to their clients. There was also an integration of the Hub and the mobile money services into the national switch, hence increasing the use of mobile technology to improve access to financial institutions. With this, customers were able to transact person-to-person payments, bill payments, cash-pull from bank accounts, and cash-push to bank accounts. By 2019, the Automated Trading System was introduced which was linked to the Central Securities Depository on a single digital platform. This enabled the leveraging of technology to improve transaction processing efficiency. By the end of the project in 2018, about 40% of the adult population were banked from 19% in 2011.

1.1 Statement of the problem

Customer satisfaction is a main challenge for most industries and banks are not an exception. All banks strive to satisfy and retain the customers by making their processes, products and services as easy and frictionless as possible. Digitisation gives the traditional banks a chance to deepen customer satisfaction and drive long-term relationships and profitability by embracing the potential to meet expectations and bring banking to the bank. Digitisation improve service



convenience, reduce customer attrition, increase customer loyalty, facilitates the offerings of more services and attract new customers even those in hard-to-reach areas. Now, examining the digitisation and its impact on customer satisfaction and bank growth, is the main reason for this study.

II. NEED OF THE STUDY.

The results of this study could guide bank management and policy makers in decision making regarding the use of digital services to enhance customer satisfaction and to spot gaps if any which must be closed to achieve a better customer service and drive business growth.

The study could be insightful as to how customer satisfaction is critical to the success of the banking sector in terms of increasing market share and profitability in the face of stiff competition.

With this study, new entrants could be kept abreast of the winning tactics they can employ to satisfy their would-be customers.

This study can be a platform for further research work.

Last but not least, the government agencies including the financial sector regulator, which is the Reserve bank of Malawi, could utilize the results in formulation of favourable policies which can enhance the digitisation drive as per the National ICT policy and Malawi National Payments Strategies.

III. RESEARCH METHODOLOGY

Research methodology implies the plan and methods of how the research is conducted. The researcher used a descriptive survey design. A descriptive survey is a study design which involves collecting information from members of a target population by considering status of that population with respect to one or more variables and recording the observations without any manipulation (Voxco, 2021). The survey involved collection of information by interviewing bank customers, administering survey questionnaires to bank employees and document analysis.

A population is the entire group of elements under the study (P.Bhandari, 2022). A target population is a collection of elements about which a researcher would make inferences on. The target population for this study was 40 employees of NBS bank Blantyre branch and 20 Customers. This was deemed adequate for this study as the 40 employees were a representative of the various departments and sections within NBS bank and the 20 customers were selected from those customers visiting the branch and using the ATMs. For such

customers it is not possible to determine the correct population size as they usually come and go at random. The target population of this study consisted 20 customers and 40 bank employees.

A sample is a group of persons or items selected from the population which will be subjected to the study and a sample is usually a representative of the population. The researcher, however, used a census to record responses from all the 40 employees of NBS bank Blantyre branch. This is because the number of respondents was deemed reasonable and it was in the best interest of the researcher to get responses from all the employees. For the customers, convenience sampling was used since the target was on customers visiting the main banking hall and the ATMs and therefore it was practically impossible to estimate the exact size of the population.

A triangulation of research instruments was used in collection of data. These include questionnaires, interview schedules and analysis of bank documents. The data collected was coded and using excel, frequencies, percentages, and where necessary, means and correlation analysis were used to check the relationship between dependent and independent variables. The qualitative data was used to understand bank staff and customers' perceptions while the quantitative data was used to measure those perceptions.

3.1 Theoretical review

The study was guided by two theories. The Process Virtualisation theory which describes a process of moving the physical processes of a bank to a virtual environment in order to eliminate physical contact. This theory asserts that some processes are amenable to virtualisation and others are not. It also identifies two major inhibitors to virtualisation which are sensory requirements and the need for control. The other theory is Diffusion Innovation theory which explains the mechanism of how a new innovation is adopted and becomes successful. The theory identifies resistance to change as a main inhibitor to diffusion of innovation.

3.2 literature review

Olufemi, 2019 noted that most customers are satisfied with e-platforms offered by banks in Nigeria. The main challenges noted were security issues, reluctance by some customers and lack of information. He recommended that banks should use various platforms to offer services to their customers.

Awwad, 2021 found that there is strong



correlation between electronic payments and return on assets and return on equity of the banks. He further stressed the need for banks to invest in e-payments to cater for the diverse needs of the customers.

KO Muluka, 2015 found that digital banking provides more services to the customers than traditional banks. He further argued that digitisation saves time and improve access to information by the customers.

Better than Cash Alliance, 2022 report noted that there was significant economic growth in African countries which embraced digital payments. The report concluded that there was a need for African countries to increase their presence in the digital space.

Marc Prensky, 2001 argued that we should view banking as the digital platforms and that the physical structures like branches are ancillaries to banking. He noted that the future of banking is digital and soon there will be no need for physical structures.

IV. RESULTS AND DISCUSSION

Table 1: Gender of the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	16	29.1	29.6	29.6
Female	38	69.1	70.4	100.0
Total	54	98.2	100.0	

The respondents comprised of 16 males representing 29.6 % and 38 females representing 70.04 %.

Table 2: Age of the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18 TO 28	25	45.5	46.3	46.3
29 TO 39	12	21.8	22.2	68.5
40 TO 50	9	16.4	16.7	85.2
51 +	8	14.5	14.8	100.0
Total	54	98.2	100.0	

25 respondents were the youth aged between 18 to 28 years representing 46.3%, 12 of them were aged 29 to 39 representing 22.2%, those aged between 40 to 50 were 9 only representing 16.7% and finally 14.8% were those aged 50 years and above and they were 8 in total.

Table 3: satisfaction with speed of transacting

Satisfaction level	Frequency	Percentage
Not satisfied	4	7.4
Satisfied	20	37.04
Very satisfied	30	55.56
Total	54	100

30 respondents indicated that they were very satisfied with the speed of transacting on digital services of the bank and 20 others agree

representing a total of 93% (37.04% and 55.56%) of the respondents. Its only 4 respondents who were not satisfied at all representing 7.4%.

Table 4: digital banking adoption

Number of digital services per customer	Frequency	Percentage
1 to 2	16	29.63
3 to 4	13	24.07
5 to 6	10	18.52
7 to 8	8	14.82
Above 8	7	12.96
Total	54	100

16 of the respondents were using 1 to 2 digital services representing 29.63%, 13 respondents had 3 to 4 services representing 24.07%, only 10 respondents had 5 to 6 services representing 18.52%, between 7 to 8 services 8 respondents were registered representing 14.82% and lastly 7 people were registered on more than 8 services representing 12.96%.

Table 5: adoption of digital services among different age groups

Age group	Number of digital services subscribed					Total	Percentage
	1 to 2	3 to 4	5 to 6	7 to 8	Above 8		
18 to 28	2	4	5	7	7	25	46.3
29 to 39	2	4	5	1	0	12	22.22
40 to 50	6	3	0	0	0	9	16.67
51 + years	6	2	0	0	0	8	14.81
Total	16	13	10	8	7	54	100

16 people were using 1 to 2 services and most of them were aged between 40 to 50. A total of 13 respondents were registered on 2 to 3 services and this was almost evenly shared between all age groups. 10 of them were registered on 5 to 6 digital platforms and these were from the ages of 18 to 28 and 29 to 39. 8 respondents who were mostly from ages 18 to 28 had 7 to 8 digital services. Lastly, 7 respondents had more than 8 services and were from ages 18 to 28.

Table 6: adoption of digital services between people with different levels of education

Education level	Number of digital services subscribed					Total	Percentage
	1 to 2	3 to 4	5 to 6	7 to 8	Above 8		
Primary	1	0	0	0	0	1	1.85
Secondary	5	3	0	0	0	8	14.82
Diploma	4	2	2	1	2	11	20.37
Degree +	6	8	8	7	5	34	62.96
Total	16	13	10	8	7	54	100

16 people had 1 to 2 services and all levels of education were fairly represented, 13 had 3 to 4 services and were those with at least secondary education and above, 10 respondents had 5 to 6 services and were those with some tertiary



education (diploma and degree level) and the same applied to 8 respondents who were registered on 7 to 8 digital platforms and the last 7 respondents as well who had more than 8 services.

Table 7: users for various digital services

Digital Channels	Number of users
ATM	50
POS	7
E-wallet	9
Internet banking	10
WhatsApp banking	9
Mobile banking	30
Eazy app	7
Bill payments	10

50 respondents indicated that they use the ATM, 30 used mobile banking, internet banking and bill payments had a frequency of 10 users each among the respondents, e-wallet and whatsapp banking scored 9 users each. So too with POS and Eazy application.

Table 8: satisfaction with various digital channels

Satisfaction level	Number of users	Percentage
Not satisfied	1	1.86
Satisfied	20	37.03
Very Satisfied	33	61.11
Total	54	100

33 respondents were very satisfied and another 20 agreed to this, representing a cumulative 98.14% (37.03% and 61.11%). Only 1.86% of the respondents was not satisfied.

Table 9: ease of transacting on digital services

Ease of transacting	Frequency	Percentage
Very difficult	0	0
Difficult	2	3.7
Not sure	2	3.7
Easy	20	37.04
Very Easy	30	55.56

30 respondents found it very easy to transact and another 20 agree to this representing a cumulative 93% (55.56% and 37.04%), 2 were not sure and another 2 respondents found it difficult to transact representing a 3.7% each.

Table 10: error messages when transacting

Frequency	I get error message		No error message	
	Rarely	30	55.56 %	15
Frequently	6	11.11 %		
More frequently	3	5.55 %		

15 respondents got no error message and another 30 respondents rarely get errors representing a cumulative 83.34% (27.78% and 55.56%), 6 said they frequently get errors when transacting representing 11.11% and the last 3 said they get the error more frequently representing 5.55%

Table 11: challenges to adoption of digital services

Challenge	Frequency
Distance between outlets	0
Transaction costs	0
Difficult in use of techs	10
Lack of interest	25
Security concerns	9
Lack of awareness	15

Lack of interest scored a highest frequency of 25, followed by lack awareness at 15, the difficulty in use of technologies was third with a frequency of 10, a frequency of 9 was for security concerns. Transaction costs and distance between outlets were not considered as obstacles and they had no score.

Table 12: accessibility of digital services

Level of accessibility	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Services are locally accessible	35	12	2	5	0
Services accessible 24/7	20	27	1	6	0
Easy to operate	38	14	0	2	0
Systems accessible 24/7	17	29	5	3	0
Fair charges	19	22	5	6	0

47 respondents (35 and 12) agreed that the digital services are locally accessible and only 5 disagreed while 2 were neutral. The 47 respondents also agreed that the services are accessible 24/7 while 6 disagreed and 1 was neutral. 52 (38 and 14) considered the services as easy to operate while 2 disagreed. 46 (17 and 29) respondents agreed that bank systems are available 24/7 while 3 disagreed and 5 were neutral. 41 (19 and 22) respondents agreed that the bank charges are fair while 6 disagreed and 5 were neutral.



Table 13: affordability of digital services

perceptions	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
High tariffs affect service adoption	5	12	2	20	15
Bank charges are fair	19	28	1	6	0
Services are cheap and easy to operate	30	14	4	6	0
Banks must reduce charges	7	10	15	21	1
Digital services reduce costs	30	16	0	6	2
I fail to transact due to high charges	0	2	5	34	13

17 (5 and 12) respondents agreed that service adoption is affected by high bank tariffs, 2 were neutral and the other 35 (20 and 15) disagreed. 47 (19 and 28) respondents agreed that bank charges were fair while 6 disagreed and 1 was neutral. 44 (30 and 14) respondents agreed that bank services were cheap and easy to operate while 6 disagreed and 4 were neutral. 17 (7 and 10) respondents would like the banks to reduce charges while 21 disagreed and 15 were neutral. 46 (30 and 16) respondents agreed that digital banking reduce their costs when banking while 8 disagreed. Lastly, only 2 respondents said they failed to transact due to high charges 5 were neutral and the other 47 (34 and 13) said they have never failed to transact due to high bank charges.

Table 14: number of ATMs, POS and agents for Blantyre branch

	2018	2019	2020	2021	2022
ATMs	5	6	6	8	8
POS terminals	10	15	18	22	30
Number of agents	9	14	20	25	35

Over the 5 years period, the branch increased its ATMs from 5 in 2018 to 8 in by 2021 and 2022. POS terminals increased from 10 in 2018 to 30 by 2022. Number of agents were also increased from 9 in 2018 to 35 by 2022.

Table 15: new customers and digital channels

	2018	2019	2020	2021	2022
New atm applications	503	547	630	1030	1504
POS terminals commissioned	10	5	3	4	8
Number of new agents	9	5	6	5	10
Internet banking customers	350	480	560	700	980
Number of closed accounts	30	21	45	14	12

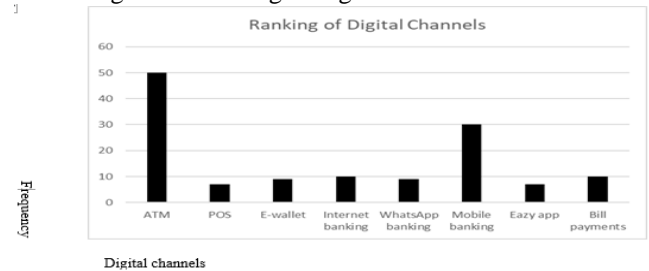
The table shows an increase in ATM applications by customers since 2018. POS commissioned increased. An increase in number of bank agents. An increase in number of internet banking customers. However, there was a reduction in number of accounts closed.

Table 16: bank profitability trend

	2018	2019	2020	2021	2022
Profit after tax	1.7 billion	4.46 billion	7.05 billion	7.6 billion	Financials not yet published
Return on Equity	15 %	33.23 %	37 %	33 %	

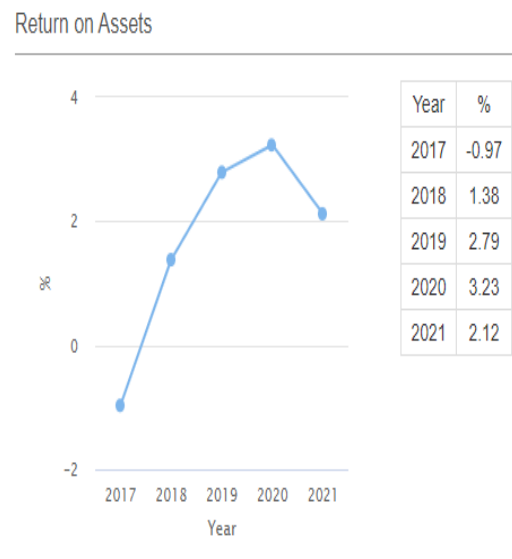
The bank's profitability increased from 1.7 billion kwacha in 2018 to 7.6 billion kwacha in 2022. The return on equity was favourable throughout.

Figure 1: Ranking of digital channels



The ATMs and mobile banking were favourite channels for the respondents. POS and Eazy applications were the least liked channels.

Figure 2: NBS bank return on assets



Source: www.thebankersdatabase.com

This indicate that the bank had favourable upward return on asset from 2017 to 2021.

V. SUMMARY OF RESEARCH FINDINGS

The study had a return rate of 90% which means out of the 60 respondents, 54 were responses were received and used in this study.

The gender distribution of the



respondents, indicate that more females are now banking which means more of them are now engaging in some form of economic activities. Their ages showed that the youth were many as well compared to other age groups. This is a positive sign in as far as women empowerment and youth development policies are concerned.

The data was further analysed to establish relationships between the five variables of the study as follows:

Based on the data from the 54 respondents, the study found that efficiency of digital services had a significant positive impact on customer satisfaction. 83.34% of the respondents agreed that digital banking services were almost error free and this motivates them to adopt and use such services. 93% of respondents indicated that the digital services were fast and easy to operate.

The research however, found no significant relationship between affordability of the digital services and customer satisfaction. 47 respondents out of 54 said that they have never failed to transact due to bank charges and they view the bank fees as minimal enough such that the cost would not affect their decision to adopt or use the digital services.

Accessibility was found to have a significant positive impact on customer satisfaction. 35 of the 54 respondents were of the view that the banks digital channels were locally accessible and this motivates them to adopt and use such services as this provide the customer the much-needed convenience when transacting.

Adaptability to digital services positively impacted the customer satisfaction. 47 of the 54 respondents agreed that services are locally available due to the increased digital presence of the bank. The bank has adopted state of art technologies which resulted in superior customer experience on all its digital platforms. As a result, the bank has experienced growth in number of new customers onboarded and a significant reduction of number of customers closing their accounts. It has also increased number of ATMs, POS terminals and agents.

On speed of transacting, the study found that 93% of the respondents were satisfied with the speed of transacting on the bank's digital channels and this attracts them to keep on using the digital services of the bank. The refunds in case of failed transaction were instant since the bank invested in technologies which auto reverses failed transactions.

Lastly the study revealed that digitization can help a bank attain a good return on equity and

return on assets. The study showed that NBS bank has been reporting favourable ROE and ROA since it embarked on the digital transformation drive. The profitability has been favourable throughout as well and the bank in general has experienced significant growth and positive ratings.

VI. RECOMMENDATIONS

Based on the findings, the study recommended the following:

The bank needs to invest in awareness campaigns. The study identified two key issues which affect adoption digital services i.e. lack of interest and lack of awareness. If proper information is disseminated more customers would adopt and use the digital services.

The bank needs to invest in robust systems to ensure zero or near zero downtimes and incidences of failed transactions or errors.

The bank needs to invest in ICT and cyber security systems to clear fears that some customers have regarding digital services.

Lastly, further studies in customer satisfaction are needed to fully understand the impact of current digital services and the evolving customer needs. This way gaps can be identified and resolved.

AREA FOR FURTHER STUDY

The current study should be expanded further in future in order to determine the impact of digitization on customer satisfaction and bank growth in other areas of Malawi and other countries as well because different areas experience different economic conditions. We therefore need to establish whether the explored factors can be generalized to all customers everywhere.

CONCLUSION

Based on the study findings, it is evident that most customers are used to ATMs and mobile banking. This is because ATMs were among the first digital services offered by banks in Malawi. The mobile banking is fast catching up with use of ATMs due to increased use of mobile phones by the population. The digital services are efficient, accessible, adaptable and the transaction speed is good for most customers. Affordability was found to be of a negligible impact on customer satisfaction. Lastly, digitization contributes to favourable return on equity and return on assets and profitability. This leads to growth in banking according to the results of this study at NBS bank.



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