



DIGITAL FINANCE IN ETHIOPIAN BANKING INDUSTRY

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Abstract

In 2001, the commercial bank of Ethiopia introduced an automatic teller machine (ATM), and now most of Ethiopian banks use many types of digital financing systems including ATMs. Cash is still the most dominant medium of exchange as electronic payment systems are at an infancy stage. The main objective of this study is to examine how digital finance transactions are used in Ethiopia. The specific objectives are to examine different digital finance services available in Ethiopia and identify the challenges faced by commercial banks and customers in digital finance in Ethiopia. To achieve this objective, data were collected from 256 customers from the 10 banks in the country and those bank managers too. Compared to the rest of the world, Ethiopia's digital banking system is still underdeveloped. Among African countries, Ethiopia is at the last level in the use of digital finance. This is why researchers who have done research before have come to the conclusion that digital financial services in Ethiopia are still in their infancy. An awareness gap between customer and government (NBE), network fragility, ATM machines frequently failing to function, frequent power interruptions, security issues, and poverty etc are some of the obstacles to the development of digital financial services. This study suggested that the government has to concentrate on enhancing network effectiveness, raising customer awareness, and being cautious about security concerns in order to expand digital financial services.

Key Word: Digital Finance, Banking Industry, Practice, Challenge and Prospect.

1. Introduction

The financial landscape in Ethiopia is undergoing a period of significant transformation with the rapid adoption of digital finance solutions and payment systems. This shift is being driven by technological advancements and an increasing demand for greater financial inclusion across the country (Zaki, M. 2019). Private sector players such as Dashen Bank and Zemen Bank, among others, have embraced these changes by integrating new technologies into their banking operations. This has resulted in the provision of e-commerce services, mobile merchant transactions, and fully IT-supported multi-channel banking services (Getahun, A. A. 2020).

The uptake of digital finance has the potential to significantly reduce costs for banks, as well as drive economic growth both directly and indirectly (Jiang Xiuxiu et al., 2021). Additionally, it has been instrumental in making financial services more accessible, affordable, and user-friendly. This has culminated in improving financial inclusion particularly for underprivileged communities in areas without adequate physical infrastructure (Kaicker et al., 2022).

Despite this progress, there remain some challenges that hinder the wide scale adoption of digital finance in Ethiopia. These include frequent network and internet disruptions, power outages, limited knowledge about avenues through which digital finance services can be accessed and the unavailability of ATMs and POS machines.

However, Ethiopian banks have responded proactively to these challenges by increasingly investing in digital finance services such as mobile banking, internet banking, card banking, and agent banking.



Notably, advancements in infrastructure and electronic information-based services spearheaded by various stakeholders including the National Bank of Ethiopia, EthioTelecom, and the Ethiopian Ministry of Innovation and Technology have also played a crucial role. They have contributed to a significant reduction in barriers to entry for FinTech businesses that offer complementary solutions. At present, five such businesses are operational in Ethiopia including Arifpay, BeCash, Kfya, Chapa, and Telbirr (LeandraMonteiro(2023).

This study highlights that for the government to implement effective digital finance reform, it is necessary to understand how people are using digital finance solutions and the difficulties they encounter. The key concepts are underlined in this study, which presents a compelling case for increased investment in digital finance infrastructure and financial literacy improvement initiatives.

2 Statement of the problem and Objectives

The financial landscape of Ethiopia is experiencing a paradigm shift, driven by technological advancements and an increasing demand for financial inclusion. This transformative shift is evidenced by recent developments such as the collaboration between The National Bank of Ethiopia and EthioTelecom, aimed at enhancing financial inclusion and network resiliency in the country's banking sector (Adugna, 2021). These developments align with the objectives of the Digital Ethiopia 2025 Strategy, which seeks to boost economic growth and reduce poverty through augmented access and utilization of digital financial services.

Financial institutions in Ethiopia are investing in state-of-the-art technological systems to enhance their operational capabilities and market competitiveness. Such efforts are driven by increased efficiency, greater convenience, and enhanced security, with a focus on driving sustainable growth in a digital-first world characterized by fierce competition for market share and profitability (Ethiopian Bankers Association, 2022).

Despite positive progress, cash transactions remain the dominant mode of financial exchange in Ethiopia. To tackle this trend, a comprehensive study has been conducted to identify key challenges and opportunities that can inform future efforts to promote digital finance and payment systems. For instance, by Birhanu B (2015) on e-banking services adoption, Teshome (2016) on mobile banking practices, and studies by Girma D (2016) and Bethelham (2018) on different aspects of digital banking performance and practices in the country, and Efforts towards digital finance implementation must address challenges effectively and leverage the full potential of digital finance for economic growth and development (Adugna 2021).

Therefore, this study aims to investigate the existing usage and practices of digital finance in Ethiopia, to identify challenges faced by both customers and service providers when adopting digital finance, and to explore prospects that can be leveraged for future growth and advancement of digital finance in the country. By proactively investigating this issue, the study seeks to contribute to ongoing efforts to modernize and transform Ethiopia's financial ecosystem, with the ultimate goal of fostering greater financial inclusion and economic prosperity for all. Based on this problem identified the following objectives:



Objectives

- I. To describe and differentiate different digital finance services available and practice in Ethiopian banking sector,
- II. To examine the major challenges faced by service provider in Ethiopia when adopting of digital finance,
- III. To determine the major challenges faced by bank customers in Ethiopia when using digital finance, and
- IV. To identify the prospect of digital finance in Ethiopia.

3. Literature Review

It offers a comprehensive overview of related literature and empirical data. It delves into the theoretical background of digital finance and outlines the processes involved in implementing it in accordance with financial institution standards.

3.1 Theoretical literature

Digital finance is becoming increasingly prevalent globally, including in Africa and Ethiopia. It involves using technology to facilitate financial transactions and services and comes with risks related to cyber security, data privacy, and regulations. Ethiopia's banking sector is working towards improving access to financial services and increasing participation in the digital economy through initiatives such as the National Digital Payment Strategy and the Digital Ethiopia 2025 Strategy. Despite progress, challenges such as frequent network and internet disruptions, lack of knowledge among users, and unavailability of ATMs and POS machines have hindered widespread adoption (BerhanuLakew, T., &Azadi, H. 2020).

Digital finance services in Ethiopia include mobile money, online banking, and card banking. Mobile money has rapidly gained popularity in the country, with CBE Birr being one of the largest mobile money services in Africa with over 6 million registered users. Other widely used mobile money services include Amole and Hello Cash. Online banking is also gaining momentum, enabling customers to access their bank accounts and perform transactions online. Several banks in Ethiopia offer online banking services, including Commercial Bank of Ethiopia (CBE), United Bank, Awash Bank, Wegagen Bank, Dashen Bank, and Abyssinia Bank.

3.2 Empirical literature

To comprehensively examine the state of digital finance in Ethiopia, the researcher in this study reviews existing literature on digital finance issues worldwide and contextualizes them in the Ethiopian banking sector. The analysis is divided into three distinct sections: practice, challenges, and prospects.

In terms of digital finance practice, Wang and Chen (2019) demonstrate that countries in Africa where digital payments and banking solutions are not widely disseminated are not viewed as suitable candidates for merchant payment suppliers. However,online banking services such as money transfer, balance inquiries, account transfer, account statement retrieval, and cash withdrawal at ATMs form part of Ethiopia's current digital finance practices. They suggest further research through surveys and interviews to evaluate the effectiveness of these practices and garner user feedback to improve digital finance offerings.



Challenges facing Ethiopia's digital finance sector are numerous and have been examined in a series of empirical studies by Chernet (2015), Ketterer (2017), and Teka & Sharma (2017). The challenges include concerns around security, limited infrastructure, low awareness levels and knowledge about digital finance channels, a deficient legal and regulatory framework for e-payments, and lack of competition among domestic and international financial institutions. Despite these challenges, the establishment of ET Switch and the introduction of Ethio Telecom's TeleBirr service offer hope of increased participation in the digital economy (Fetu, 2019).

Finally, the prospects for digital finance in Ethiopia are high given the country's growing banking sector, which is working to increase financial service access through initiatives such as the National Digital Payment Strategy and the Digital Ethiopia 2025 Strategy. Meaza (2016) posits that customers can now conduct banking transactions from the convenience of their homes, offices, or any other location using digital finance channels. Moreover, Purva et al. (2021) showed that financial inclusion in the digital age is positively correlated with economic growth.

According to Tinghua, Mengyuan, Ehsan, and Xiao's study in 2022, digital finance has a positive impact on the quality of economic growth over time. They developed an index system to test this impact and found that poor digital finance had a negative effect on economic growth quality. However, challenges such as limited infrastructure, low digital literacy, and concerns around security and regulatory frameworks must be addressed by collaboration between service providers, government institutions, and donors. Ultimately, further research is needed to evaluate the effectiveness of current digital finance practices and identify user needs.

4. Methodology

This study discusses the research approach, design, data collection, presentation, and analysis of a study on the adoption and availability of digital finance services in Ethiopian banks. The study employed both quantitative and qualitative research approaches to provide a comprehensive view of the digital finance landscape in Ethiopia. The research design used explanatory, descriptive, and mixed approaches to describe the current state of digital finance adoption in Ethiopia. Structured questionnaires and open-ended interviews were used to collect primary data from eleven selected bank managers and participants from various banks, while secondary data was obtained through an extensive literature review. The study aimed to analyze the customers of eleven Ethiopian commercial banks with respect to their use of digital finance services and utilized a randomly selected sample of external customers. Data were presented using tables and graphs, and quantitative and qualitative analytical procedures were employed to organize the collected data. Means, standard deviations, and percentages were provided for each questionnaire. **Sample Size Determination:** Although a sample of 270 people was selected for the study, only 256 or 95% of the target demographic of digital finance service users were reached. The study focused on individuals under the eleven banks in Addis Ababa. Almost all banks in Ethiopia now offer digital finance services, including mobile banking, internet or online banking, agent banking, and card banking. However, the usage rate varies between banks. It was observed that the selected banks had a higher level of digital finance usage compared to others.

5. Results and Discussion

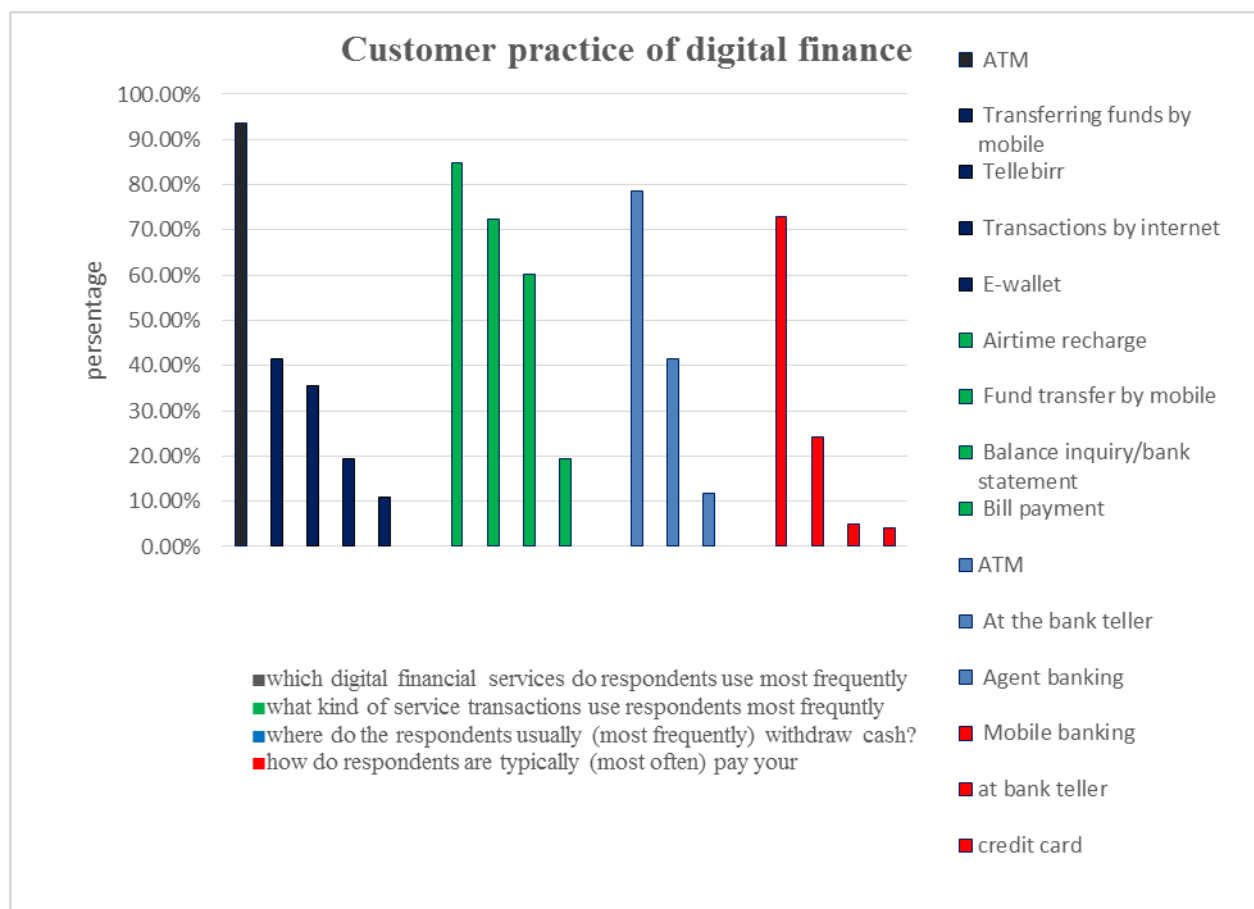
It provides information on the demographics, practices, and challenges faced by users of digital finance in Ethiopian banks. Out of 270 questionnaires distributed, 95% (256) of completed questionnaires were received for analysis, indicating a strong response rate. The study found that there is a high level of interest in digital finance from Ethiopian bank customers. However, certain



challenges exist, particularly amongst certain demographic groups. Improved communication and education on the benefits of digital financial services may be required to overcome such challenges. The study also reveals that digital finance adoption is largely driven by young adults, particularly those aged 26 to 35 years old with an average age of 31.33 years old. Additionally, the Commercial Bank of Ethiopia (CBE) has the highest percentage of participants (78.51%) in digital finance adoption, followed by Zemen Bank (29.69%). Such data offers valuable insights into digital finance's competitive landscape in Ethiopia.

5.1 Practice of digital finance with customer

The study showing that while the vast majority (93.75%) of respondents used ATMs and POS, fewer used other digital services like fund transfer by mobile (41.40%) and e-wallet (10.9%). Checking account balances and recharging airtime were the most frequently utilized transactions using digital finance, with respondents preferring to withdraw cash using ATMs followed by bank teller machines (41.41%). For bill payments, a high percentage of respondents (73.05%) still prefer to pay via cash, with only a small percentage using mobile banking or credit cards. The study suggests that while there is potential for greater digital payment uptake in Ethiopia, traditional users may need more time to adjust to the shift.



Source: own survey 2023



5.2 Practice of digital finance in the bank sector

In Ethiopia's banking sector, there has been a growth in digital finance practices, with mobile money services and online banking offerings becoming more widely available. While challenges such as low digital literacy, cyber security concerns, and limited access to devices exist, continued investment and support for digital financial services can lead to increased financial inclusion and secure transactions. Ethiopian banks have established independent digital finance departments with several subdivisions and the National Bank of Ethiopia has established regulations and strategies to facilitate the use of digital finance.

5.3 Digital financing service accessibility in Ethiopia's banking industry

The survey analyzed respondents' views on digital financial services provided by local banks in Ethiopia. The results show that mobile and internet banking services were found to be accessible and convenient by a majority of respondents. Additionally, digital finance services provided by commercial banks were perceived as available 24/7, and the majority of respondents agreed with this statement. However, the use of credit cards for travel and interoperable ATM cards were not widely adopted or favored by respondents. Telebirr, a cashless transaction method, was highly preferred by respondents, indicating a positive attitude towards mobile banking. Overall, ATM withdrawals remained a common practice among customers, and digital financial services require improved communication and education to ensure better adoption by the general public.

In this study, data was collected from respondents through questionnaires and analyzed using Stata software to gain insights into all banking activity. As per Zaidaton and Bagheri's (2009) criteria, scores between 1 and 1.80 are considered "strongly agree," 1.81 to 2.60 indicate "agree," 2.61 to 3.40 indicate "neutral agreement," 3.41 to 4.20 indicate "disagree," and 4.21 to 5.00 are considered "strongly disagree." Additionally, the standard deviation (SD) of the data indicates how spread out it is: high SD indicates a more dispersed distribution of data, while low SD indicates that the data is clustered around the mean.

Accessibility of digital finance in Ethiopia banking sector

S.No	Item		Frequency	%	Mean	SD
1	Mobile and online banking services make it easy for individuals to access digital financial services through their cell phones.	Strongly agree	76	29.69%	2.48	1.44
		Agree	93	36.33%		
		Natural	23	8.99%		
		Disagree	17	6.64%		
		strongly disagree	47	18.35%		
		Total	256	100%		
2	Digital finance Services of Ethiopian commercial Banks are convenient, because it is available 7 days a week and 24 hour a day ,to access my bank account	Strongly agree	49	19,14%	2.58	1.21
		Agree	103	40.23%		
		Natural	26	10.16%		
		Disagree	64	25%		
		strongly disagree	14	5,47%		
		Total	256	100%		



3	Travelers can make purchases without carrying cash by using a credit card.	Strongly agree	13	5.08%	3.88	1.05
		Agree	21	8.2%		
		Natural	24	9.37%		
		Disagree	126	49.22%		
		strongly disagree	72	28.13%		
		Total	256	100%		
4	If there have one ATM card for can withdraw of money from any of bank ATM machine. (interoperable)	Strongly agree	25	9.77%	2.82	0.98
		Agree	69	26.95%		
		Natural	104	40.63%		
		Disagree	48	18.75%		
		strongly disagree	10	3.90%		
		Total	256	100%		
5.	Mobile banking apps enable users to send or receive money and make purchases from participating merchants.	Strongly agree	4	1.56%	4.11	.87
		Agree	11	4.30%		
		Natural	33	12.89%		
		Disagree	116	45.31%		
		strongly disagree	92	35.94%		
		Total	256	100%		
6.	Telebir is the most prefer to use cashless transactions.	Strongly agree	74	28.90%	2.21	1.09
		Agree	101	39.45%		
		Natural	51	19.92%		
		Disagree	18	7.03%		
		strongly disagree	12	4.69%		
		Total	256	100%		

Source: Research survey 2023

With respect to the first item listed in above table, which pertains to respondents' experiences using mobile and internet banking services provided by local banks, the findings suggest that a significant majority of respondents found such services to be both accessible and convenient. This is evidenced by the notable agreement expressed by 93 (36.33%) respondents who agreed, and an additional 76 (29.69%) who strongly agreed with the statement. Furthermore, the mean value of 2.48 coupled with the standard deviation of 1.44 provided a valuable context in highlighting the degree of agreement among the sample. Though most respondents did express agreement with the statement, there was nonetheless some variation observed within the sample population.

For the second item in table, which discusses the convenience of digital finance services in Ethiopian commercial banks due to their availability 24/7, the results indicate a relatively high degree of agreement among respondents. With 103 individuals agreeing and strongly agreeing, comprising 40.23% and 19.14% of respondents respectively, a total of 57.03% of respondents expressed agreement towards this statement. Additionally, with a mean value of 2.58 and a low standard



deviation value of 1.21, the results suggest that this view is widely held and there is little variation in terms of agreement among the sample.

In reference to table item number 3, which posed the statement that credit cards could be used by buyers to facilitate travel without the need to carry cash, it can be observed that the results indicate a noteworthy incidence of disagreement among respondents. Specifically, 126 participants- comprising 49.22% of respondents - expressed disagreement with this statement, while an additional 72 participants or 28.13% of total respondents gave a strong negative response. With a mean value of 3.88 and a standard deviation of 1.05, the data further illustrate the degree of disagreement maintained by most survey participants in relation to the feasibility of using credit cards as an alternative to carrying cash while traveling.

In the above table question number 4, the respondents can withdraw money from any bank ATM machine with one ATM card (interoperable). The level of agreement of respondents indicates that the majority, which is 104 (40.63%), said neutrally. The mean result is also supported by a mean value of 2.81. Because interoperable is a new idea, the idea is that of an Eth switch. As it is known, Eth Switch was introduced in Ethiopia in 2016, so the bank managers I interviewed told me that it was not well received by the customer.

With regard to question number 5 as presented in the above table, which inquires about respondents' perceptions regarding the ability to withdraw money from any bank ATM machine using an interoperable ATM card, it can be inferred that the results reflect a mixed response. Specifically, a majority of 104 respondents, comprising 40.63% of participants, indicated a neutral stance towards the statement. With a mean value of 2.81, this data provides adequate context for interpreting the mixed response. Notably, the introduction of interoperability in Ethiopia via Eth Switch, a relatively new concept implemented in 2016, may have not played a role in shaping customer attitudes towards this convenience. In interviews with bank managers, it was reported that the concept had not been widely received by customers.

As per the data presented in item number 6 of the aforementioned table, the majority of respondents have expressed agreement towards the use of Telebirr as their preferred cashless transaction method. Specifically, 101 (39.45%) respondents agree, while 74 (28.90%) strongly agree. The combined number of responses, amounting to 175 (68.36%), indicate a favorable view towards Telebirr. The mean result of 2.2 and the 1.08 standard deviation value further support this sentiment, reflecting a majority agreement with the proposed cashless transaction system.

The survey results indicate that mobile banking, particularly Telebirr, is a preferred choice for cashless transactions, while ATM withdrawals have become a common practice among customers. However, credit cards and ATM cards that allow customers to withdraw funds from any bank ATM machine (Interoperable) are sparsely utilized, with only a few respondents acknowledging knowledge or usage of these applications. As such, these tools remain unfamiliar and underutilized among the majority of customers.

5.4 Challenges faced by bank customers.

Bank tellers were found to be more reliable for cash withdrawals compared to ATMs, based on the responses of 218 out of 256 participants. Majority of respondents disagreed with the notion that having necessary knowledge is required to use digital finance. Poor internet connectivity leads to customers



spending a lot of time in lining at banks, as agreed by 96.09% of respondents. Power interruptions and security concerns were identified as challenges that impact the use of digital financial services, with 96.09% of respondents agreeing or strongly agreeing. Majority of respondents carry cash due to lack of digital payment options among sellers in markets. Majority of respondents agreed that digital banking is a convenient and secure way to manage finances despite concerns on potential fraud. Overall, these challenges are significant obstacles for bank customers in Ethiopia and require attention from the banking sector to improve the overall banking experience.

Furthermore, buyers and sellers alike reported issues with delayed confirmation messages during transactions -- another hindrance that needs to be addressed by the banking sector. It is, therefore, crucial for Ethiopia's banking industry to prioritize improving its digital banking experiences and take meaningful steps to overcome these challenges -- this will not only advance access to financial services for customers, but it will also bring us closer to a more modern and inclusive financial system throughout the country.

5.5 Challenge faced by service provider

Despite the promising outlook for digital financial services in Ethiopia, service providers still face significant challenges in implementing new technology. According to interviews and questionnaires conducted with bank managers and employees, the quality of the national network represents the primary challenge that hinders the adoption of technology. The deployment of new technologies is costly and requires a fast and reliable network with stable internet connectivity. However, due to ongoing instability and conflict within the country, interruptions to the national network occur frequently, posing a significant challenge to both the growing digital industry and the national economy alike.

Moreover, a severe scarcity of experienced technology professionals amplifies these obstacles by hampering efforts to both implement and explain new technologies to the public. In addition, there is a lack of awareness, knowledge, and public trust towards digital financial services in Ethiopia which further limits adoption among the general public. The combination of these contributing factors creates a challenging set of hurdles for service providers operating in Ethiopia's banking sector, which must be addressed in order to realize the full potential of digital financial services in Ethiopia.

5.6 Responses from the concerned parties

After perceiving the challenges facing service providers and their customers in regard to digital finance in Ethiopia, the researchers sought to inquire about how pertinent parties, namely the National Bank of Ethiopia and EthioTelecom, are addressing these issues. Upon inquiry, the following response was provided with regard to actions being taken to mitigate these challenges.

The National Bank of Ethiopia has recognized the importance of improving digital finance services in the country and is taking steps to address the challenges faced by banks and customers. One initiative is the implementation of a national payment system, which aims to facilitate electronic payments and improve financial inclusion. The central bank is also working to improve financial literacy among the population through various educational programs and initiatives. Additionally, the government is investing in infrastructure development, such as expanding access to electricity and internet connectivity, which are essential for the development of digital finance services. These initiatives align with the national development priorities outlined in the Ethiopia Digital Financial Services Strategy,



which seeks to increase access and usage of digital financial services to promote economic growth and reduce poverty.

EthioTelecom is the largest telecommunications company in Ethiopia and has a vital role in improving the country's digital finance system. One of its key initiatives to address network fragility is to expand the physical infrastructure of the telecommunication network by building new cell towers and improving connectivity in underserved areas. Additionally, EthioTelecom is investing in the deployment of 4G technology across the country, which provides faster internet connectivity and can improve access to digital finance services. The company is also working with other stakeholders in the telecommunications sector to develop policies that encourage innovation and competition, as well as better coordination to improve service delivery. Furthermore, EthioTelecom has implemented several measures to enhance network resiliency to natural disasters and political instability, such as building backup power systems and strengthening its disaster management plans. These initiatives align with Ethiopia's national development priorities under the Digital Ethiopia 2025 Strategy, which aims to increase internet penetration and improve connectivity across the country to support the development of digital finance services.

5.7 Prospect of digital finance

According to survey on “Prospect of digital finance” in Ethiopia, there is a growing level of satisfaction with digital finance services among bank customers. The majority of respondents reported being satisfied with these services and finding them valuable for managing their finances. Digital finance practices can increase productivity in the banking industry and enable a broader reach across larger geographic areas. Furthermore, there is consensus that digital financial services enhance financial security and reduce physical visits to banking halls. Overall, this positive response suggests that users of digital financial services will continue to intensify their use of such services in Ethiopia.

Prospect of digital finance

S.no	Item		Frequency	%	Mean	SD
1	There is level of satisfaction with digital finance services is increasing from time to time.	Strongly agree	114	44.53%	1.73	0.88
		Agree	120	46.88%		
		Natural	4	1.56%		
		disagree	14	5.47%		
		strongly disagree	4	1.56%		
		Total	256	100%		
2	Digital financial services enable individuals to effectively manage their financial affairs.	Strongly agree	102	39.84%	1.77	0.84
		Agree	128	50%		
		Natural	16	6.25%		
		disagree	4	1.56%		
		strongly disagree	6	2.34%		
		Total	256	100%		
3	There is increase a productivity of bank, When using Digital finance well.	Strongly agree	96	37.50%	1.80	0.71
		Agree	116	45.31%		
		Natural	44	17.19%		



		disagree	0	0%		
		strongly disagree	0	0%		
		Total	256	100%		
4	With digital financing services, it is possible to cover a wide geographic area.	Strongly agree	58	22.66%	2.12	0.97
		Agree	148	57.81%		
		Natural	24	9.38%		
		disagree	16	6.25%		
		strongly disagree	10	3.90%		
		Total	256	100%		
5	Digital finance is get money secure	Strongly agree	98	38.28%	1.76	0.73
		Agree	127	49.61%		
		Natural	26	10.16%		
		disagree	4	1.56%		
		strongly disagree	1	0.39%		
		Total	256	100%		
6	When the user of digital finance increases, Reduce number of customers comes to the banking hall.	Strongly agree	84	32.81%	1.82	0.72
		Agree	145	56.64%		
		Natural	19	7.42%		
		disagree	8	3.13%		
		strongly disagree	0	0%		
		Total	256	100%		
7	Using digital finance services helps to perform transaction at lower cost.	Strongly agree	62	24.22%	2.08	0.84
		Agree	130	50.78%		
		Natural	53	3.13%		
		disagree	8	3.13%		
		strongly disagree	3	1.17%		
		Total	256	100%		

Source: Research survey 2023

Based on the survey data, it appears that the level of satisfaction with digital finance services is on the rise. Specifically, when asked about their level of agreement, 120 participants (46.88%) responded with agreement while 114 participants (44.53%) strongly agreed, resulting in a total of 234 participants (91.40%) indicating agreement to some degree. The mean and standard deviation values calculated using Stata software also support this trend, with a mean score of 1.73 and a standard deviation of 0.88. These findings suggest that the majority of respondents are generally satisfied with digital financial services and view them as a valuable tool for managing their finances.

The survey results show that adopting digital finance practices can greatly aid individuals in managing their finances in a more successful manner. Over 89% of respondents agreed with this statement, with a majority of 50% outright agreeing and an additional 39.84% strongly agreeing. These results are



supported by the mean result of 1.77 and standard deviation of 0.83 for all responses received, indicating a clear trend toward satisfaction with digital finance services. Despite any challenges that may arise with adoption and implementation, it is clear that the convenience and security offered by digital banking are resonating with customers in Ethiopia.

Based on the findings in the table, it is evident that utilizing digital finance services can contribute to an increase in banking productivity. Over 82% of respondents indicated agreement with this statement, with a majority of 45.31% agreeing and an additional 37.50% strongly agreeing. These results are well supported by the mean of 1.80 and standard deviation of 0.71, which further confirm this trend of increased productivity. While challenges to implementing digital finance practices may arise, it is clear that there is potential for tangible benefits to be reaped by banks and financial institutions in adopting these technologies.

The data presented in the table indicates that digital financing services enable a broader reach across larger geographic areas. A sizable majority of respondents, totaling 80.46%, agreed with this proposition, including 57.81% who agreed and an additional 22.66% who strongly agreed. This trend towards agreement is further supported by the mean and standard deviation results of 2.13 and 0.97, respectively.

Digital finance is getting money secure, From the above table item number 5, the majority of the respondent agree on this item which is 127 (49.61%) agree and 98(38.28%) disagree. Mean and standard deviation of 1.76 and 0.72 respectively also supported this item.

The above table indicates that when the user of digital finance increases, reduces the number of customers who come to the banking hall. Most of the respondents agree, which are 145 (56.64%) agree and 84 (32.82%) strongly agree. Of the total respondents, 229 (89.45 %) agreed on it. The mean result is also 1.81 and the standard deviation is 0.72, which is highly near to the agreement level.

And Bank managers in Ethiopia recognize the potential of digital finance to contribute to economic growth, expand access to public services, reduce unemployment, and improve quality of life. There is a shift in activity and strategy in the financial sector toward accepting and advancing digitalization. In a related development, Safaricom M-Pesa Mobile Financial Services Plc has gained approval for a mobile money service license from the National Bank of Ethiopia, which is expected to advance digital finance as a prospect. As the sole integrated telecommunications service provider in Ethiopia offering internet, mobile communications, and telephony services, Ethio-telcom is an important part of this movement.

6. Conclusion and Recommendations

This study underscores the need for continued efforts to promote greater digital financial literacy and inclusion across the population. The study reveals that while many Ethiopians utilize ATMs for the withdrawal of money, few use other digital services such as e-wallets, paying bills, purchase by credit cards, and fund transfers by mobile. To promote greater adoption of these valuable services, investment in infrastructure is needed for improve network resiliency and establish strong relationships with local communities for foster trust and awareness. The National Bank of Ethiopia has implemented regulations and strategies aimed at promoting digital finance practices, but sustained investment and support will be necessary to achieve the goal of improving financial literacy and promoting financial inclusion across Ethiopia's population.



Survey of this study identified several key challenges that currently hinder access to these services. These include poor network efficiency, a lack of internet connectivity, power outages, security concerns, and Delayed confirmation messages during transactions also factor into an overall lackluster user experience. To fully realize the potential of digital financial services in Ethiopia, the banking industry must prioritize initiatives aimed at improving the quality of the national network, fostering greater awareness and trust in digital financial services among the public, and investing in the necessary infrastructure to support these technologies. Additionally, recruiting and training experienced technology professionals will be crucial for successfully implementing new technologies and improving the overall user experience. Despite these challenges, the researcher believes that the continued investment and dedication of all stakeholders involved will lead to a more modern and inclusive financial system throughout Ethiopia.

Overall, the study concludes that the adoption of digital financing has a positive significant impact on economic growth in Ethiopia and that all stakeholders have the potential to contribute to the country's digitalization efforts in the future.

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