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Realities of Digital Technology Adoption Impacts on the Financial Sectors of Developing Economies

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ABSTRACT

The advancement of digital technology in the financial sector has changed operations, with developing economies witnessing a huge impact of the rapid advancement of digital technology in the financial sector. However, not much literature on the old and new realities of digital financial technology on the financial sector of developing economies exist. This study is conducted to provide an understanding of the old and new realities of digital technology advancements impacts on developing economies financial sectors. The study employs both qualitative and quantitative research methods. Five (N-5) commercial financial institutions in Ghana made up of 400 samples were selected, and bootstrapping was carried out, weighing every 400 cases (the critical value taken was $t = 1.95$ and a p -value < 0.05) to guarantee the statistical weight of the SartPLS. The reliability of the indicators was assessed by the statistical significance of the standardized factorial loadings. The outer loadings were in the range of 0.40 to 0.60 should be excluded, and the evaluation should be higher than 0.70, indicating a compounded reliability increase. The compound reliability is the alternative to Cronbach's alpha, and as a common rule, the score obtained should be expected to be higher than 0.70. The study results showed that government's continuous dominance in the financial sector of developing economies remain strong. Also, leveraging digital technology would capacitate developing economies to take advantage of opportunities in the global financial market to achieve a guarantee sustainable financial sector growth and development.

INTRODUCTION

The advancement of digital technology in the finance sector and enhanced the financial knowledge of customers and users of financial information and products (OECD, 2020). Among the digital technology innovations that have dominated the financial sector of developing economies is digital payment, which helps to promote financial inclusion and financial wellbeing. Digital technology also affects all aspects of economic activity and demands economic rethinking to promote the use of contactless and digital payments (Optimus, 2022). Also, digital savings are gaining momentum in the financial sector of developing economies. Governments of developing economies are constantly seeking to promote access to the internet and technology (mobile phones, etc.) to assist in the provision of digital financial services to promote financial inclusion and the delivery of low-priced financial services to help bring the poor into the formal economy (Ozili, 2018). Also, scholars most including Sun *et al.* (2023), and McKnight *et al.* (2020) have indicated that the current advancement of digital technology in the financial sector is promoting, financial wellbeing, digital financial literacy, digital credit, and digital financial resilience. Digital technology dominates the financial sector of developed economies (Xu *et al.*, 2024). However, developing economies have equally witnessed a rapid advancement of digital technology in the financial sector, therefore this study believes that gaining an understanding of digital technology

advancements in developing economies financial sectors is very crucial (Yassine *et al.* 2024; Arizala *et al.* (2021). Accordingly, David (2018) indicated that a common feature of developing economies including Ghana is high potential for growth, high market volatility, low-middle income per capita, investment potential, low capacity to maintain sustained strong growth and production of higher-value-added goods.

Ghana is touted as one of the world's leading developing economies, with a population of over 24 million, and is considered the centre of Africa's struggle for independence in the 1950s (Nambware, 2023). Ghana's financial sector development stems from the 1950s. Before 1985, the financial system in Ghana changed and grew invariably because of the creation of specialized financial institutions by the government as an intervention to serve the officially perceived demands of distinct economic groups. In 1953, the Ghana Commercial Bank was established to complement what was regarded as the inadequate lending policies of the two earlier established foreign financial institutions, whose focus was to provide financial services to well-established foreign firms in the granting of loans. Unfortunately, indigenous farmers and small entrepreneurs were not the priority of those foreign financial institutions, hence the government decision to set up a national bank considered to be economically desirable (Aryeetey, 1996). Also, various development financial institutions, including the National Investment Bank, the Bank for Housing and Construction, and the

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Agricultural Development Bank, were set up to meet the specific financing needs of some sectors between the 1960s and 1970s. However, in the 1970s, Co-operative Bank, Credit Bank, Social Unit Rural Bank, and National Savings Security Bank were also created by the government as small borrowers grew. By 1990, a formal financial system had been created in Ghana, comprising the central bank (Bank of Ghana), three development financial institutions, and four commercial financial institutions. In addition, cooperative movements, Post Office Savings Bank, and about 124 rural financial institutions were recorded in Ghana (Aryeetey *et al.*, 1993; Bank of Ghana, 1994).

The financial services sector in Ghana is comprised mainly of the insurance, banking, and capital markets. The sector is regulated by four major regulatory bodies: the Bank of Ghana (BoG), the National Insurance Commission (NIC), the National Pensions Regulatory Authority (NPRA), and the Securities and Exchange Commission (SEC). The financial sector of Ghana is dominated by financial institutions, and the sector is well-structured and has promoted development, steady reforms, and growth. However, there are inherent risks in the operations of financial institutions, in the structure of their balance sheets, and in their profit and loss accounts. For instance, commercial financial institutions in Ghana are highly exposed to credit risk because lending accounts for the bulk of their assets, and it has grown in an environment of weak credit risk management and enforcement of creditor rights. Also, governments dominate economic activity, causing weakness in fiscal management and an increase in vulnerabilities in the banking sector. Additionally, small and medium enterprises (SMEs) rely heavily on business from the government, leading to the accumulation of payment arrears to contractors and other service providers by the government, which affects the capacity of borrowers to service their bank loans. Also, the share of the market of the five largest financial institutions declined from 61 percent at the end of 2005 to 46 percent at the end of 2010 (IMF, 2011; Nambware, 2023).

Typically, financial institutions dominate the financial systems in developing economies, and bank deposits constitute the most important form of household savings, whereas bank credits such as short- and long-term loans are the most important external source of financing for businesses (Weisbrod, 1995). In addition, the financial systems of developing economies tend to exhibit greater fragility than those of developed economies. Not only does this fragility affect the overall performance of the economy, but it also causes microeconomic inefficiencies in savings and investment and subsequently limits economic growth. In addition, the fragility of the financial sector also affects the effectiveness and efficiency of the functioning of the payments system, which leads to high transaction costs and reduced capital productivity, which has the potential to deepen a macroeconomic crisis (Zahler, 1999). However, this study had expected the current digital technology evolutions in the financial

sector of developing economies to overcome the many challenges that affected the sector in the 1990s. Unfortunately, this is not the case, as USDT (2023) has noted that the financial sector of most developing economies, especially those in sub-Saharan African countries, faces many challenges, including operating with a strong degree of government ownership or control, weak bank supervision, inadequate enforcement tools, low management standards, and inadequate financial market size. In addition, the financial sector of the emerging economy is faced with the challenge of adopting digital technology, low levels of formal financial services, low financial literacy, and poorly developed technology (ILO, 2022). Further, the IMF (2011) noted that there are inherent risks in the operations of financial institutions due to their exposure to high credit risk. Also, governments dominate economic activity in the financial sector of most developing economies, creating weaknesses in fiscal management and increasing vulnerabilities in the banking sector. Additionally, the financial sector of most developing economies tends to suffer heavily in times of unfavourable government economic reform policies. According to Ahinsah-Wobil (2023), the 2022 financial statements of the majority of financial institutions in Ghana recorded losses, causing much concern and speculation about the future of these financial institutions in the coming years. This is believed to be the cause of the Domestic Debt Exchange Programme (DDEP) of the Ghana government, which has impacted negatively on their profitability position. The DDEP program was introduced in 2022 to manage the country's domestic debt. It is in line with the identified features of the financial sector of the developing economies that this study is conducted to provide a deeper understanding of the characteristics of the financial sector of the emerging market. To achieve this, the study establishes the old and new realities of the financial sector of developing economies, analyzes technology impacts on the financial sector of emerging markets, and develops a model on how capitalizing on technology can help developing economies grow their financial sector and promote financial inclusion.

LITERATURE REVIEW

Technology evolution in the financial sector of most developing economies has brought about a complete paradigm shift in the functioning, product development, and service delivery. Formally, customers needing financial services or products from financial institutions in developing economies were required to visit the bank. Presently, technology is not only an enabler but also a service driver. The rapid growth of mobile phones, telecommunications, and the internet has added a new dimension to the financial sector of emerging markets. According to Mohideen *et al.* (2018), technology has transformed the global economy, making it easier to transfer knowledge, allowing emerging markets, in some cases, to be more agile and innovative than

developed economies, and giving developing economies a competitive advantage. Mohideen *et al.* (2018) further noted that technology has moved from being a challenge to being a critical enabler that presents opportunities to address the challenges that many industries face, creating the opportunity to and the ability to work in real-time, at scale, and at near-zero marginal cost. Also, global connectivity has been digital technology advancement. In addition, most developing economies in African has over 73% of its population using mobile phones to perform over 300 million financial transactions daily (OECE, 2022). However, there fear is that digital technology could heighten existing inequalities in developing economies (OECD, 2021).

Although digital technology advancement has changed activities in the financial sector, its core activities and objective have not changed (Bernanke, 2013). Through the financial sector, developing economies can informally or formally shift or spread the financial consequences of specific risks from one party to another by enabling governments, communities, households, and enterprises to obtain resources from the other party when the need arises in exchange for social or financial benefits (UNDRR, 2017). Additionally, the financial sector promotes value exchange in developing economies through the provision of a safe and efficient payment system, which is essential to supporting the day-to-day economic activities of all developing economies. In 2020 alone, Ghana recorded approximately over \$4697 million in direct credit transactions, including transactions in financial assets, non-cash, and cash payments (BoG, 2020). Ensuring the liquidity of developing economies is very crucial, and this can only be achieved through an efficient financial market system. It is important to note that the financial sector is the major provider of liquidity to businesses, individuals, and governments and helps to convert assets into cash without undue loss of value (RBoA, 2014).

Understanding the financial sector of developing economies is very important in this study. The financial sector of developing economies is considered the set of instruments, institutions, markets, and the legal and regulatory framework that allows for transactions to be made by extending credit (World Bank, 2016). Fundamentally, the financial sector plays a key role in every economy, especially developing economies, by promoting economic growth and improvement in macroeconomic conditions by providing financial services, promoting foreign direct investment, and conserving financial stability (Saïd, 1994). However, according to López *et al.* (2012), developing economies tend to experience rapid growth but show signs of volatility, including those of African, certain Asian, and Latin American countries. In addition, the financial sector of developing economies is experiencing cutting-edge technologies such as artificial intelligence and machine learning, as well as the rapid expansion of FinTech and BigTech that has accelerated the digitalization of financial services. These cutting-edge technologies have affected three areas of the

financial sector: disruption of payment systems due to the emergence of digital currencies, with a particular focus on central bank digital currency; electrification of securities trading and its effect on trading costs and market quality; and the benefits and risks of the use of massive data for the provision of financial services (Xavier, 2022).

However, the significant role of digital technology in aiding developing economies to deal with the volatile nature of their financial sector cannot be overemphasized. ILO (2022) believes that promoting technology in the finance sector, such as the use of digital finance, creates opportunities to develop better financial products and banking services for consumers, including new ways of channeling funding to businesses, promotes financial inclusion, supports economic recovery, and enables structural improvement and the transition towards a green economy. Also, Ravikumar *et al.* (2022) noted that digital technology foster collective financial inclusion and promote all-inclusive financial access. While analysing the significance of digital technology in the financial sector, it is important to note many different contexts providing new innovative products and services using contemporary technologies characterise the rapid growth of financial technology. This has led to the widely directions and magnitudes of the services and products delivered by fintech firms (Alt *et al.*, 2018). Whereas are some scholars focus on the diffusion and adoption of fintech products and services others tend to focus on what happens behind scenes. However, none of these seemingly odds can change what lies beneath the magic of financial technology innovations, if anything, it would only deepen understanding, impact, appreciation and educate us on technological developments (Dranev *et al.*, 2019).

Through empirical observation, digital financial technology comprises of different levels. Pousttchi *et al.* (2018) noted that a change financial technology induces impacts that focus on internal business processes through to adopting a customer-centric perspective in a business organization. Also, business network level of financial technology tends to focus more on business networked with specialized external partners and induces competition that are more intense with lower margin. Coupled with the global traditional financial services sector, the financial technology competitive landscape includes lateral entrants and new start-ups, which feature distinct corporate cultures other than traditional financial services institutions (Gomber *et al.* 2017; Gimpel *et al.* 2018). With regards to the external organization level, government regulation on financial technology changes from varying impacts and stages including less supervision, lower equity compliance, and extreme protection from national legislation towards severer rules for held equity, less protection offered by national laws, and more supervision on world-wide level (Arner *et al.*, 2017). Digital infrastructure widespread application allows cost-efficient operations, including

moving towards cashless societies and working on a fully decentralized basis on payments, financing, and investment activities. The relevance of regulatory and compliance issues in the financial industry necessitates a combination of regulation and technology to prescribe the application and use of technology in reporting, monitoring, and regulatory (Deloitte, 2016). To highlight the traditional banking business within the current digital financial technology era, some scholars have resorted to

using the term Bank Technology (Schwab & Guibaud, 2016). However, despite the technologies and innovations happening in the financial sector, it admittedly that the old and new realities of financial technology impacts on the financial sector of developing economies have not gained broad attention. In this regard this study appreciates the need to explore the topic to promote sustainable financial sector growth and development through digital financial technologies as shown in the model in Figure 1.

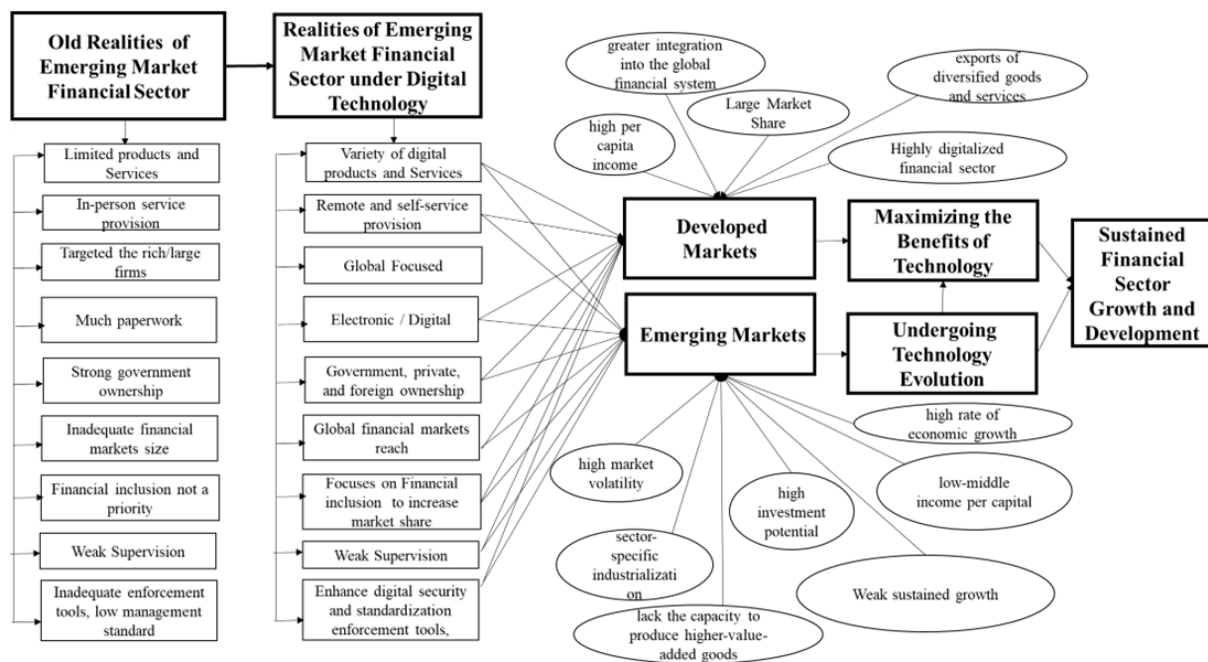


Figure 1: Sustainable Financial sector growth and development
 Source: adopted from Asare et al. (2023).

Figure 1 above presents the conceptual framework of the study, which shows the interconnection between the old and new realities of the financial sector of developing economies and the impact of technological evolution on the financial sector of emerging markets.

MATERIALS AND METHODS

Most authors have applied quantitative and qualitative research method and survey to analyse the impact of technological on the financial sector of developing economies (Zhu et al., 2023; Akomea-Frimpong et al., 2022; Appiahene et al., 2019). A qualitative study by PwC (2023) showed that financial institutions that adapt digital technology experience significant profitability and can take advantage both favourable and unfavourable economic conditions. However, using only quantitative methods to assess digital technological impact on the financial sector can be describe as parametric as it lacks the ability to provide qualitative insights (Turner, 2000). In addition, the SmartPLS was used indicate the linkages between the characteristics digital technologies and financial sector. A simple random sampling was used to select five (N-5) commercial financial institutions (Ghana Commercial Bank (GCB), Agriculture Development Bank (ADB),

National Investment Bank (NIB), Absa Bank, and Fidelity Bank) that dominate the financial sector of the Ghanaian market. These financial institutions were chosen because their share characteristic is a representation of all the other financial institutions in Ghana, and they also dominate the financial sector of Ghana’s emerging market. The study observed that the factors and variables identified and used to develop the model in Figure 1 are typical features of the selected financial institutions. Although these factors were identified through a literature review, they turned out to be the realities of the selected financial institution after analysis of the survey responses received from those financial institutions.

RESULTS AND DISCUSSIONS

The model in Figure 1 is based on Smart PLS 3.0 modeling to allow for molds about data distributions (Ringle et al., 2015). According to Richter et al. (2016), for suitability in the analysis of various factors, it is adequate to estimate the constructs of hidden variables in paths created in models. Also, the aims of the study are supported by a model to help in determining the new and old realities of the financial sector in developing economies by explaining the variance of the constructs. 400 samples were selected,

Table 1: Correlation results of Developing Economies Variables

	Variables	1	2	3	4	5	6	7	8	9	10	11	12
Control													
1	Government Policies	0.72											
2	Private-foreign Investors	0.11	0.10										
3	Security and Enforcement tools	0.14	0.13	0.16									
Predictors													
4	Financial Products and Services	0.17	0.01	0.18	0.73								
5	Technology	0.13	0.11	0.21	0.22	0.77							
6	Medium of transacting	0.041	-0.03	0.93	0.02	0.08	0.66						
7	Supervision and Control	0.42	-0.02	0.33	0.20	0.14	0.72	0.80					
8	Market size and focus	0.38	0.03	0.32	0.40	0.34	0.18	0.41	0.82				
Results													
9	Digital financial products	0.37	-0.11	0.34	0.23	0.29	0.16	0.43	0.69	0.78			
10	Global Reach/Market	0.24	0.21	0.39	0.20	0.14	0.82	0.37	0.78	0.82	0.98		
11	Financial Self- service / inclusion	0.37	0.37	0.41	0.27	0.23	0.18	0.40	0.79	0.12	0.98	0.94	
12	Sustained Market growth	0.35	-0.12	0.45	0.12	0.28	0.28	0.33	0.29	0.51	0.87	0.46	0.98

Note: N = 400 (p < 0.05; p < 0.0).

and bootstrapping was carried out, weighing every 400 cases (the critical value taken was $t = 1.95$ and a p -value < 0.05) to guarantee the statistical weight of the SartPLS. The latent endogenous variables are obtained from the indicators of the observed item scores. Table 1 shows the correlation results.

The study results show strong associations between variable (1 and 2) private-foreign investment and government policies. This finding confirms the result found in the literature that indicates that policies of government significantly impact foreign and private investment, with favourable policies including economic stability, trusted legal frameworks generally aiding more investment, while harsh policies in most cases can deter investment (Morrissey *et al.*, 2012). Also, the study noted that financial inclusion correlation with government policy (variable 1 and 11). Similarly, Tran *et al.* (2023) noted that a contrary's financial inclusion increases financial instability and recommends that economies must have financial inclusion and monetary policy to promote financial stability. In addition, the study results indicate that global reach /market has association with government policy, that is variables 10 and 1. In the same vein literature has shown that trade openness benefits country's business owners' income as welfare-state policy tend to support the income group that is politically dominant (Razin, 2022). Also, technology is found to correlate with digital financial products variables (5 and 9). This result of the study reveals that advancement in technology drives digital financial products introduction in the financial sector of developing economies. Similarly,

Al-Smadi (2023) noted that technology promotes electronic financial products and services, including payment, investment, insurance, financing, and financial information sharing over digital channels. There is a significant investment on the introduction of financial technologies in the banking industry in developing countries to achieve financial inclusion. Also, digital financial products including mobile banking, ATM, and POS, are found to have significant positive impact on financial inclusion (Menza *et al.*, 2024).

The study results further noted that medium of transaction (variable 3) have strong association with all the variables. The includes electronic financial transactions methods used to facilitate the transfer of value including credit/debit cards, online banking, mobile wallets, other than physical checks or cash. Most common examples of medium of digital transactions are credit/debit, mobile wallets, online UPI (unified payments interface) electronic funds transfer (EFT), NEFT (national electronic funds transfer), IMPS (immediate payment service), Aadhaar pay, and prepaid cards (FU, 2023; Razorpay, 2025). In addition, the study noted that government policies correlate with all the variables. In the same vein Gan *et al.*, 2023 highlights that empirical studies have proved that the existence of digital government helps to improves natural resource efficiency. Also, the beneficial impacts of a digital government is diffused through three channels: government efficiency, regional digital infrastructure, and regional innovation and green innovation levels. In addition, empirical studies posit that government policy on financial technology encompasses inclusion - utilizing

digital technologies to limit financial access gaps and ensure all are included. Openness and interoperability – government policies should support data generation, exchange across sectors, and sharing. Also, support for entrepreneurship and innovation is very key in growing economic value through digitally enabled ventures driven by innovation. People-centred development – an economy technology policy should ensure that digital services are designed to be accessible to all societal segments and sectors. In addition, sustainability that ensures a balancing in economic growth with environmental and social impacts is a key element of government policy. Also, privacy, trust and security that ensures standards and protect assets and exchanges are achieved through government policy on digital financial technology. More importantly, a collaborative regulation that enable coherent cross-sector supervision on digital financial

technology activities is promoted through government policy (MoCD, 2024). Moreso, sustained market growth factor correlates with all the variables. Similarly, Morshadul *et al.*, (2024) noted that financial technology (FinTech) leads to enhanced economic growth by supporting higher productivity and sustainable growth through technological upgrades, diversification, entrepreneurship, innovation and creativity. Additionally, FinTech fast-track investments in poverty alleviation, and reduce income inequality among the poor. However, these attributes of financial technology should align with specific sustainable development goals of the government, a demonstration that government policy on should support an appropriate new technology for financial services development, the study noted. The figure 2 below shows the sustained market growth model of a developing economy financial sector based on the SmartPLS model.

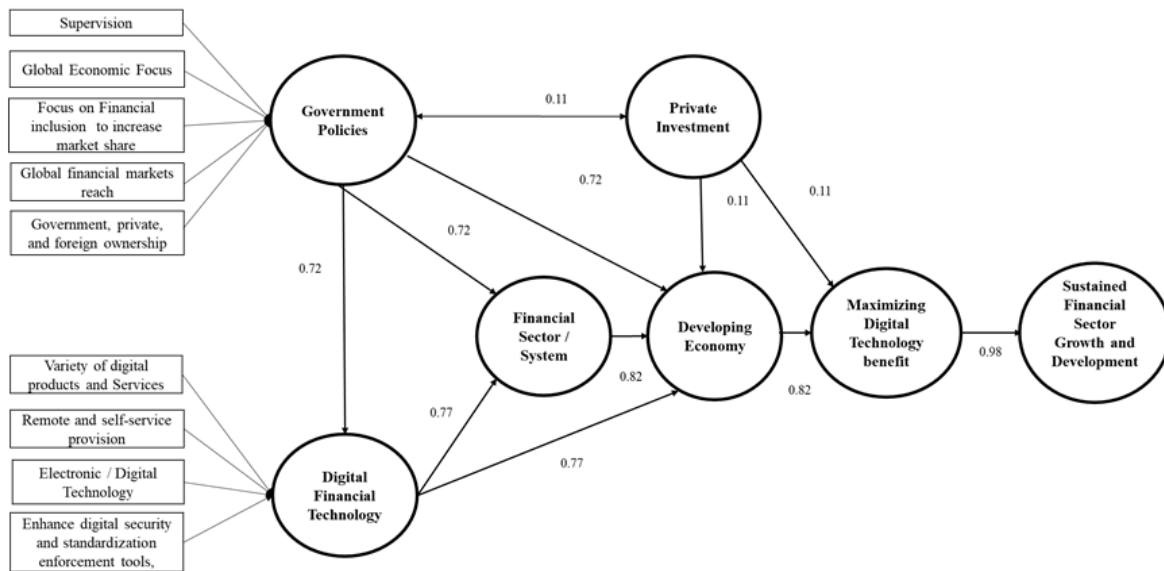


Figure 2: Sustained Market Growth Model of a Developing Economy Financial Sector
Source: This study.

The reliability of the indicators was assessed by the statistical significance of the standardized factorial loadings. The measurement of the model was carried out based on a common rule. That is, outer loadings in the range of 0.40 to 0.60 should be excluded, and the evaluation should be higher than 0.70, indicating a compounded reliability increase (Terrador-Alcaide *et al.* 2020). Further, a measure of the internal reliability of the developed model was also carried out to determine whether compound reliability is the alternative to Cronbach’s alpha, and as a common rule, the score obtained should be expected to be higher than 0.70. Figure 2 shows that the results of the constructs of the developing economies (DE), government policy (DP), digital technology (DT), financial system (FS), and ability to leverage or maximize digital technology (MDT) exceed the minimum requirements to be considered as factors that influence the financial sector of the developing

economies in achieving sustained financial sector growth and development.

Statistical Analysis and Measurement of The Quantitative Factors

The financial sector of developing economies plays a crucial role in determining overall economic growth and development; therefore, measuring the quantitative factors that impact the financial sector of developing economies is very important. Under the Financial Sector Assessment Program of the IMF (2021), quantitative methodologies were used to assess the financial sector of those economies. The factors used by IMF 2021 in their study included the interaction among solvency, liquidity, and contagion risks in the banking sector; the health of nonbank financial institutions; the interactions with financial institutions and their impact on financial markets; macroprudential policy analysis; the impact on

climate change, fintech, and cyber through a survey and secondary financial data. Also, Antwi-Asare *et al.* (2020) used surveys and secondary financial data to perform a quantitative analysis of the financial sector of Ghana. In this regard, this qualitative analysis of the financial sector of the developing economies is based on a survey and analysis of secondary financial data. The demographic profile of the financial institutions that dominate the Ghanaian financial sector is shown below. However,

this study is focused on the Ghana Commercial Bank (GCB), Agriculture Development Bank (ADB), National Investment Bank (NIB), Absa Bank (Absa), and Fidelity Bank Limited (FBL). The demographic profile below also shows the proportional percentage of total assets held by these institutions in the Ghanaian financial sector, based on categories Q1: hold 50.7% of total assets, Q2: hold 22.3% of total assets, Q3: hold 17.6% of total assets, and Q4: hold 9.4% of total assets.

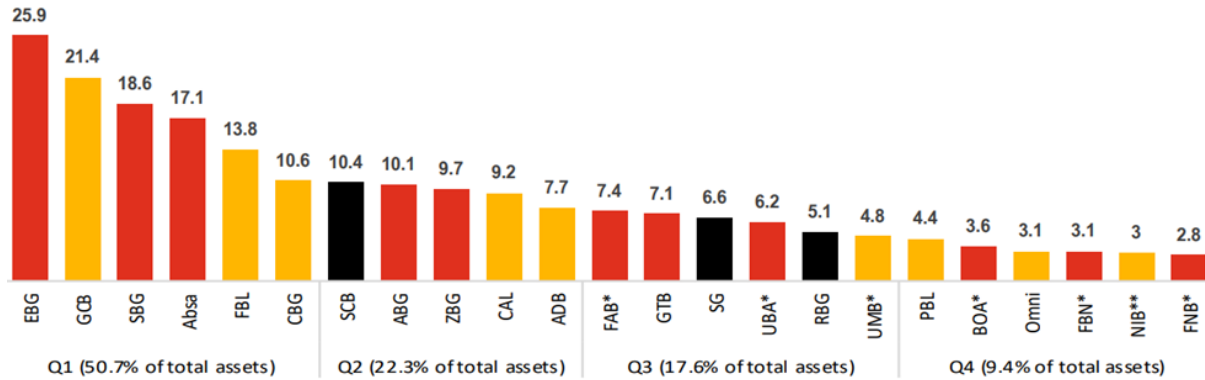


Figure 3: Total assets of selected financial institutions in Ghana
Source: PwC Ghana Banking Survey (2022)

The analysis of the result above shows that five major financial institutions dominate the financial sector of Ghana's developing economies are in the category of Q1, with a total holding of more than half of the entire market (summation of Q2 to Q4), that is 50.7%, and three of the financial institutions under this study form's part. GCB had the highest total asset holding of 25.9%, followed by Absa with a holding of 17.1% and FBL with 13.8% total asset holdings. ADB had a total asset holding of 7.7% in category Q2, while NIB had 3% in the Q4

category. From Figure 2 above, this study observed that the financial sector of developing economies is dominated by many financial institutions with a smaller percentage of total asset holdings. In addition, the pie chart results below show that the percentage of total assets of GCB and ADB makes them category C1 financial institutions in Ghana, with a representation of 52% of total assets if the proportion of the assets of all the remaining financial institutions under this study is summed up.

This study has observed that out of the five financial

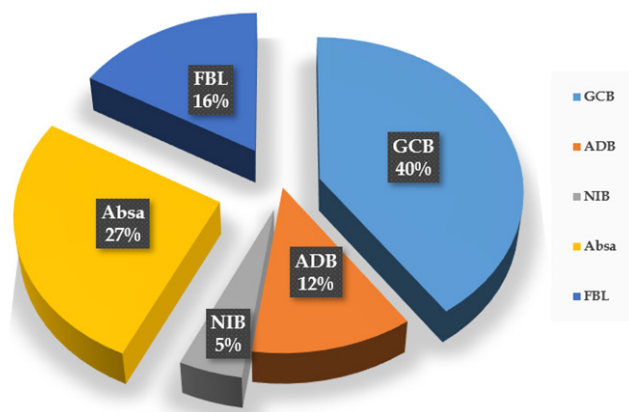


Figure 4: Pie of the Percentage of Total Assets of Five Major Financial institutions in Ghana
Source: this study

institutions analyzed, two financial institutions (GCB and ADB) are in the Q1 category and belong to the government, with a total asset holding of 52%. This is an indication of the government's continuous dominance in the financial sector of developing economies and its

ability to remain strong.

Heightened Factors have Caused The Current State of The Financial Sector In Emerging Markets

A further analysis was carried out on the various factors

identified through literature as the characteristics of the financial sector of developing economies, which of the factors has high dominance in the market. Figure 5 below shows the results of the factors with high dominance in the market. The results in Figure 4 below show that digital technology dominates the factors that are currently impacting the financial sector of emerging markets, with a 21.1% score, followed by government policy, which had 16.7%, then government dominance

in economic activities, which had 13.5%, risk inherent in bank operations, which had a 12.10% score, and volatility in the market, which had a 10.9% score, followed by a wider range of financial products with a 5.8% score. The remaining factors had a percentage score of less than 5% significance. These are indications that digital technology, government policy, and government dominance are the most influential factors in the financial sector of emerging markets.



Figure 5: Factors with high dominance in the financial sector of developing economies

Source: this study

CONCLUSION

Both new and old realities characterize the financial sector developing economies. These realities are affirmed in literatures such as Mohideen *et al.* (2018), OECE (2022), the World Bank (2016), López *et al.* (2012), Xavier (2022), and Ravikumar *et al.* (2022). This affirmation has been approved through the developed model in Figure 2 above, and it also aligns with the findings of authors such as Zhu *et al.* (2023) and PwC (2023) survey reports, which indicate that digital technologies are the surest way for sustainable financial sector development in developing economies. The bottom line is that government dominance and control remain high in the financial sector of developing economies, including dominance in major economic activity. However, fully leveraging digital technology would capacitate the financial sector of developing economies to take advantage of all the opportunities in the global financial market to achieve a guarantee and sustainable financial sector growth and development.

Limitations and Direction for Future Research

While conducting this study, it is noted that the data used for analysis is limited to a specific period, which may not be a true representation of the situation of the financial sector in developing economies in the future. In addition,

the study could not test how digital technology could be used to limit government dominance in the financial sector of developing economies and recommended that a future study focus on that.

REFERENCES

- Ahinsah-Wobil, I. (2023). *Analyzing the impact of domestic debt restructuring on banks in Ghana: Challenges faced and strategies for resilience*. SSRN. <https://ssrn.com/abstract=4433029>
- Allen, F., & Santomero, A. M. (1996). *The theory of financial intermediation* (pp. 32–96). SSRN. <https://ssrn.com/abstract=7716>
- Al-Smadi, O. M. (2023). Examining the relationship between digital finance and financial inclusion: Evidence from MENA countries. *Borsa Istanbul Review*, 23(2), 464–472. <https://doi.org/10.1016/j.bir.2022.11.016>
- Alt, R., Beck, R., & Smits, M. T. (2018). FinTech and the transformation of the financial industry. *Electronic Markets*, 28(3), 235–243. <https://doi.org/10.1007/s12525-018-0310-9>
- Ankrah, E. (n.d.). Technology and service quality in the banking industry in Ghana. *Information and Knowledge Management*, 2(8). ISSN 2224-5758 / 2224-896X
- Antwi-Asare, T. O., & Addison, E. K. Y. (2020). *Financial*

- sector reforms and bank performance in Ghana. *Overseas Development Institute*. EliScholar, Yale University Library.
- Appiahene, P., Missah, Y. M., Gyening, R. M. O. M., Adu-Gyamfi, D., & Opoku, M. (2022). Predicting the operational efficiency of banks using their information technology: Decision tree algorithm approach. *Information Technologist*, 19(1).
- Arizala, F., & Yang, D. (2021). *Developing economies must balance overcoming the pandemic, returning to more normal policies, and rebuilding their economies*. IMF's Strategy, Policy, and Review Department. <https://www.imf.org/external/pubs/ft/fandd/2021/06/the-future-of-emerging-markets-dutttagupta-and-pazarbasioglu.htm>
- Aryeetey, E. (1996). *The formal financial sector in Ghana after the reforms* (Overseas Development Institute Working Paper No. 86). ODI.
- Aryeetey, E., Baah-Nuakoh, A., Duggleby, T., Hettige, H., & Steel, W. F. (1993). *Meeting the financing needs of small and medium-sized enterprises in Ghana*. World Bank/NBSSI.
- Bank of Ghana. (1994). *Quarterly economic bulletin* (January–March). Accra.
- Bank of Ghana. (2020). *Payment systems oversight annual report, 2020*. <https://www.bog.gov.gh/wp-content/uploads/2022/02/Payment-Systems-Annual-Report-2020.pdf>
- Bernanke, B. (2013, May 18). *Innovation lifts living standards*. CNBC. <https://www.cnbc.com/2013/05/18/bernanke-tells-grads-innovation-lifts-living-standards.html>
- Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, 79, 228–237. <https://doi.org/10.1016/j.jbusres.2017.03.013>
- Corporate Finance Institute. (n.d.). *Emerging markets*. Retrieved November 10, 2023, from <https://corporatefinanceinstitute.com/resources/economics/emerging-markets/>
- Stowell, D. P. (2018). *Investment banks, hedge funds, and private equity* (3rd ed., pp. 265–289). Academic Press. <https://doi.org/10.1016/B978-0-12-804723-1.00012-8>
- Dranev, Y., Frolova, K., & Ochirova, E. (2019). The impact of fintech M&A on stock returns. *Research in International Business and Finance*, 48, 353–364. <https://doi.org/10.1016/j.ribaf.2019.01.012>
- Financial Universe. (2023). *The main types of digital payments, and how to offer financial services using them*. Financial Universe. <https://dock.tech/en/fluid/blog/financial/digital-payments/#:~:text=Digital%20payments>
- Freixas, X., & Rochet, J. C. (2008). *Microeconomics of banking* (2nd ed.). MIT Press.
- Gan, T., Zhang, M., & Zhang, Z. (2023). The impact of digital government policy on entrepreneurial activity in China. *Economic Analysis and Policy*, 79, 479–496. <https://doi.org/10.1016/j.eap.2023.06.029>
- Gimpel, H., Rau, D., & Röglinger, M. (2018). Understanding FinTech start-ups: A taxonomy of consumer-oriented service offerings. *Electronic Markets*, 28(3), 245–264. <https://doi.org/10.1007/s12525-017-0275-0>
- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the FinTech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35(1), 220–265. <https://doi.org/10.1080/07421222.2018.1440766>
- Gomber, P., Koch, J. A., & Siering, M. (2017). Digital finance and FinTech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537–580. <https://doi.org/10.1007/s11573-017-0852-x>
- Grozdanovska, V., Bojkovska, K., & Jankulovski, N. (2017). Financial management and financial planning in the organizations. *Financial Management and Financial Planning in the Organizations*, 9(2), 120–125.
- Hussain, A. H. M. B., Endut, N., Das, S., Thanvir, M., Chowdhury, A., Haque, N., & Ahmed, K. J. (2019). Does financial inclusion increase financial resilience? Evidence from Bangladesh. *Development in Practice*, 29(6), 798–807.
- International Monetary Fund. (2021). *2021 financial sector assessment program review—Background paper on quantitative analysis*. <http://www.imf.org/external/pp/ppindex.aspx>
- International Labour Organization. (2022). The impact of digitalization in the finance sector. Technical Meeting on the Impact of Digitalization in the Finance Sector, Geneva, 24–28 January 2022. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_851905.pdf
- International Monetary Fund. (2011). *Ghana: Financial system stability assessment update* (IMF Country Report No. 11/131). <https://www.imf.org/external/pubs/ft/scr/2011/cr11131.pdf>
- Karadayi-Usta, S. (2019). An interpretive structural analysis for industry 4.0 adoption challenges. *IEEE Transactions on Engineering Management*, 67(3), 973–978.
- López-Villavicencio, A., & Mignon, V. (2017). Exchange rate pass-through in emerging countries: Do the inflation environment, monetary policy regime and central bank behavior matter? *Journal of International Money and Finance*, 79, 20–38.
- McKnight, D. H., Liu, P., & Pentland, B. T. (2020). Trust change in information technology products. *Journal of Management Information Systems*, 37(4), 1015–1046.
- Menza, M., Jerene, W., & Oumer, M. (2024). The effect of financial technology on financial inclusion in Ethiopia during the digital economy era. *Cogent Social Sciences*, 10(1). <https://doi.org/10.1080/23311886.2024.2309000>
- Merton, R. C., & Bodie, Z. (1995). A conceptual framework for analyzing the financial environment. In D. B. Crane, K. A. Froot, S. P. Mason, A. Perold, R. C. Merton, Z. Bodie, E. R. Sirri, & P. Tufano (Eds.), *The global financial system: A functional perspective* (pp. 3–31). Harvard Business School Press.
- Ministry of Communication and Digitalization. (2024). *Ghana digital economy and strategy*. Republic of Ghana.

- <https://nita.gov.gh/theevooc/2024/12/Ghana-Digital-Economy-Policy-Strategy-Document.pdf>
- Mohideen, J., & Paracuelles, E. (2018). *How is technology transforming global emerging markets?* Economics. <https://www.nomuraconnects.com/focused-thinking-posts/how-will-technology-transform-global-emerging-markets/>
- Morrissey, O., & Udomkerdmongkol, M. (2012). Governance, private investment and foreign direct investment in developing countries. *World Development*, 40(3), 437–445. <https://doi.org/10.1016/j.worlddev.2011.07.004>
- Morshadul, H., Arifu, H., Mohammad, Z. A., & Gasbarro, D. (2024). FinTech and sustainable development: A systematic thematic analysis using human- and machine-generated processing. *International Review of Financial Analysis*, 95(C). <https://doi.org/10.1016/j.irfa.2024.103473>
- Mukong, A. K., & Nanziri, L. E. (2021). Social networks and technology adoption: Evidence from mobile money in Uganda. *Cogent Economics & Finance*, 9(1), 1913857.
- Nambware, E. (2023). Emerging markets: Ghana. *The Treasurer Magazine*, 3. <https://www.treasurers.org/hub/treasurer-magazine/treasurer-issue-3-2023>
- Organisation for Economic Co-operation and Development. (2021). *Business insights on developing economies 2021*. OECD Development Centre. <http://www.oecd.org/dev/oecdemnet.htm>
- Pousttchi, K., & Dehnert, M. (2018). Exploring the digitalization impact on consumer decision making in retail banking. *Electronic Markets*, 28(3), 265–275. <https://doi.org/10.1007/s12525-017-0283-0>
- PwC Ghana. (2022). *Ghana banking survey report: Why banks can no longer ignore ESG—Views from Ghanaian bankers*. <https://www.pwc.com/gh/en/assets/pdf/ghana-banking-survey-report-2022.pdf>
- Rana, N. P., Luthra, S., & Rao, H. R. (2019). Key challenges to digital financial services in developing economies: The Indian context. *Information Technology & People*, 33(1), 198–229. <http://hdl.handle.net/10454/17475>
- Razin, A. (2022). Understanding national-government policies regarding globalization: A trade-finance analysis. *Journal of Government and Economics*, 8, 100060. <https://doi.org/10.1016/j.jge>
- Razorpay. (2025). *Digital payments in India – Meaning, types of digital payment, benefits & how do they work?* <https://razorpay.com/learn/what-is-digital-payments/>
- Reserve Bank of Australia. (2014). *Financial system inquiry*. <https://www.rba.gov.au/publications/submissions/financial-sector/financial-system-inquiry-2014-03/pdf/financial-system-inquiry-2014-03.pdf>
- El-Naggar, S. (1994). Financial policies and capital markets in Arab countries. *International Monetary Fund*. <https://doi.org/10.5089/9781557754189.071>
- Schwab, F., & Guibaud, S. (2016). The rise of BankTech—The beauty of a hybrid model for banks. In S. Chishti & J. Barberis (Eds.), *The FinTech book* (pp. 245–247). Wiley.
- Sun, Y., Li, S., & Wang, R. (2023). Fintech: From budding to explosion—An overview of the current state of research. *Review of Managerial Science*, 17(3), 715–755.
- The Business & Management Review. (2023). The financial sector of emerging markets based on digital technology evolution in the banking sector—The Ghanaian experience. *The Business & Management Review*, 14(3). <https://doi.org/10.24052/BMR/V14NU03/ART-11>
- Tran, T. K. O., Le, T. T. V., & Le, Q. D. (2023). Relationship between financial inclusion, monetary policy and financial stability: An analysis in high financial development and low financial development countries. *Heliyon*, 9(6), e16647. <https://doi.org/10.1016/j.heliyon.2023.e16647>
- Turner, R., Samaranyaka, A., & Cameron, C. (2000). Parametric vs nonparametric statistical methods: Which is better, and why? *The New Zealand Medical Student Journal*. <https://nzmsj.scholasticahq.com/article/12577.pdf>
- U.S. Department of the Treasury. (2023). *Strengthening Africa's financial sector to promote growth*. <https://home.treasury.gov/news/press-releases/kd3805>
- United Nations Office for Disaster Risk Reduction. (2017). *Sendai framework terminology on disaster risk reduction*. <https://www.undrr.org/terminology/risk-transfer>
- Weisbrod, S. R., & Rojas-Suárez, L. (1995). *Financial fragilities in Latin America: The 1980s and 1990s*. International Monetary Fund. <https://doi.org/10.5089/9781557755025.084>
- World Bank. (2016). *Financial development*. <https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/financial-development>
- Xavier, V., Thierry, F., Veldkamp, L., & Darrell, D. (2022). *The impact of technology on finance: A new eBook*. CEPR. <https://cepr.org/voxeu/columns/impact-technology-finance-new-ebook>
- Xcube LABS. (2023). *How the banking and finance industry is transforming digitally?* <https://www.xcubelabs.com/blog/how-the-banking-and-finance-industry-is-transforming-digitally/>
- Xu, H., Miao, W., & Zhang, S. (2024). Digital technology development and systemic financial risks: Evidence from 22 countries. *Borsa Istanbul Review*, 24(Suppl. 2), 1–9. <https://doi.org/10.1016/j.bir.2024.08.002>
- Yassine, M., Zhang, J., & Hansali, A. (2024). *Advances in emerging financial technology and digital money*. Routledge. <https://doi.org/10.1201/9781032667478>
- Zahler, R. (1999). *Strengthening the financial experience in less developed countries: The Latin American experience*. Bank for International Settlements. <https://policycommons.net/artifacts/3687600/strengthening-the-financial-experience-in-less-developed-countries/4493519/>
- Zhu, Y., & Jin, S. (2023). How does the digital transformation of banks improve efficiency and environmental, social, and governance performance? *Systems*, 11(7), 328. <https://doi.org/10.3390/systems11070328>