



**ASSESSING THE IMPACT OF COVID 19 ON  
THE PERFORMANCE OF RURAL BANKS WITHIN  
THE GREATER KUMASI AND ACCRA REGIONS<sup>i</sup>**

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**Abstract:**

The COVID-19 pandemic had a devastating impact on the economy of Ghana, as restrictive measures imposed by the Ghanaian government to stem the spread of the virus disrupted economic activities. The research, therefore, aimed at investigating the impact the pandemic had on the performance of rural banks, using Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM) as performance indicators. The study specifically had the objective of assessing the impact of the pandemic on rural banks located in areas which faced the three-week lockdown imposed by the government. Hence, three rural banks from Accra and Greater Kumasi areas: La Community Rural Bank, Atwima Mponua Rural Bank, and Okomfo Anokye Rural Bank, were selected through convenience sampling. The study aimed to determine the impact of the pandemic by comparing the pre-pandemic performance of the rural banks, which was represented by their 2018 and 2019 performances, and their during-pandemic performance, which was represented by their 2020 performance since the pandemic hit the country in the year 2020. The financial statements of the rural banks were analysed using the t-test. Findings demonstrated that there was no significant difference in the ROA, ROE, and NIM of rural banks between the pre-pandemic and post-pandemic periods, indicating that their performance was not adversely impacted by the Covid-19 pandemic. This was interpreted to mean that rural banks in the country were resilient, as

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<sup>i</sup> ÉVALUATION DE L'IMPACT DU COVID 19 SUR LA PERFORMANCE DES BANQUES RURALES DANS LES RÉGIONS DU GRAND KUMASI ET ACCRA

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they bounced from their initial poor performance earlier on in the year 2020 as the majority of the restrictions were lifted.

**JEL:** G21; E44; I18; O55; G01

**Keywords:** COVID-19 pandemic, economic impact, rural banks, Return on Assets (ROA), Return on Equity (ROE), lockdown effects, financial performance

**Resume :**

La pandémie de Covid-19 a eu un impact dévastateur sur l'économie du Ghana, car les mesures restrictives imposées par le gouvernement ghanéen pour endiguer la propagation du virus ont perturbé les activités économiques. La recherche visait donc à étudier l'impact de la pandémie sur la performance des banques rurales, en utilisant le rendement des actifs (ROA), le rendement des capitaux propres (ROE) et la marge nette d'intérêt (NIM) comme indicateurs de performance. L'étude avait spécifiquement pour objectif d'évaluer l'impact de la pandémie sur les banques rurales situées dans les zones confrontées au confinement de trois semaines imposé par le gouvernement. Ainsi, trois banques rurales des régions d'Accra et du Grand Kumasi : La Community Rural Bank, Atwima Mponua Rural Bank et Okomfo Anokye Rural Bank ont été sélectionnées par échantillonnage de commodité. L'étude visait à déterminer l'impact de la pandémie en comparant la performance pré-pandémique des banques rurales, représentée par leurs performances de 2018 et 2019, et leur performance pendant la pandémie, représentée par leur performance de 2020, depuis la pandémie. a frappé le pays en 2020. Les états financiers des banques rurales ont été analysés à l'aide du test t. Les résultats ont démontré qu'il n'y avait pas de différence significative dans le ROA, le ROE et le NIM des banques rurales entre les périodes pré-pandémique et post-pandémique, ce qui indique que leur performance n'a pas été affectée par la pandémie de Covid-19. Cela a été interprété comme signifiant que les banques rurales du pays ont fait preuve de résilience, puisqu'elles ont rebondi après leurs mauvaises performances initiales au début de l'année 2020, lorsque la majorité des restrictions ont été levées.

**Mots clés :** pandémie de Covid-19, impact économique, banques rurales, Rendement des actifs (ROA), Rendement des capitaux propres (ROE), effets de confinement, performance financière

## 1. Introduction

The coronavirus (COVID-19) outbreak is a new strain of coronaviruses that had never affected humanity before prior to its outbreak in 2019. Covid-19 was first diagnosed in December 2019 in Wuhan City in China (Gossling *et al.*, 2019), which then went on to spread to every corner of the globe, leading the World Health Organisation (WHO) to declare it a pandemic in March 2020 (WHO, 2020). The United Nations Framework

Report (2020) described the COVID-19 pandemic as one of the most serious pandemics to occur in the world, with the virus infecting over 536 million individuals, resulting in the death of over 6.3 million of the infected (Worldometer, 2022).

The COVID-19 pandemic occasioned seismic worldwide economic disturbances, which triggered the steepest global economic recession unseen since the immediate aftermath of the Second World War (OECD, 2020). Measures put in place by governments across the globe to stem the spread of the virus have triggered financial hardships, especially in poor countries (Ioannidis, 2020). Although the global economy seems to be on its way to recovery, the rebound is poised not to be even, with much of the developing world expected to lag behind in the return to economic normalcy (World Bank, 2021). Moreover, supply chain issues have hampered the global economic recovery, with emerging and developing economies expected to bear the brunt of the consequences than the world's major economies (Chowdry *et al.*, 2021).

The African Development Bank (2021) affirmed that Sub-Saharan African countries are included in the long list of countries severely affected by the pandemic, as they have encountered significant setbacks in per capita income and development gains by at least a decade. The fact that containment measures implemented to stem the spread of the virus largely remained in place even well after the peak of the pandemic slowed the recovery from the economic and financial damage caused by the pandemic to economies of developing countries (Katusiime, 2021).

Over the course of history, various economic crises have caused significant disruptions in the operations of banking systems across the world (Gazi *et al.*, 2022). The British credit crisis of 1772 (Sheridan, 1960), the Great Depression between 1929 and 1939 in America (Harrod, 1964), the Asian crisis of 1997 (King, 2001), and the global financial crisis between 2007 and 2008 (Aisen & Franken, 2008) all inflicted serious damages on banks. The economic crisis caused by the COVID-19 pandemic is no different, as it has generated adverse consequences on banking systems across the world.

The financial sector in Africa has been dealt a great blow by the COVID-19 pandemic, exposing financial institutions on the continent to extraordinary operational and financial difficulties (Katusiime, 2021). In the wake of the economic damage caused by the pandemic, the banks were expected to play a major role in absorbing the shock by providing crucial funding (Acharya & Steffen, 2020). However, according to Minney (2020) and Tyson (2020), the pandemic contributed to a steep rise in defaults of household and corporate debts, which adversely affected the financial performance of banks, compromising their ability to provide the much-needed credit support for recovery from the pandemic. Indeed, in the year 2020, the average return on equity of African banks fell by 50 to 7 percent (Jurd de Girancourt *et al.*, 2021). Since the economic damage of the pandemic became apparent, regulators have stepped in to prop up banks to ensure financial stability and mitigate the risks to the banking system, underscoring the importance of banks to the economy.

Rural banks form an integral part of the financial system in Ghana (Awo & Akotey, 2019). The Bank of Ghana (2022) reported that there are currently 144 rural banks

operating in the country, which makes them the largest network of financial institutions in the country. Rural banks provide essential financial services to small businesses and people in rural and remote areas in the country (Awo & Akotey, 2019). With the advent of the COVID-19 pandemic and its concomitant adverse impact on the financial sector, rural banks are expected to have faced some challenges. However, the extent of the challenges is largely unknown due to the lack of research into rural banks in the country. The study will, therefore, examine the impact of the COVID-19 pandemic on the profitability of rural banks within the Greater Accra and Greater Kumasi areas.

## **1.2 Statement of the Problem**

Ghana has also been affected by the pandemic, being noted as the fifth country in Africa with the most cases behind Nigeria, Morocco, South Africa and Egypt (Aduhene & Assibey, 2020). The Covid-19 pandemic caused an unprecedented collapse of the Ghanaian economy (Sasu, 2022). According to Sasu (2022), between 2019 and 2020, the country's real GDP growth shrank by about 90 percent. The economic meltdown was largely caused by the imposition of restrictions to curb the spread of the virus, headlined by a three-week lockdown in the country's three biggest metropolitan areas: Accra, Kumasi and Kasoa (Aduhene & Assibey, 2020).

Large sectors of the Ghanaian economy were hit by the pandemic, with the Ghana Statistical Service (2020) reporting a 10 to 20 percent increase in the prices of agricultural produce during the pandemic era. This was a result of the negative impact of the pandemic on the agricultural sector. The manufacturing sector also was also hit badly, reducing its contribution to the economy (Laing, 2020). The tertiary sectors of the economy were also battered by the pandemic, as lockdown and social distancing measures prevented the gathering of workers at the workplace (Aduhene & Assibey, 2020). At the peak of restrictions, banks, including rural banks, closed down several branches, and were mandated to operate on a limited basis even after the lifting of the lockdown (PricewaterhouseCoopers, 2020).

The COVID-19 pandemic presented challenges to banks in the country (PricewaterhouseCoopers, 2021). PricewaterhouseCoopers (2021) concluded in their analysis of the financial performance of banks in the wake of the pandemic that, though banks did not sustain devastating financial damage as a result of the pandemic, their profitability plunged. The profit before tax of banks fell by 6.7 percent as a result of credit losses and a rise in net impairment losses owing to the pandemic (PwC, 2021). Banks also recorded a 16.3 percent decrease in return on equity due to significant reductions in profits (PwC, 2021). Unsurprisingly, industry deposits reduced while loans and advances issued to clients increased significantly as banks funded struggling businesses and individuals (PwC, 2021). Furthermore, banks' return on assets, which had seen steady growth before the pandemic, nosedived by some 7 percent (PwC, 2021).

In the wake of the economic ramifications of the COVID-19 pandemic, the universal banks, under the auspices of the Bank of Ghana, introduced mitigating measures to help clients cope with the economic and financial uncertainty, including a

reduction of lending rates, moratoriums on loan repayments and other debt restructuring schemes, which were all expected to adversely reflect on banks' profitability (PwC, 2021). According to PwC (2021), banks recorded significant upticks in COVID-19-induced borrower reliefs, resulting in a 4 percent increase in non-performing loans from 2019 to 2020.

Considering the fact that rural banks and universal banks have similar operations, except that rural do not engage in foreign exchange business (Alhassan, 2017), it is assumed that rural banks sustained similar damages to their profitability. Though this assumption as it is backed by empirical data (PwC, 2021), there is no academic research that categorically confirms it. This is because academic research on the effect of the pandemic on rural banks is virtually non-existent. In fact, there is a paucity of academic research on the impact the pandemic had on the performance of banks in the country. Though PwC (2021) assessed the impact of the pandemic on the banking sector, their report only focused on universal banks, neglecting the rural banks. This problem may be attributed to the scarcity of financial data regarding the financial performance of rural banks since most rural banks do not publish their financial statements. Regardless, the study will attempt to solve this problem by assessing the impact of the pandemic on rural banks by focusing on three prominent rural banks in the country.

### **1.3 Objectives of the Study**

On a general level, the study aims to examine the effect of the COVID-19 pandemic on the profitability of rural banks in the Greater Accra and Greater Kumasi areas. Specifically, the study aims to achieve the following objectives:

- 1) To examine the COVID-19 pandemic's effect on the ROA of rural banks in the Greater Accra and Greater Kumasi areas.
- 2) To examine the COVID-19 pandemic's effect on the ROE of rural banks in the said areas.
- 3) To examine the COVID-19 pandemic's effect on the NIM of rural banks in the said areas.

### **1.4 Research Questions**

- 1) What effect did the COVID-19 pandemic have on the ROA of rural banks located in the Greater Accra and Greater Kumasi areas?
- 2) What effect did the COVID-19 pandemic have on the ROE of rural banks located in the Greater Accra and Greater Kumasi areas?
- 3) What effect did the COVID-19 pandemic have on the NIM of rural banks located in the Greater Accra and Greater Kumasi areas?

### **1.5 Significance/Relevance of the Study**

The study is significant in every sense of the word. Its relevance is based on the importance of rural banks to the country, the need to know the extent of the effect of an impactful pandemic on rural banks and plug the literature gap concerning the topic.

Rural banks are crucial to the financial sector and the Ghanaian economy in general (Alhassan, 2017). Research into the effect of the pandemic on rural banks will make revelations concerning the impact of the pandemic on rural banks, which will enable them to prepare and build resilience through crises such as the COVID-19 pandemic. This will improve rural banks' ability to make their all-important contributions to national development in the form of providing needed finance for rural areas and small and medium-scale enterprises (SMEs).

The study is also significant from the perspective of regulators of rural banks like the Bank of Ghana. It is in the interest of regulators that rural banks remain operational and profitable to protect the deposits and investments of Ghanaians. The study's aim of establishing the effect of the pandemic on rural banks will assist in that regard, as it will bring to light data that may inform regulators' policies to ensure the stability of the financial sector. This will, in turn, boost customer and investor confidence in rural banks and the economy in general. Customers and investors of rural banks also stand to benefit from the findings of the study, as their deposits and investments are likely to be safeguarded in a stable financial sector.

Moreover, the study will make significant contributions to the literature and also stimulate further research into the impact the pandemic had on rural banks and other financial institutions in the country. There is no academic research that assesses the effect of the pandemic on rural banks in the country. Rural banks to a large extent, have been overlooked in studies concerning profitability and performance. This pioneering study will plug this gap in the literature and provide relevant data and information concerning rural banks in the country.

### **1.6 Scope of the Study**

The study aims to assess the effect of the COVID-19 pandemic on the profitability of rural banks in the Greater Accra and Greater Kumasi areas and also examine the operational challenges faced by rural banks during the pandemic. The study adopts a descriptive quantitative approach. The study assesses profitability using the ROA, ROE, and NIM of three rural banks. The study utilizes the published financial statements for 2018 to 2020 of the rural banks to determine the impact of the pandemic on their profitability. It also assesses employees of the three rural banks to examine the operational challenges they faced during the pandemic.

### **1.7 Organisation of the Study**

There are five sessions in the study. The study's background, problem statement, significance, and goals are all covered in the first session, which also introduces the study. The second session analyses all pertinent research on the subject. The study's methodology is covered in the third session, and its results are given in the fourth. The fifth session brings the investigation to a close by reviewing the findings in connection to the introduction and relevant literature.

## 2. Literature Review

The session reviews previous research on rural banks, the COVID-19 pandemic, and how the pandemic affects the profitability of rural banks. This session also includes the study's conceptual foundation.

### 2.1 Overview of Rural Banking

The Ghanaian government first established rural banks in 1976 through the Bank of Ghana with the intention of facilitating rural development by extending financing to successful rural enterprises (Alhassan, 2017). In order to promote the promotion of growth and development in rural areas, institutional credit was the primary justification for the founding of banks (Alhassan, 2017). The establishment of rural banks was a response to the ongoing search for a unique and adequate institutional arrangement to provide enough credit facilities for rural residents and businesses.

Rural banking is the process of providing banking services for rural residents and businesses. According to Steel and Andah (2003), rural banks are unit banks that are owned fully or partly by members of the rural community through the purchase of shares with the license to provide financial intermediation in rural areas. Addeah (1989) described a rural bank as an institution incorporated under Ghana's company code whose name includes the word "bank", which is licensed by the Bank of Ghana to undertake specified banking business. Unlike universal banks, the institutional frameworks by which rural banks are created and operated differ markedly in different countries (Owusu, 2006). In countries like the Philippines and India, rural banks are owned by the government (Besley, 1994). In Nigeria, rural banks are established by existing universal banks as part of their branch banking systems (Ukpong, 1998). However, in Ghana, rural banks are established as unit banks and registered as public limited liability companies under the Company Code 1963 (Act 179).

Under the Banks and Specialised Deposit-Taking Institutions Act 2016 (Act 930), rural banks operate as quasi-commercial banks, as they undertake all the operations of commercial banks except that they are not authorized to undertake foreign exchange operations. Another distinguishing feature of rural banks is that they have significantly low minimum capital requirements, which sets them apart from commercial banks (Alhassan, 2017). Specifically, rural banks are expected to pay GHS 1 million to the Bank of Ghana as a minimum capital requirement, while commercial banks have a requirement of GHS 400 million (Bank of Ghana, 2019). Also, rural banks are concentrated in rural areas, where commercial may be considered risky and unprofitable to operate.

According to the Association of Rural Banks Ghana (ARBG) (2022), there are 144 rural banks in Ghana, with over 850 branch networks providing banking services across the country. Per the indications of the association, the rural banking subsector serves over 6.5 million customers, and employs more than 15,000 permanent staff (ARBG, 2022). The concept of rural banking is a hybrid of commercial and development banking as it was introduced to facilitate the development of rural areas through the provision of

commercial banking services. Rural banks are mostly unit banks with the mandate to mobilise savings and lend money to people and businesses in areas or units where they are located.

The ownership and management of rural banks have evolved over the decades. Formerly, rural banks were required to have full local ownership and control, in the sense that the communities within which they are located are mandated to own and control the operations of rural banks (Alhassan, 2017). However, in light of the growth and expansion of rural banks outside their communities, the Bank of Ghana (2019) has mandated that rural banks should have full Ghanaian ownership with community stakes that do not amount to less than 20 percent. To ensure that rural banks serve the interests of local communities, the Bank of Ghana (2019) places limits on the share of ownership of private individuals and corporate entities of rural banks to 30 percent and 50 percent respectively. This is to see to it that rural banks are not hijacked and used to promote the parochial interests of private individuals and corporate bodies at the expense of the development of local communities.

Rural banks are supervised by the Bank of Ghana, specifically the Other Financial Institutions Supervision Department of the central bank. It licenses rural banks and guides their operational policies. However, the central bank has delegated some supervisory duties to the Association of Rural Banks (ARB) Apex Bank, which has been termed by some as the central bank of rural banks (Etu-Menson & Ato-Enyamful, 2011). The bank performs the role of a min-central bank for all rural banks in the country, undertaking the day-to-day supervision of rural banks (Etu-Menson & Ato-Enyamful, 2011). The ARB Apex Bank in 2001, under the auspices of the Bank of Ghana and the World Bank, was based on a positive feasibility report from the Philippines to provide financial, technical and managerial support to rural banks. The bank has provided the following crucial services to rural banks in the country:

- 1) Provides liquidity support for rural banks facing non-permanent liquidity challenges.
- 2) Provides treasury management services to rural banks.
- 3) Offers deposit insurance schemes to rural banks by providing insurance cover against the loss of deposits of customers in the event of failure of a rural bank.
- 4) Provides specific management and movement services for rural banks.

The Bank of Ghana has streamlined the lending operations of rural banks to ensure that rural bank credit benefits small-scale businesses in rural communities. Operations of rural banks are also customised to suit rural demand and needs. Rural banks mobilise savings through products such as current and savings accounts, time deposits and “susu” collection, where customers of rural banks make time-based savings. They also provide microfinance loans to finance the micro-income activities of individuals and businesses in their catchment areas. The term of such microfinance loans is usually between 4 to 6 months (Alhassan, 2017). Rural banks further provide salary loans for persons with fixed salaries, as well as “susu” loans, which are provided for persons following a period of



consistent and smaller deposits (Alhassan, 2017). Moreover, rural banks provide rural customers with money transfer services through Western Union and Apex Link.

In order to serve the requirements of rural communities, rural banks, according to Addo (1998), combine microfinance and commercial banking activities. They allow locals the chance to save money and offer credit services in places where universal banks are unable to. Farmers, fishermen, and shepherds are among the rural laborers who hardly ever save their profits in the absence of rural banks (Alhassan, 2017). Additionally, these rural employees must seek loans from money lenders with unfavorable terms when they need money (Preko & Armah-Tetteh, 2005). Rural banks assist in resolving this issue by encouraging rural workers to save money while also providing them with loans and overdraft services when they are in need (Alhassan, 2017). According to Addeah (1989), rural banks have the goals of mobilising rural savings, providing credit and other services to rural dwellers, earning profits for its shareholders, initiating projects with the aim of promoting rural socio-economic development, and, by extension, facilitating national development.

## **2.2 The Importance of Rural Banks**

National development cannot be achieved without the development of rural areas. The 1992 Constitution of the Republic of Ghana commits itself to rural development as an integral part of a national strategy to improve the living standards of people in rural areas. The Ghanaian economy is highly dependent on the economic activities in the rural areas (Food and Agriculture Organisation of the United Nations, 2022). The rural areas of the country are bastions of agriculture, which accounts for 54 percent of GDP, and 40 percent of the country's foreign exchange earnings (FAOUN, 2022). It was in cognisance of the economic importance of the rural areas and the need to facilitate rural development that the government of Ghana established rural banks to help rural area businesses, which are mainly based on agriculture.

Rural banks provide much-needed rural credit for businesses and individuals in the rural areas to contribute meaningfully to socio-economic development (Alhassan, 2017). Rural banks operate on a rural-centred credit policy that is focused on mobilising rural resources and redistributing them to the needed areas in the rural economy, thereby creating the potential for increased development in the rural areas and, by extension, the country in general (Alhassan, 2017). Before the establishment of rural banks, rural credit was provided by non-institutional sources like money lenders, friends and family, while institutional sources of rural credit came from commercial banks and state-owned development-oriented banks like the Agricultural Development Bank (ADB) and the National Investment Bank (NIB) (Alhassan, 2017). Though it may seem these sources of credit should be sufficient for rural development, in effect, they provide an insufficient credit market as commercial banks mostly consider rural areas to be riskier and more unprofitable (Alhassan, 2017). This is a consequence of the inability of rural borrowers to render enough security for loans and the inherent risks involved in agriculture. Rural banks were, therefore, established through the Bank of Ghana and charged with

providing crucial credit to stimulate the rural economy (Association of Rural Banks, 1992).

In rural areas, rural banks are the major providers of formal financial services (Nair and Fissaha, 2010). Rural banking required the supply of loans to priority sectors in order to aid in the growth of the rural sector. According to Ibrahim (2012), the purpose of loans to specific sectors was to restore sectoral balance within credit disbursement and channel credit to poorer sections of society, resulting in increased economic activity. Burgess and Pande (2002) argue that working to reduce poverty is a key objective of socio-economic development and that in order to achieve socio-economic development, it is necessary to examine credit because credit is essential for the transformation of economic activities and the exit from poverty.

Furthermore, rural and community banks respond to economic and financial changes in rural communities because they believe rural and community bankers are more familiar with and understand rural economies. Rural and community bankers give financing to potential business borrowers while also serving as community leaders in their catchment regions by devising comprehensive strategies to guide rural economic change. They provide the financial skills required to help rural development projects succeed (Markley and Shaffer, 1993). Rural banks have a direct impact on rural communities' well-being (Binswanger, Khandker & Rosenzweig, 1993). Rural banks have contributed to a shift in non-agricultural output and employment, as well as a decrease in poverty and rural inequality (Burgess and Pande, 2002).

Moreover, rural banks encourage saving habits among rural dwellers. By promoting saving behaviour among rural residents, they are able to mobilise locked-up resources, which are then used to provide credit for rural businesses (Nyarko, 2016). Also, through the promotion of saving habits among rural dwellers, rural banks are able to accelerate economic transformation by improving the standards of living and reducing poverty rates in rural communities (Amponsah, Darkwah & Sebil, 2006). This is because saving provides individuals with a cushion to fall on during difficult times.

According to Amponsah *et al.* (2006), rural banks are responsible for widening and deepening financial intermediation in rural areas. They provide an otherwise non-existent bridge between remote areas and the financial system (Amponsah *et al.*, 2006). They do this by introducing the appropriate innovative banking services and products to connect rural areas financially to the outside world. Through this, rural banks empower the rural population economically to take advantage of their enormous natural resources. For example, the provision of credit enables farmers to purchase fertilisers, seeds, and other agricultural inputs to enhance their farming activities.

Additionally, rural banks support the social and economic requirements of the communities in which they are active (Amponsah *et al.*, 2006). Rural banks reportedly set aside a percentage of their revenues to fulfill social obligations, according to M. Ofosu-Djamerah (1999). The rural banks give to a range of purposes, including, to name a few, healthcare and education. The social welfare of the populace must be taken into account before one can guarantee an increase in output. Therefore, providing or promoting health

and education will surely raise the standard of living of rural residents while also encouraging their stay in those areas in order to promote the growth of the economy's dominant sector, agriculture.

In summary, rural banks form a crucial part of the rural and national economies. Also, they are instrumental in the Ghanaian government's rural development agenda as they provide key banking services to boost productivity, empower rural dwellers, and ultimately transform rural economies and improve their contributions to the national economy.

### **2.3 The COVID-19 Pandemic**

In terms of the number of cases and fatalities, the COVID-19 pandemic has been unprecedented since the Spanish flu pandemic of 1918 to 1920 (Altig *et al.*, 2020). The COVID-19 outbreak originated in Wuhan, China, in 2019 and has since spread around the world via international travel. By the year 2020, every country on the planet will have documented cases of the sickness. SARS-COV 2, the virus that causes COVID-19, has infected over 537 million people worldwide, killing over 6 million people, according to the World Health Organization (2021). Aside from the health and death toll that COVID-19 has caused around the world, there has been a substantial economic toll as a result of the measures put in place by national governments to stop the virus from spreading. The Spanish flu pandemic of 1918-1920 provides a sound foundation for assessing the economic consequences of the COVID-19 pandemic (Altig *et al.*, 2020).

COVID-19 has had a greater economic impact than the Spanish flu, despite the fact that the latter was more lethal (Altig *et al.*, 2020). Barro *et al.* (2020) estimate that the Spanish flu killed around 40 million people worldwide over two years, accounting for about 2.1 percent of the world's population at the time. Over the course of a year, COVID-19 has claimed the lives of little over 2.7 million people, or 0.04 percent of the world's population, while also wreaking havoc on the global economy. Using annual, country-level regression models, Barro *et al.* (2020) calculated that the Spanish flu caused global GDP to decrease by 6%, whereas the World Bank (2020) forecasted a 5.5 percent decline. The epidemic of COVID-19 is the largest global economic disaster since World War II (World Bank, 2020). Every major economy in the world had a GDP fall in 2020 as a result of the epidemic (World Bank, 2020). COVID-19 has caused a greater shock to the world economy than the global financial crisis of 2008. (Schiliro, 2020).

The pandemic, on the other hand, has taken a larger toll on the industrialised world's health and economy than it has on the poor world. While the GDP of developing economies was predicted to fall by 3.0%, the GDP of advanced economies was expected to fall by 11%. (PwC, 2020). On March 13, 2020, Ghana announced its first two COVID-19 instances involving two residents returning from overseas (Sarpong & Obeng, 2020). This epidemic quickly expanded throughout the country's 16 administrative areas, with key towns, including as Accra, Kumasi, and Cape Coast, serving as centres for the virus's propagation. Accra is home to the majority of the country's documented cases. Ghana had registered 14,568 cases 100 days after its first case, of which 10,907 had been

pronounced recovered, and 95 had been officially certified deaths. As of March 26th, 2021, the country's official figure was 89,999 cases, with 86,621 cases recovered and 737 confirmed deaths (Ghana Health Service, 2021).

The Ghanaian government ordered a partial lockdown on the major cities of Accra, Kumasi, and the densely populated district of Kasoa in the country's Central Region in an attempt to stop the virus from spreading. The administration also implemented a number of actions based on the Imposition of Restrictions Act (2020); an executive order signed by the president of the republic. Citizens, with the exception of necessary personnel, were required to stay at home and wear personal protective equipment such as nasal masks, among other things, to keep themselves safe and avoid spreading the virus.

The partial lockdown placed on the country's three urban centres has taken a huge toll on Ghana's economy, particularly the country's substantial informal sector. Ghana's informal economy, which is predominantly driven by SMEs, accounts for 87 percent of the country's GDP (Sarpong & Obeng, 2020). Workers in the informal sector lost their jobs as a result of the partial lockdown. Actors in the formal sector also laid off workers to cope with the pandemic's hardships, adding to the country's unemployment problem. To accommodate COVID-19 expenses, the government altered its budget upwards, resulting in large and unexpected increases in the county's debt stock. The government has lowered its 2020 GDP growth objective from 6.9% to 0.9 percent (PwC, 2020).

The government's creation and implementation of mitigating measures to mitigate the negative consequences of the restrictions was prompted by the detrimental effects of the restrictions (PwC, 2020). After three weeks, the partial lockdown was lifted, and comparable protocols were phased out as the number of instances of the disease declined. The majority of these protocols, with the exception of the lockdown, have been reinstated as a result of the second wave of infections triggered by the virus's new varieties being imported. The Ghanaian government has stated that a lockdown is not the greatest choice for combating the epidemic and that quick immunization of the populace is the most effective way out.

In summary, the pandemic inflicted on the global economy devastating economic consequences. Ghana's economy was not spared as the lockdown and other restrictive measures caused a significant decrease in economic growth. The restrictive measures largely affected the informal economy as individuals and non-essential businesses were ordered to close down.

## **2.4 Rural Bank Performance**

Rural banks are effectively commercial banks with a rural focus. Therefore, the performance of rural banks can be conceived as the performance of commercial banks. The performance of a financial institution is defined by Harker and Zenios (1998) as an economic performance which is assessed in both the short and long term by a number of financial indicators such as the company's price-to-earnings ratios, stock beta and alpha, and Tobin's q-ratios. Bank performance is usually assessed using liquidity and solvency

indicators (Casu, Molyneux & Girardone, 2006). Hefferman and Fu (2008) indicated that bank performance is affected by the general macroeconomic environment and the type of bank being assessed.

Haslem (1968) aligned with this by stating that factors influencing the performance of banks are categorized into two broad sets of factors; internal factors and factors external to banks. The internal factors that influence the performance of banks originate from the profit and loss accounts of the bank or the bank's balance sheet and are usually referred to as micro or bank-specific determinants of performance (Mills & Amowine, 2013). Internal factors affecting rural bank performance include size, capital ratio, deposits and loans (Zhang & Dong, 2011)

Capital ratio indicates how much risk is covered by a bank's capital (Zhang & Dong, 2011). Capital adequacy ratio is a metric to assess a bank's available capital as a percentage of the bank's risk weighted credit exposures. A higher capital ratio indicates has a positive impact on bank performance, especially during economic crises (Zhang & Dong, 2011). A high capital ratio further shows that the bank is creditworthy. Zhang and Dong (2011) indicated that generally the size of a bank positively correlates with its performance, and speculated that it may be because big banks have more market power. However, big banks have huge assets which can be put to extensive use to generate more profits than small banks (Bikker & Hu, 2002; Molyneux & Thornton, 1992)).

Zhang and Dong (2011) were also of the firm belief that the amount of customer deposits a bank is able to gather has a significant impact on the bank's performance. According to them, the more deposits a bank has, the more it is able to expand its business to be more profitable. Deposits are a source of liquidity for banks which enables banks to transact their day-to-day business in the form of providing credit facilities for their clients (Zhang & Dong, 2011). A bank's loan-to-asset ratio also affects its performance as it determines the bank's credit risk exposure (Zhang & Dong, 2011). In terms of credit risk, the bank with a higher loan ratio is in a less favourable position to deal with future liquidity emergencies and therefore will underperform in such a scenario (Miller & Noulas, 1997).

The external determinants of bank performance relate to the system forces that reflect the general economic conditions in the country, which affects the performance and operations of financial institutions (Zhang & Dong, 2011). Usually, the GDP growth rate has a positive impact on bank performance since a good economic outlook is favourable for investment and lending, which contributes to the performance and development of banks (Zhang & Dong, 2011). Interest rates, which are themselves reflective of the general economic outlook in a country, additionally impact bank performance as high interest rates increase bank borrowing costs.

To summarise, rural bank performance is determined by factors internal to the rural banks as well as factors external to them, which they have no control over. Rural banks' performance is influenced by their capital ratio, size, deposits they are able to amass, and also by their credit risk exposure. Furthermore, the performance of rural banks can be influenced by the general economic outlook in the country as assessed by

the GDP growth rate and interest rates. This poses the likelihood that the slump in the GDP growth rate during the COVID-19 pandemic was likely to have affected the performance of rural banks.

## 2.5 Rural Bank Profitability

Profitability is the most popular indicator of performance used by researchers to assess the performance of financial institutions (Albertazzi & Gambacorta, 2009; Flamini, McDonald & Schumacher, 2009; Staikouras & Wood, 2004). Bank profitability was described by Mills and Amowine (2013) as the ability of a bank to earn more revenue than it pays in expenses. It is an important performance indicator which represents the rate of return generated by the bank from the utilisation of resources at its command. A bank that is not profitable is regarded to be underperforming since banks, including rural banks, are highly profit-profit oriented.

The profit of banks mainly originates from services fees charged on services provided, and interests gained from assets. Service fees include charges on money transfer services, maintenance fees, and charges on card services, among several other charges banks apply to the services they provide. Interest on assets comes in the form of interest banks charge on loans and other credit facilities. Other assets include securities, investments, reserves, and physical assets such as buildings and equipment. Bank expenses are usually made in the procurement and maintenance of assets and liabilities. Expenses on liabilities include interest payable on customer deposits. For a bank to be profitable, the payments it receives for its services must outweigh the expenses it makes on assets and liabilities (Mills & Amowine, 2013). Bank profitability is usually assessed using three indicators; Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM).

### 2.5.1 Return on Assets (ROA)

According to Kohlscheen, Murcia and Conteras (2018), return on assets is the simplest and most widely used measure of bank profitability. ROA reflects the capacity of a bank to generate income from its asset management functions (Kohlscheen *et al.*, 2018). It is the measure of a bank's profitability in relation to the bank's total assets. The higher the return, the more efficient the bank is in mobilising its assets (Chouikh & Blagui, 2017). ROA is considered to be the most favourable measure of profitability because it links profitability directly to banks' assets (Kohlscheen *et al.*, 2018). ROA is expressed as the ratio of a bank's net income to average assets. It can easily be derived from the financial statements of banks (Chouikh & Blagui, 2017). The ratio is expressed mathematically below:

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Average Assets}}$$

### 2.5.2 Return on Equity (ROE)

Return on equity measures the profitability of banks in relation to shareholder equity (Lomabardo & Pagano, 2006). It assesses the profit made by the bank per a cedi of shareholder capital. Effectively, ROE measures the capacity of banks to generate profits on the equity capital shareholders have invested in the bank. High ROE indicates high profitability on shareholder capital (Lombardo & Pagano, 2006). ROE is expressed as the ratio of the bank's net income to shareholders' equity. It can also be derived from the financial statements of banks. The ratio is expressed mathematically as:

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Shareholders' Equity}}$$

### 2.5.3 Net Interest Margin (NIM)

Net Interest Margin (NIM) is a measure of bank profitability that assesses the net return on a bank's earning assets which include loans, leases and investment securities (Kumar, 2014). The measurement compares the net interest income of a bank generated from credit products like loans, with the interest it pays on liabilities like savings and deposits. A positive net interest margin indicates that the bank is profitable and vice versa (Kumar, 2014). It is expressed as a ratio of net interest income to earning assets. It is expressed mathematically as:

$$\text{Net Interest Income} = \frac{\text{Interest Returns} - \text{Interest Expenses}}{\text{Average Earning Assets}}$$

## 2.6 Impact of the COVID-19 Pandemic on Rural Banks

Very little is in the literature concerning the impact of the COVID-19 pandemic on rural banks in Ghana. However, through the 2020 annual report of the ARB Apex Bank, the impact of the pandemic on rural banks is conceived. The ARB Apex Bank (2021) reported that at the height of restrictions on movement, during the second quarter of 2020, the profit before tax of rural banks plummeted by some 69.45 percent. However, the ARB Apex Bank (2021) submitted that the deposits and assets of rural banks were not affected negatively by the pandemic, but rather appreciated marginally. This points to the reasoning that the decline in profits was a result of the fact that the rural banks could not operate at an optimum level to generate profits.

Following the immediate aftermath of the lifting of the majority of the restrictions, the Bank of Ghana issued a directive to banks to reduce lending rates to boost the economy. The ARB Apex Bank following the directive reduced its lending rate by 3 percent to rural banks (ARB Apex Bank, 2021). Rural banks also collaborated with the National Board for Small Scale Industries (NBSSI) to administer much needed credit support for struggling businesses. As of the end of the year 2020, rural banks had disbursed over 25 million cedis to SMEs in need of support (ARB Apex Bank, 2021).

During the pandemic, rural banks made extra expenditures to provide staff and customers with personal protective equipment and other sanitation products to avert the

spread of the pandemic on their premises (ARB Apex Bank, 2021). Extra cost was also incurred to test staff frequently to meet the same end. Rural banks also implemented remote working schemes and shift system in an attempt to decongest offices which may have had an effect on productivity (ARB Apex Bank, 2021). The ARB Apex Bank also reported that rural banks reduced interest rates on existing credit facilities, fees and commissions, and offered customers loan repayment moratoriums. Rural banks also sustained credit losses owing to customer defaults and consequential implications on liquidity and asset quality.

According to the ARB Apex Bank (2021), the marked decline in profits of rural banks during the second quarter of 2020 was as a result of the decline in general economic activities during the lockdown and its immediate aftermath. Also, the mini-central bank of rural banks pointed out that the slump was as a consequence of rural banks writing off their investments in Securities and Exchange Commission (SEC) regulated institutions. The ARB Apex Bank (2021) further noted that rural banks faced operational challenges in the form of keeping employees safe and meeting customer expectations.

However, notwithstanding the daunting economic circumstances during the pandemic, rural banks' profits rebounded markedly in the third quarter of 2020, signifying the resilience of the rural banking sector (ARB Apex Bank, 2021). The de facto central bank of rural banks pinned this remarkable rebound on the lifting of the majority of the imposed restrictions.

## 2.7 Review of Related Empirical Studies

Several studies have been conducted on the impact of the COVID-19 pandemic on the performance of banks including rural banks across the world. For instance, Gazi *et al.* (2022) investigated the impact of the pandemic on the financial performance and profitability of banks in Bangladesh. In the study, the performance of banks before the pandemic was assessed using the CAMEL rating system to establish a baseline to assess the impact of the pandemic. The fixed-effect regression model was then used to measure the impact of the pandemic on bank-specific and macroeconomic variables. Findings showed that private commercial banks in Bangladesh during the COVID-19 pandemic experienced a high incidence of non-performing loans and a high amount of hedging capital which reduced their profitability. In contrast, banks were found to have been positively impacted by inflation and low leverage positions, which enhanced their profitability.

Also, Wijana and Widyana (2022) assessed the impact of COVID-19 on Islamic and conventional banks in Indonesia, while comparing the pandemic's impact on the performances of the two banks. First, the researchers compared the performances of the two sets of 80 Indonesian banks before the pandemic struck. Two sample t-tests and a panel regression model were adopted to assess data from the second quarter of 2020 to the second quarter of 2021. The results of the study demonstrated that the pandemic caused more shocks to conventional banks than the Islamic banks. Therefore, the



pandemic had a more devastating impact on the profitability of conventional banks than it had on Islamic banks.

Siska *et al.* (2021) set out to establish the impact of the COVID-19 pandemic on the performance of commercial conventional banks in Indonesia. The study used quantitative and descriptive research approaches to assess the performance indicators of banks, including capital adequacy ratio, return on assets, net interest margin, efficiency, liquidity and risk profile. Like similar studies determining the impact of the pandemic on the performance of banks, secondary data was analysed to establish the performance of banks before the pandemic. Analyses of data collected over an eight-month period indicated a significant difference in all performance indicators of banks except solvency before and after the pandemic. This finding points to the significant impact of the pandemic on the profitability of banks except that the banks remained solvent.

Also, Juniasti (2022) conducted a study to determine whether there were differences in the performance of rural banks before and during the COVID-19 pandemic. The study utilised data from June 2018 to September 2021 to six performance indicators of rural banks including return on assets, non-performing loan ratio, capital adequacy ratio, operating expenses to operating income, cash ratio, and loan to savings ratio. The quantitative study used the financial reports of banks to arrive at these ratios. Findings demonstrated significant differences before and during the pandemic in three ratios including return on assets, operating expenses to operating income, and capital adequacy ratio. However, findings indicated no difference in cash ratio, non-performing loans, or loans to savings ratio between the two periods. The findings signify that the pandemic impacted the performance indicators in which differences were recorded and vice versa. Hassan (2022) investigated the impact of the pandemic on the financial performance of Indonesian Sharia Rural Bank. The researcher adopted the descriptive-quantitative research approach to measure the impact of the COVID-19 pandemic on the rural bank's key performance indicators such as Capital Adequacy Ratio (CAR), Return on Assets (ROA), Return on Equity (ROE), Non-Performing Financing (NPF), and Fixed Deposit Receipts (FDR). Data was derived from the financial statements of the rural bank between 2018 and 2021. Results revealed that though the financing composition of the bank is still dominated by non-PLS financing, the performance of the bank during the pandemic was relatively good since all performance indicators met the standards of regulators.

Bobade and Alex (2020) assessed the impact of the COVID-19 pandemic on the Indian banking sector by evaluating the financial performance of banks during the pandemic. The study which was largely based on the analysis of secondary data revealed that the COVID-19 pandemic nearly collapsed the Indian banking sector at its peak. This came in the form of widespread non-performing assets, bad loans, and customer fraud. The researcher attributed this near collapse of the sector to the complete shutdown of businesses and economic activity during the pandemic.

Katusiime (2021) assessed the effect of the COVID-19 epidemic on the success of Ugandan banks. To test for co-integration, the study used the autoregressive distributed lag (ARDL Bound) testing approach after correcting for bank- and macroeconomic-

specific profitability determinants. ROA, ROE, and NIM served as proxies for performance. The analysis found that the COVID-19 outbreak had a significant negative effect on bank profitability only over the long term. Although the explanatory variables used in the study did not have a consistent impact on bank profitability across all measures, they did have both short- and long-term effects. The ratio of non-performing loans, the liquidity ratio, and the risk of market sensitivity had a significant negative influence on bank profitability in the near term, whereas the interest rate on Treasury bills and the lending rate had a significant positive impact. In the short term, profitability showed a moderate tendency to persist, suggesting that the Ugandan banking sector did not show any notable departures from a completely competitive market structure. Long-term effects on bank profitability were favorable and significant for the non-performing loan ratio, real GDP, lending rate, and interest rate on treasury bills, but negative and significant for market sensitivity risk and exchange rate. Surprisingly, the study found that both in the short and long terms, inflation has no impact on bank profitability.

In addition, Obeidat *et al.* (2021) looked at how the pandemic affected Jordanian banks' performance. The authors used their analysis of the financial statements of all Jordanian listed banks' ROA and NIM to meet the study's objectives. The information was gleaned from the banks' 2010–2020 financial filings. Findings showed that the pandemic caused the profitability of listed Jordanian banks to decline by almost 48 percent. Regarding the econometric results, it's important to note that although if loan loss provisions had a negative and significant influence on bank profitability, this "cost" was, at least in part, transferred to bank customers in the form of higher financial intermediation costs.

Reviewed empirical studies, to a large extent, point to the notion that the COVID-19 pandemic had a significant negative impact on the performance and profitability of banks, even though a few studies made findings to the effect that such a decline in profitability was not devastating.

## 2.8 Statement of Hypotheses

Based on the reviewed literature, it can be deduced that the COVID-19 pandemic negatively affected the profitability of banks. It is therefore hypothesized that:

**H1:** The COVID-19 pandemic had a negative effect on the ROA of rural banks in the Greater Accra and Greater Kumasi areas.

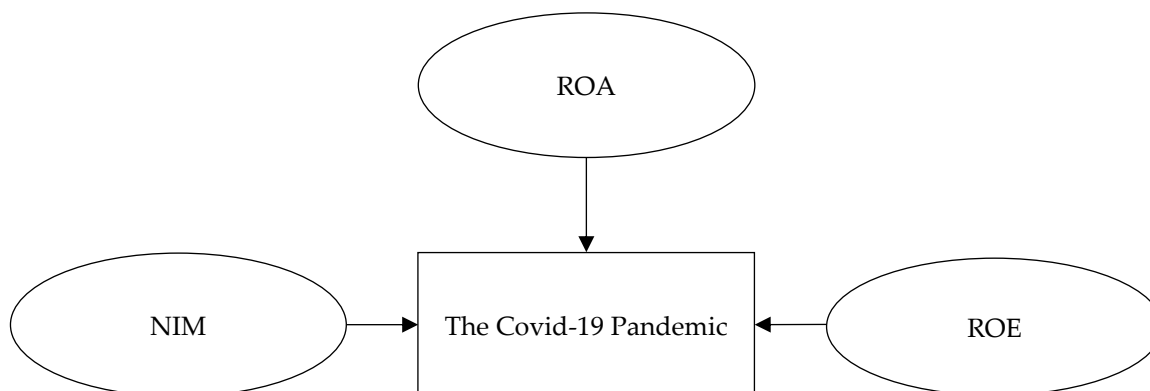
**H2:** COVID-19 had a negative effect on the ROE of rural banks in the Greater Accra and Greater Kumasi areas.

**H3:** COVID-19 had a negative effect on the NIM of rural banks in the Greater Accra and Greater Kumasi areas.

## 2.9 Conceptual Framework of the Study

The conceptual framework of the study is based on the documented effect of the COVID-19 pandemic on the profitability and operations of rural banks. The ARB Apex Bank (2021) stated that rural banks faced operational challenges during the pandemic. Also,

the bank recorded a decline in the profits of rural banks during the pandemic. The study investigates the impact of the pandemic on the operations of rural banks, as well as their profitability as represented by their ROA, ROE, and NIM. The conceptual framework of the study is illustrated in Figure 2.1 below:



**Figure 2.1:** Conceptual Framework of the Study

### 2.10 Session Summary

The session began by presenting an overview of rural banks with respect to their functions, operations, legal and regulatory frameworks, and also their products and services. The importance of rural banks to rural economies and the national economy was also established in the literature. Further, the COVID-19 pandemic was reviewed both on the global stage and on the Ghanaian scene, underscoring the economic havoc it wreaked on the global and Ghanaian economies. Additionally, the session detailed the concepts of performance and profitability of banks. Furthermore, the impact of the pandemic was reviewed with specific reference to rural banks in Ghana. Related empirical studies were also reviewed in a detailed fashion. In a nutshell, the session presents a comprehensive review of

## 3. Methodology

### 3.1 Introduction

This session presents the procedure and statistical steps by which the study's aims were achieved. It details the design of the study, the study population and sample, the sources of data, how data was derived, data analysis, the ethical considerations, and brief profiles of the rural banks involved in the study.

### 3.2 Research Design

According to Berman *et al.* (2000), the design of a study consists of the framework that dictates the procedures for the collection and analysis of data. The study utilised the descriptive, cross-sectional quantitative research design to determine the effect of the pandemic on the profitability of rural banks in the target areas. The descriptive approach

was chosen because the study intends to describe or paint an accurate picture of the pandemic's impact on the profitability of rural banks. The cross-sectional approach was used because the research did not have any futuristic orientations that would have warranted the adoption of a longitudinal approach.

Also, the quantitative approach was thought best for the study because as asserted by Bryman (2016), the approach is aimed at the collection and analysis of numerical data to explain a phenomenon. The study aimed to collect numerical data in the form of figures or data from the financial statements of the rural banks involved in the study and analyse such data to ascertain the impact of the pandemic on the profitability indicators of the selected rural banks.

### **3.3 Sources of Data**

The study primarily utilised secondary sources of data. In the view of Rabiński (2003), secondary sources of data involve information collected by someone else, and likely to have been used before. The study utilised data from the financial statements of the rural banks, which consisted of data already gathered by the rural banks, and likely to have already been used by other researchers. The financial statements were retrieved from the websites of the rural banks.

### **3.4 Population**

The population of a study is the target group or subject from which the research sample is selected. Meridith *et al.* (1989) described population as the group of individuals or entities in which a researcher is interested. In the study, rural banks in the Greater Accra and Greater Kumasi areas formed the population of the study, as the researcher was interested in rural banks in those two areas. This is because these areas recorded the most COVID-19 cases in the country, and were subject to the most stringent restrictions on movements in the country involving the lockdown. As a result, it is expected that rural banks in these areas in these areas would be most affected by the pandemic, owing to the slowdown in economic activities.

### **3.5 Sample and Sampling Technique**

The sample of the study involves three rural banks in the Greater Accra and Greater Kumasi areas including La Community Rural Bank, Okomfo Anokye Rural Bank, and Atwima Mponua Rural Bank. The study utilised the convenience sampling technique to select the rural banks, which involves selecting members of the study population who are available or convenient to the researcher (Etikan, Musa & Alkassim, 2016). During sampling, only rural banks within the population who had published financial statements from the years ending 31st December 2018 to 31st December 2020 were sampled. This is because in determining the impact of the pandemic on the profitability of rural banks, the study aims to analyse the financial statements from 2018 to 2019 as the benchmark for the performance of rural banks in 2020, which is the year the pandemic struck.

### **3.6 Procedure and Data Analysis**

The study involved studying the financial statements of rural banks from the year 2018 to 2020. The ROA, ROE, and NIM were calculated in Microsoft Excel. The averages of the performance indicators from 2018 to 2019 were calculated to serve as a basis for comparison with that of the year 2020. The two-sample t-test was adopted to examine the difference between the two sets of performance indicators. Also, the difference in growth of the performance was assessed using the two-sample t-test.

### **3.7 Profile of Rural Banks**

#### **3.7.1 La Community Rural Bank**

The town's youth founded the community-based La Town Development Association in 1979 to mobilize local resources for community development. The creation of a community bank was one of LMK's projects. The Association officially requested assistance from the American African Development Foundation, or ADF, for the creation of the Bank in 1984. The request was reviewed and accepted by ADF in 1985, and an amount of US\$164,561 was given to LMK to cover the cost of renovation, furniture, stationery, and equipment, as well as an additional US\$83,103 for a revolving fund. After obtaining a Bank of Ghana license, the bank opened to the public on November 3rd, 1987. The residents of La had been asked to subscribe for shares of the Bank before it opened. The response was tremendous. The 184,500 shares offered to the people of La were fully subscribed, with LMK accepting 48,350 shares. Therefore, the Bank can legitimately be called a bank of the people of La, with the people continuously keeping an interest in the bank.

#### **3.7.2 Okomfo Anokye Rural Bank**

The Okomfo Anokye Rural Bank Ltd (OARB) was established as a limited liability company on January 18, 1983, and a certificate of incorporation (No. 21,793) was granted as a result. The Bank of Ghana granted OARB a license to conduct banking business on February 7, 1983. The Registrar Department issued the bank its certificate to open for business on July 6, 1983. Okomfo Anokye Rural Bank has relationships with ARB Apex Bank Limited, Consolidated Bank Ghana, and Ecobank. The bank's headquarters can be found at Wiamoase. The bank has nine locations, all of which are in Kumasi, together with a mobilization center.

#### **3.7.3 Atwima Mponua Rural Bank**

Atwima Mponua Rural Bank was founded in 1984 by some individuals within the Atwima Mponua District to provide essential banking services to the people of the district. The bank has 6 branches including its headquarters located at Toase. The Bank offers its clients all Bank services attributable to rural banks, including susu services.

## 4. Results

### 4. Introduction

The study was intended to examine the impact of COVID-19 on the performance of rural banks in Greater Accra and Ashanti Region. Data was obtained from the financial statements of three banks from Greater Accra and Ashanti Region. Using a Dependent sample T-test the researcher compared the performance of these banks before the onset of the COVID-19 pandemic and during the COVID-19 pandemic.

### 4.1 Preliminary Analysis

**Table 4.1:** Descriptive Statistics

	Pre-Pandemic Period (2018-2019)				During-Pandemic (2020)			
	Mean	Min	Max	SD	Mean	Min	Max	SD
ROA	4.334	-.33	9.96	5.214	1.6584	-.17	4.45	2.458
ROE	44.843	-10.07	101.81	55.965	14.044	-5.18	35.36	20.352
NIM	13.260	12.42	14.72	1.265	12.770	10.70	15.63	2.559

The table above captures the descriptive statistics of return on assets, return on equity and net interest margin. From the table it can be observed that the mean values of all the variables observed decreased during the pandemic period. The finding indicates that banks' profitability generally decreased during the pandemic period.

### 4.2 Pre-Pandemic and During-pandemic differences in ROE, ROA and NIM

**Table 4.2:** Summary of the dependence sample t-test comparing pre-pandemic and during-pandemic performance on return on assets, return on equity and net interest margin

Variables	Mean	SD	t	Sig
<b>Return on Assets</b>				
Pre-pandemic	4.334	5.214	.809	.503
During-pandemic	1.658	2.458		
<b>Return on Equity</b>				
Pre-pandemic	44.843	55.965	1.036	.409
During-pandemic	14.044	20.352		
<b>Net Interest Margin</b>				
Pre-pandemic	13.260	1.265	.262	.818
During-pandemic	12.770	2.559		

The outcome of the dependent sample t-test that compared the mean score of return on assets of pre-pandemic and during-pandemic showed that pre-pandemic return on assets ( $M = 4334$ ,  $SD = 5.214$ ) of rural banks was higher than during-pandemic ( $M = 1.658$ ,  $SD = 2.458$ ). This difference was, however, not strong enough to yield any statistical significance [ $t = .809$ ,  $p > 0.05$ ]. Therefore, the return on assets of rural banks during the pre-pandemic and pandemic periods did not differ significantly. Hence, the conclusion

to this result is that the COVID-19 pandemic did not affect the ROA of rural banks in the country, which leads to the rejection of the first hypothesis which predicted that the pandemic will have a negative impact on the ROA of rural banks.

The test also showed that rural banks' performance on return on equity was higher pre-pandemic ( $M = 44.843$ ,  $SD = 55.965$ ) than during the pandemic ( $M = 14.044$ ,  $SD = 20.352$ ). Again, this difference did not yield any statistical significance [ $t = .1036$ ,  $p > 0.05$ ]. Therefore, the return on equity of rural banks during the pre-pandemic and pandemic periods did not differ significantly. Hence, the conclusion to this result is that the COVID-19 pandemic did not affect the ROE of rural banks in the country. This leads to the rejection of the second hypothesis, which had it that the COVID-19 pandemic would adversely impact the ROE of rural banks in the country.

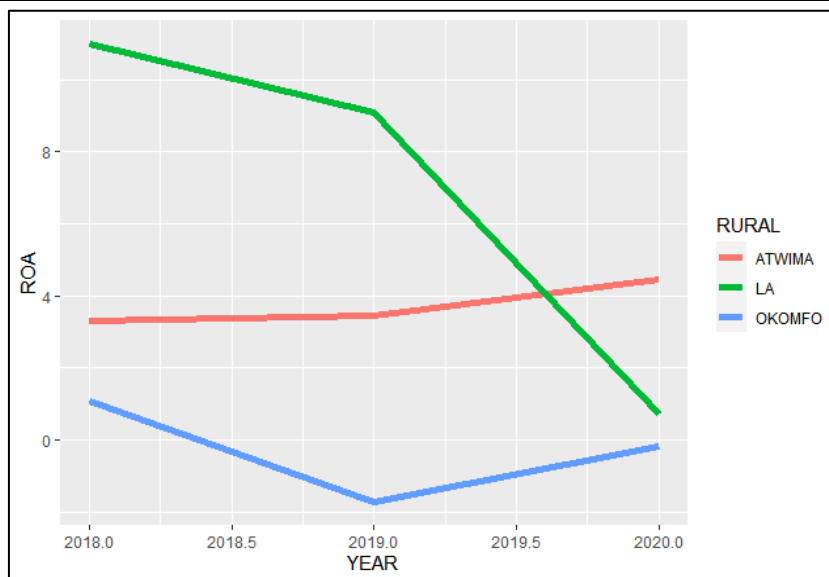
Finally, the dependent sample T-test on the net interest margin indicated that rural banks' net interest margin was higher pre-pandemic ( $M = 13.60$ ,  $SD = 1.265$ ) than during the pandemic ( $M = 12.770$ ,  $SD = 2.559$ ). Again, the result yielded was not statistically significant [ $t = .262$ ,  $p > 0.05$ ]. Therefore, the net interest margin of rural banks during the pre-pandemic and pandemic periods did not differ significantly. Hence, the conclusion to this result is that the COVID-19 pandemic did not affect the NIM of rural banks in the country. This leads to the rejection of the third hypothesis, which had it that the COVID-19 pandemic will adversely impact the NIM of rural banks in the country.

### **4.3 Comparing the Individual Performances of Rural Banks over the Pre-Pandemic and Pandemic Periods**

Though aggregately, the performances of the banks dwindled during the pandemic years, it is important to highlight the individual performances of the rural banks.

#### **4.3.1 Return on Assets**

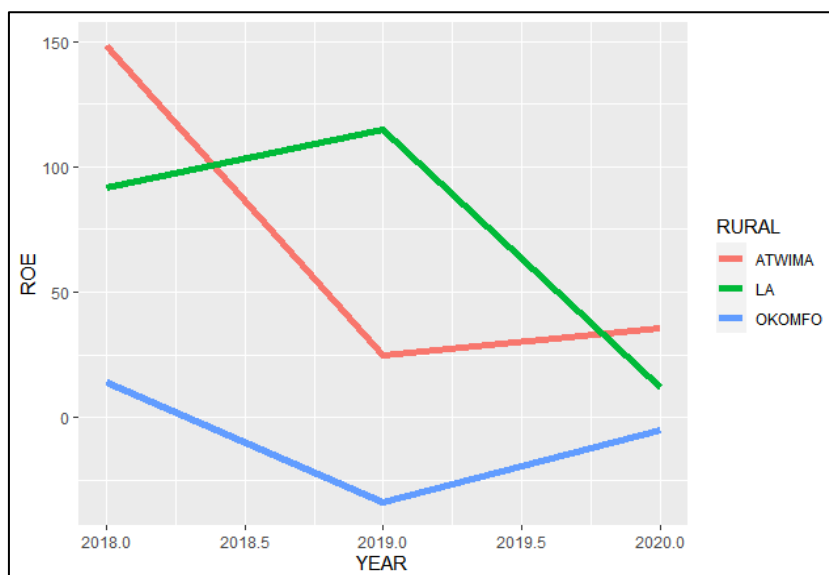
The three rural banks under the scope of the study performed differently, on return on assets over the two periods. However, Atwima Mponua Rural Bank and Okomfo Anokye Rural Bank performed more like each other, as they both experienced an increase in return on assets during the pandemic year. Notwithstanding, unlike Atwima Mponua Rural Bank, Okomfo Anokye Rural Bank's increase in ROA was on the back of a decrease during the pre-pandemic years. La Community Rural Bank on the other hand saw a steep decrease in ROA during the pandemic year.



**Figure 4.1:** The Return on Assets of Individual Rural Banks

### 4.3.2 Return on Equity

Just as the performance on ROA, Atwima Mponua Rural Bank and Okomfo Anokye Rural Bank experienced increases in their ROE during the pandemic year. However, in the case of the ROE, both rural banks were experiencing dwindling returns before the pandemic hit. In contrast, the La Community Rural Bank, which was experiencing increasing returns in terms of ROE pre-pandemic, faced reduced ROE during the pandemic.

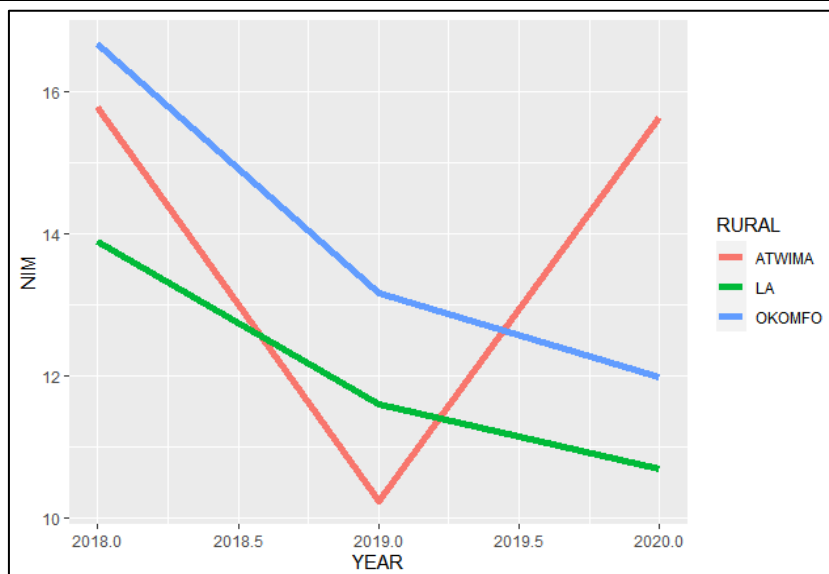


**Figure 4.2:** The Return on Equity of Individual Rural Banks

### 4.3.3 Net Interest Margin

Concerning Net Interest Margin, La Community and Okomfo Anokye Rural Banks both witnessed a decrease in profits. In contrast, Atwima Mponua Rural Bank witnessed a sharp increase in NIM in 2020 from 2019.





**Figure 4.3:** The Net Interest Margin of Individual Rural Banks

## 5. Summary of Results, Discussions, Limitations, Conclusion, and Recommendations

### 5.1 Introduction

This session summarises the findings of the study, and discusses the findings in relation to reviewed literature. The conclusion of the study, limitations and recommendations for future research are also presented in this session.

### 5.2 Summary of Findings

The study set out to determine the impact of the COVID-19 pandemic on the performance of rural banks in Ghana using return on assets (ROA), return on equity (ROE), and net interest margin (NIM) as performance indicators. The study made the following findings:

- 1) The COVID-19 pandemic did not significantly impact the ROA of rural banks in Ghana.
- 2) The COVID-19 pandemic did not significantly impact the ROE of rural banks in Ghana.
- 3) The COVID-19 pandemic did not significantly impact the NIM of rural banks in Ghana.

### 5.3 Discussion of Findings

The aim of the study was to assess the impact of the COVID-19 pandemic on the performance of rural banks in Ghana, using ROA, ROE, and NIM as performance indicators. The study found that the pre-pandemic and during-pandemic ROA, ROE, and NIM of the rural banks in the country did not differ, implying that the COVID-19 pandemic did not impact any of the performance indicators of the rural banks. This signifies that the pandemic did not have a significant effect on the performance of rural banks, even though some downturn in performance was detected during the pandemic.

The finding that the ROA of rural banks was not affected by the onset of the COVID-19 pandemic reflects the capacity of rural banks to generate income from its asset management functions even in the face of adversity. The fact that the pandemic did not have a significant impact on the ROE of rural banks can be explained to mean that rural banks have the capacity to put shareholder funds to effective use in the face of challenges. Furthermore, the result of the effect that the pandemic did not negatively impact NIM demonstrates that rural banks' earning assets like loans and investment securities continued to earn interest in the face of the pandemic.

The findings of the study ultimately mean that the COVID-19 pandemic did not have a significant adverse impact on the performance of rural banks in Ghana, as illustrated using ROA, ROE and NIM as performance indicators. This could mean that rural banks, being largely based in relatively more rural areas were not subject to harsh restrictions that were imposed on the more urban areas of Accra, Greater Kumasi and Kasoa. In other words, rural banks were likely to have been supported by the rural economies which were relatively unaffected by lockdowns and other restrictions on movement that were imposed during the pandemic.

This may be demonstrable in the finding that the La Community Rural Bank, based in the largely urban Accra, suffered more hit to its performance than Atwima Mponua and Okomfo Anokye Rural Banks. Put differently, Atwima Mponua Rural Bank and Okomfo Anokye Rural Bank performed way better than La Community Rural Bank, which is based in Accra, and hence more likely to have been hit by the pandemic, as the capital was the epicentre of the COVID-19 pandemic. However, the finding could also mean that rural economies bounced back faster than urban economies, which may have fuelled the performance of rural banks during the pandemic.

Nevertheless, the study finding that the pandemic did not significantly impact the performance of rural banks in the country is in line with the reportage of the ARB Apex Bank (2021) that the deposits and assets of rural banks were not impacted by the adverse conditions brought about by the pandemic, but rather increased. This implies that the rural banks were able to manage their assets effectively to avoid making losses. This could also be interpreted to mean that rural banks bounced back in a speedy manner to recover from the 69.45 percent drop in profits before tax reported by the ARB Apex Bank (2021) in the second quarter of 2020. In fact, this aligns with the reportage of ARB Apex Bank (2021) that the performance of rural banks rebounded speedily in the third quarter of 2020 owing to the lifting of the imposed restrictions.

Further explanation of the finding that the pandemic did not adversely impact the performance of rural banks may have it that the reduction of the lending rate of rural banks, pursuant to a directive of the Bank of Ghana (ARB Apex Bank, 2021), did not significantly affect the fortunes of rural banks in the country. This also indicates that the extra cost incurred by rural banks to provide protective gear for staff and test staff on a frequent basis did not affect the financial performance of rural banks in the country. The reduction of interest rates on existing loans, fees and commissions did not impact the financial performance of rural banks in Ghana, according to the findings of the study.

Regarding the performance of individual rural banks in the study, it could be said that the reduction, yet insignificant downturn of performance during the COVID-19 pandemic found in the study, was largely driven by the abysmal performance of La Community Rural Bank. However, the strong performances of Atwima Mponua Rural Bank and Okomfo Anokye Rural Banks cancelled out the contrasting performance of La Community Rural Bank.

To a large extent, the findings of the study are in consonance with the findings of related empirical studies. For example, the study by Bobade and Alex (2020) found that the pandemic nearly collapsed the Indian banking industry due to high non-performing loans, and Obeidat *et al.* (2021) found that the profitability of banks in Jordan fell by 48 percent. However, the study's findings align with that of Hassan (2022) who made the finding that the performance indicators of Indonesian Sharia rural banks met the standards of regulators during the pandemic.

#### **5.4 Conclusion**

The COVID-19 pandemic had a devastating impact on the Ghanaian economy. However, as demonstrated by the findings of this study, the pandemic did not adversely impact the financial performance of rural banks in the country. This is owing to the resilience of rural banks as they bounced back from their poor performance in the second quarter to the third quarter of 2020. This could mean that the rural economy was largely unaffected by the lockdown and other restrictions on movement imposed by the government in the wake of the pandemic. The takeaway from the findings of the study is that rural banks, in the face of the pandemic, were robust and resilient in playing the crucial role they have in assisting and supporting SMEs and the rural economy.

#### **5.5 Limitations of the Study**

The study was without many limitations. The prominent and most apparent limitation of the study is the small sample size, as the study utilised financial data from only 3 rural banks in the entire country. It would have been ideal for the research to utilise data from more rural banks across several years. However, rural banks in the country, unlike universal banks rarely publish annual financial statements. Within the population of the study, the researcher found only 3 rural banks that have published their 2018, 2019 and 2020 financial statements, which were utilised by the researcher. This small sample size of the study may affect the veracity and representativeness of the study's findings. Notwithstanding, the findings of the study are based on accurate and audited financial data and are largely in alignment with the literature.

#### **5.6 Recommendations for Future Research**

The study's recommendation for future studies is based on the limitations of the study. Future researchers on the subject matter should attempt to include a larger sample size than the one in this study. This will make findings more representative of the study population. Future researchers on the topic should try alternative means of retrieving

financial data from rural banks and other financial institutions that may be involved in their studies. They should try and visit or contact rural banks for financial data, as that may yield results, even though they may be unwilling to give up such data.

### **About the Authors**

**Mr. Seth Evans Kwakye** who is employed at Access Bank Ghana Limited, is a very capable and driven individual. Mr. Kwakye has a solid academic background that has equipped him for his position as an assistant team lead with the Data and Analytics team in the contact center. He holds a master's degree in development finance with a focus on finance and risk management from the University of Ghana Business (UBGS) and a bachelor's degree in accounting from Central University. Mr. Kwakye is very interested in how organizational transformation affects employee productivity in accomplishing organizational objectives. He is adamant that organizational reform may spur increased employee productivity and organizational success. He is dedicated to researching and using cutting-edge tactics that make sure the unit runs without a hitch. The knowledge of Mr. Kwakye in the areas of finance and organizational development has been acknowledged by his peers and colleagues. He is renowned for his remarkable planning and organizing abilities as well as for his capacity to create and put into practice efficient Analytics policies and procedures. The success of numerous efforts relating to organizational change has been greatly attributed to Mr. Kwakye's outstanding interpersonal and communication skills. Mr. Seth Evans Kwakye is an accomplished person who has a keen interest in the effects of organizational transformation, in general. He is an asset to any firm due to his in-depth understanding of the subject and his many years of relevant expertise.

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