

# **An Assessment of Covid-19 and Financial Inclusion: A Case of Ghana**

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## **Abstract**

This paper investigates the impact of the COVID-19 pandemic on financial inclusion in Ghana and its policy implications. The research employed a quantitative survey design to collect and analyse data, assessing the equality of opportunity to access financial services and the effects on their availability. Using primary data from 550 participants, we examine the pandemic's influence on various aspects of financial inclusion. The study reveals that certain factors, such as physical bank locations, ATMs, and SMS services, showed limited improvements during the pandemic, while digital financial services, including electronic and internet banking, witnessed increased demand. In terms of availability, the odds favored banking services, but insurance and capital markets showed weaker associations with the pandemic's progression. Policy implications include the need to expand digital financial services, leverage government payments, and develop a National Financial Inclusion Strategy. Additionally, policies should empower consumers with information and skills for informed financial decisions.

## **1. Introduction**

The COVID-19 pandemic has emerged as a distinctive crisis with multifaceted implications (Borio, 2020). While it has wrought havoc in various aspects of human life, it has also prompted unexpected improvements. In the realm of business, COVID-19 has compelled numerous enterprises, traditionally offline, to harness the power of the internet for business expansion and to garner increased patronage (PWC, 2020). Across Africa, a shift towards remote work has extended to sectors such as banking, where transactions were traditionally conducted in physical branches. Now, clients can

perform deposits and withdrawals using their mobile phones, tablets, and computers (International Finance Co-operation, 2018). In Ghana, many churches have adopted online platforms and social media to connect with their members for worship, regardless of their geographical locations. Even in governance, politicians and government officials have adapted to virtual meetings using tools like Microsoft Webex, Zoom, and Skype. The banking industry, too, has transitioned to conducting a significant portion of their operations online (PWC, 2020).

However, certain domains have yet to be thoroughly assessed concerning the gains and losses brought about by this transformative period. A prime example is financial inclusion, which now entails not just access to financial services but access to products and services that are convenient, affordable, suitable for the user's circumstances, and accompanied by legal and supervisory safeguards, including consumer protection, deposit insurance, and regulatory oversight (Iordachi & Ciobu, 2020). Notable progress has been made toward financial inclusion, with 1.2 billion adults' worldwide gaining access to financial accounts since 2011 (The World Bank, 2018). Presently, 69% of adults possess financial accounts. Nonetheless, nearly one-third of adults (1.7 billion) remain unbanked, as per the most recent Findex data (Magaldi-De-Sousa, 2015). Over 55 countries have made commitments to enhance financial inclusion since 2010, with more than 60% having initiated or are in the process of developing national strategies, and Ghana is no exception. The 2015 Financial Inclusion Insights (FII) survey highlights a 41% increase in access to formal financial services since 2010 (Dorofeiev, 2019). Consequently, financial exclusion has nearly halved, witnessing a 43% reduction in five years, signifying a significant accomplishment for the country.

Participation in the financial sector has continued to rise, especially with the introduction of electronic money services, such as mobile money, internet banking, and money transfer services (Maurer, 2012). However, the key question remains whether COVID-19 has diminished the progress achieved in financial inclusion or, conversely, propelled greater inclusivity. This study aims to assess the state of financial inclusion in the midst of the COVID-19 pandemic. Specifically, it seeks to investigate the equitable access to financial services during COVID-19, the impact of the pandemic on the availability of financial services, and explore potential avenues for further advancing the gains made during the pandemic, if any, using primary data.

Historically, assessments of financial inclusion have relied heavily on secondary data, offering a broad, macro-level perspective. Yet, at the micro level, valuable lessons can be learned, particularly in the context of policies and programs aimed at enhancing financial inclusion. Therefore, this study adopts a primary data approach to delve into the micro-level effects.

The objective of this study is to assess the state of financial inclusion during the COVID-19 pandemic, specifically examining equitable access to financial services, the pandemic's impact on the availability of financial services, and identifying potential strategies to further advance financial inclusion using primary data at the micro level.

This study contributes significantly to the existing literature in several ways. Firstly, it addresses a critical gap in the research by focusing on the micro-level effects of the COVID-19 pandemic on financial inclusion, complementing the predominantly macro-level assessments conducted historically. By adopting a primary data approach, it offers insights into the intricate, localized dynamics of financial inclusion, providing a deeper understanding of how individuals and communities are experiencing this transformative period. Secondly, it contributes to the ongoing discourse surrounding the evolution of financial services and access, especially in the context of the pandemic. The study not only examines the equitable access to financial services during COVID-19 but also delves into the impact of the pandemic on the availability of these services, shedding light on how innovations in electronic money services have shaped the financial landscape. Thirdly, the research seeks to identify potential strategies for further advancing financial inclusion during the pandemic, recognizing the importance of addressing the challenges and opportunities that have emerged. This insight is invaluable for policymakers, financial institutions, and organizations aiming to enhance financial inclusion in the current context. Ultimately, this study provides a comprehensive and nuanced understanding of the effects of COVID-19 on financial inclusion, making it a valuable resource for academics, practitioners, and policymakers in the fields of finance, economics, and development.

## **2. Literature Review**

Financial inclusion serves as an integral component of economic inclusion, playing a pivotal role in advancing overall economic growth and development. Although the

United Nations' 17 Sustainable Development Goals (SDGs) do not explicitly mention financial inclusion, achieving many of these goals, including those addressing poverty, hunger, health, education, gender equality, economic growth, and reduced inequality, is intricately linked to financial inclusion (United Nations, 2015). UN member states employ the Global Financial Inclusion (Global Findex) database as a tool to assess progress towards sustainable development goals.

The significance of enhancing financial inclusion gained heightened importance during the COVID-19 pandemic when a substantial portion of the global population faced lockdowns. Preliminary assessments from the International Labor Organization (ILO) indicated that 25 million individuals lost their jobs and livelihoods due to the pandemic (ILO, 2020). Nevertheless, individuals still needed to engage in economic activities to survive, necessitating a concerted effort from governments and financial institutions to ensure greater access to financial services for low-income individuals and households, thereby ensuring their survival during these challenging times (Ozili, 2020; Tarek Eldomiaty, 2020). Consequently, the issue of equitable access to financial information and services became paramount.

Numerous interventions aimed at bolstering financial inclusion emerged during the pandemic. Digital financial services allowed governments and institutions to swiftly and securely deliver financial support to individuals and businesses that were otherwise challenging to reach. Lockdowns and social distancing measures expedited the adoption of digital financial services (Ross et al, 2021). Various countries, including Liberia, Ghana, Kenya, Kuwait, Myanmar, Paraguay, and Portugal, responded by reducing fees and raising limits on mobile money transactions, thereby facilitating the transition to digital financial transactions (Ross et al, 2021). The pandemic's impact underscores the enduring significance of digital financial services in the post-COVID era. Achieving the potential of digital financial services requires several key factors to align, including equitable access to digital infrastructure, greater financial and digital literacy, and mitigating data biases for a more inclusive recovery (Ross et al, 2021). Notably, the pandemic disproportionately affected the economically disadvantaged, who often lacked access to financial services and online banking.

Globally, various financial inclusion initiatives were launched. For instance, Malaysia introduced digital payment systems and expanded the availability of physical facilities

like Shared Automated Teller Machines (SATM/SAN), Bank-to-Bank GIRO, and Financial Process Exchange (AFI, 2021). These measures encouraged social distancing and efficient digital payments, which were not previously widespread. Furthermore, efforts were made to strengthen agent banking activities, enabling financial transactions even during movement restrictions. Rural areas, for the first time, gained access to ATMs and Mobile ATMs for government support funds. The Bank of Negara in Malaysia reported a significant uptick in mobile and non-mobile basic transactions in 2020, amounting to 17 million transactions (Alliance for Financial Inclusion, 2021).

Fiji and Uganda also witnessed the introduction of nationwide payment systems by their respective central banks, aimed at boosting digital payment transactions and involving the unbanked population in banking activities (Bank of Fiji Report, 2020; Bank of Uganda Report, 2020). In the Congo Republic, electronic wallet transaction limits were raised to \$7,500, and the central bank temporarily waived fees for the first five daily transactions (Bank of Congo Report, 2020). Togo experienced a 7% growth in mobile penetration rate, reaching 180,000 new mobile users in 2021, largely due to infrastructure improvements for digital transactions (Alliance for Financial Inclusion, 2021).

In Ghana, the Bank of Ghana (BOG) implemented a series of measures to bolster financial inclusivity. The primary reserve requirement was reduced from 10% to 8%, injecting liquidity into banks to support critical economic sectors (Opoku-Afari, 2021). Targeted reserves for small and medium enterprises under the Enterprise Credit Scheme were extended to all critical sectors. A 1.5% reduction in the Capital Conservation Buffer (CCB) enabled banks to provide economic support. The provisioning for loans in the "Other Loans Especially Mentioned" (OLEM) category was lowered from 10% to 5% for all banks and Specialized Deposit-Taking Institutions (SDIs) to accommodate loans facing repayment challenges due to an economic slowdown.

These measures led to a noticeable increase in remote and digital transactions and a degree of financial inclusiveness. The activation of dormant accounts or wallets surged by an average of about 85% per week, with activations increasing from 71,984 per week before the pandemic to 84,025 per week (Bank of Ghana, 2021). Simplified

onboarding requirements, leveraging GSM registration data, contributed to the establishment of 208,120 new KYC accounts. Average wallet balances increased by approximately 27% during the intervening period. Additionally, the number of active merchants grew by 14%, indicating a growing acceptance of digital payments by businesses (Bank of Ghana, 2021).

The existing literature acknowledges the significance of financial inclusion in the context of economic development, particularly in achieving sustainable development goals. It also highlights the importance of digital financial services, especially during the COVID-19 pandemic, and mentions various initiatives and measures taken by countries to enhance financial inclusion. However, there remains a gap in the literature concerning a comprehensive assessment of the micro-level effects of these initiatives on financial inclusion during the pandemic. This study seeks to address this gap by employing primary data to provide a more detailed and nuanced understanding of the impact of COVID-19 on equitable access to financial services and the effectiveness of various interventions at the individual and community levels.

### **3. Methodology**

#### *3.1 Research Design and Study Population*

This research employed a survey design with a quantitative approach. The study population consisted of Small and Medium-sized Enterprises (SMEs) in Bantama, Kumasi, Ghana, and the banking personnel from three financial institutions: Stanbic Bank, Ghana Commercial Bank, and Cal Bank, all located in Adum, Ashanti region, Ghana.

#### *3.2 Sample Selection and Sampling Technique*

The sample size for this study included five hundred and fifty (550) SMEs in Bantama, Kumasi, and forty (40) employees from Stanbic Bank, Ghana Commercial Bank, and Cal Bank in Adum, Ashanti region, Ghana. A complex sampling technique was applied in this research. Specifically, a non-probability sampling method called purposive simple random sampling (Cofie, 2012) was employed to select the three financial institutions. For the selection of SMEs, a simple random sampling technique was utilized. The determination of the appropriate sample size was based on the methods outlined by Bartlett et al. (2001).

### *3.3 Data Sources and Data Collection Procedures*

This study relied on primary data sources to investigate the impact of COVID-19 on financial inclusion. The study was conducted among SMEs in Bantama and the banking staff of Stanbic Bank, Ghana Commercial Bank, and Cal Bank in Adum, Ashanti region, Ghana. Structured questionnaires were distributed to both SMEs and banking staff. Adequate time was allocated for the completion of the questionnaires, and once completed, the questionnaires were collected for subsequent analysis.

### **3.4 Data Analysis**

The collected data were subjected to analysis using Statistical Package for the Social Sciences (SPSS) version 23.0. To assess the effects of COVID-19 on the equality of opportunities to access financial services, the study utilized a modified canonical correlation analysis. This analysis considered two sets of variables: physical infrastructure access and non-physical access. Variables representing physical access included the presence of convenient bank branches, reliable ATMs, accessible ATMs, and electronic banking facilities. Non-physical access variables encompassed SMS services, competitive interest rates, fee-free services, and internet banking availability.

For investigating the effects of COVID-19 on the availability of financial services, the study adopted odds ratios as a measurement of the degree of favor or disfavor of availability. A justification for the selected analysis is provided as follows. Firstly, the study employs a quantitative approach, which is well-suited to assess the effects of COVID-19 on financial inclusion. Quantitative methods provide the necessary tools to measure and analyze the impact in a structured and systematic manner, allowing for statistical comparisons and hypothesis testing. Secondly, the use of the Statistical Package for the Social Sciences (SPSS) is appropriate for handling and analyzing survey data. SPSS is a widely used and reliable software package for statistical analysis, ensuring data accuracy and facilitating complex statistical procedures. The decision to use canonical correlation analysis to assess the effects of COVID-19 on the equality of opportunities to access financial services is logical because it enables the examination of relationships between two sets of variables. In this case, it allows for the exploration of the interplay between physical infrastructure access and non-

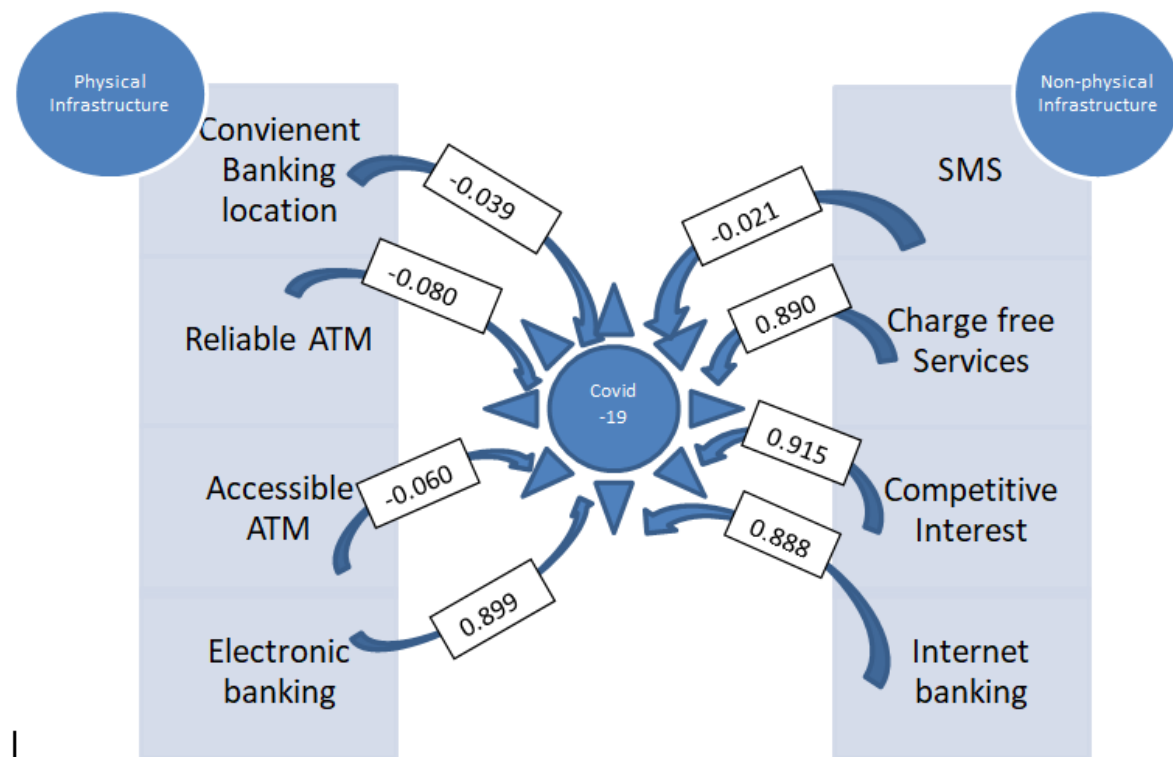


physical access, which are crucial components of financial inclusion. Furthermore, the adoption of odds ratios to investigate the effects of COVID-19 on the availability of financial services is a suitable choice. Odds ratios are commonly used in epidemiology and other fields to determine the likelihood of an event happening under different conditions. In the context of this study, they help in quantifying the degree of favor or disfavor of financial service availability, offering a clear and interpretable measure. Overall, the chosen data analysis methods align with the research objectives and the nature of the data collected, enabling a comprehensive exploration of the impact of COVID-19 on financial inclusion among SMEs and banking staff.

#### 4. Results and Discussion

##### 4.1 The Effects of Covid-19 on the Equality of Opportunities to Access Financial Services in Ghana

Figure 1: Modified Canonical Correlation



Source: Researcher's field survey, 2021

##### 4.1 Impact of COVID-19 on the Equality of Opportunities to Access Financial Services



The Canonical loading for the variable assessing financial services through convenient branch locations revealed a negative coefficient of -0.039. This suggests that COVID-19 has had a diminishing effect on the accessibility of financial services through convenient physical bank branches. Furthermore, the Canonical loadings for reliable ATMs, accessible ATMs, and SMS services were all negative. This indicates that the pandemic did not bring substantial improvements in these aspects. There are two primary reasons for this phenomenon.

Firstly, these variables were functioning effectively even before the onset of COVID-19. For instance, SMS and ATMs were already efficient means of accessing financial services before and during the pandemic. Therefore, there was little room for improvement even in the midst of the crisis. Additionally, the conditions imposed by the pandemic, such as physical distancing, lockdowns, and the closure of ports and harbors, made it extremely challenging to establish new convenient bank locations and install ATMs. These restrictions hindered the movement of equipment and activities required for such developments.

On the other hand, the Canonical loading for four variables, namely charge-free services, competitive interest rates, electronic banking, and internet banking, exhibited a positive correlation. Competitive interest rates had the highest positive correlation at 91.5%, followed by electronic banking, internet banking, and charge-free services, all averaging around 89 percent. This positive correlation can be explained by the fact that these financial activities were not as prominent before COVID-19. Consequently, there was substantial room for improvement, and the pandemic exposed this need. Prior to the pandemic, relatively fewer individuals utilized internet and electronic banking services. However, with the onset of the pandemic and the continuous need for financial transactions, people recognized the necessity to transition to these alternative financial platforms. Financial institutions also recognized the demand for improved services, making them more readily available to a wider population.

#### *4.2 Effects of COVID-19 on the Availability of Financial Services*

The odds ratios for the availability of financial services were calculated for three variables: banking services, insurance, and capital markets. The odds ratio for banking

services was 1.4, while the odds ratio for insurance was 0.6, and for capital markets, it was 0.19.

All three measures of availability of financial services demonstrated positive odds ratios. The odds ratio of 1.4 for banking services suggests a higher likelihood of an increase in the availability of banking services with a rise in the number of COVID-19 cases. In other words, as the number of COVID-19 cases increases, there is a greater likelihood of enhanced access to banking services. This increased demand for banking services would drive supply, and financial institutions would be more responsive to these needs. This result is consistent with Sahay et al.'s findings in 2020.

However, the odds ratios for insurance and capital markets were 0.6 and 0.19, respectively, both being less than 1. This implies that as the number of COVID-19 cases increases, there is no strong relationship with the availability of insurance and capital market activities. Individuals engaging in financial transactions appear to focus more on essential transactions such as fund transfers for goods and service payments. The inclination towards more advanced financial activities, such as risk mitigation and investment in capital markets, did not seem to increase significantly with the rise in COVID-19 cases.

#### *4.3 Strategies to Enhance Gains Made Due to COVID-19*

Respondents highlighted three key sustainable strategies for enhancing gains made due to COVID-19. These are indicated in figure 2

**Consumer Protection and Financial Capability:** Respondents emphasized the importance of establishing clear rules of conduct for financial firms dealing with retail customers. This involves providing adequate information to enable informed decisions, refraining from deceptive practices, and ensuring a transparent process for dispute resolution. It was recognized that consumers need access to sufficient information and the necessary skills to navigate financial products and services, as well as understand their legal implications.

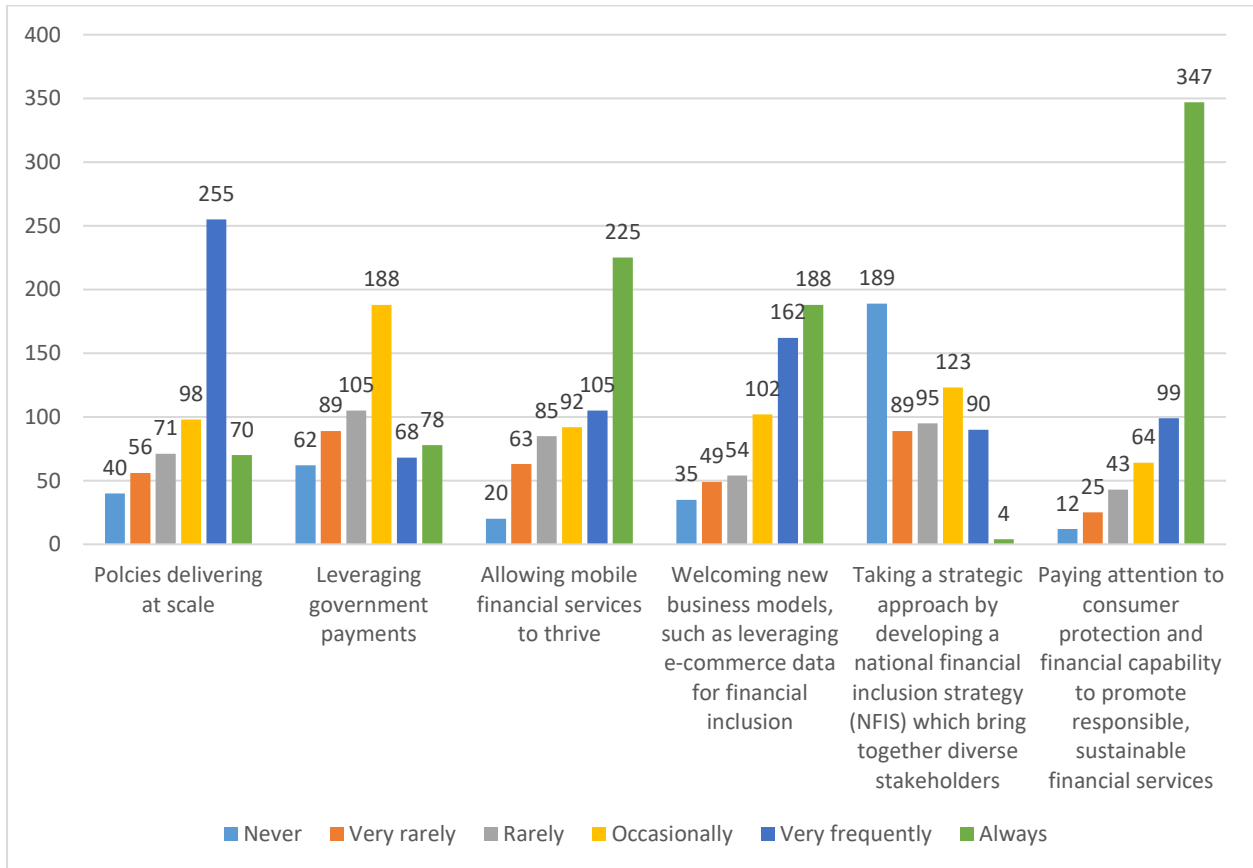
**Promotion of Mobile Financial Services:** Respondents expressed concerns about the safety of electronic transactions and the risk of cyber fraud. They also discussed

issues related to mobile money fraud and the taxation of mobile money transactions. To encourage the growth of mobile financial services, the need for secure electronic transactions and effective measures against fraud was highlighted.

Leveraging E-commerce Data for Financial Inclusion: Respondents stressed the importance of responsible regulation and the need for accountable institutions to make digital technologies work for economically disadvantaged populations. This entails focusing on analogue complements to digital technologies, which fall into three categories: regulation, skills development, and the establishment of accountable institutions. These measures are seen as essential for ensuring the effective use of e-commerce data to promote financial inclusion.

These strategies underscore the significance of consumer protection, secure digital transactions, and responsible regulation as fundamental components in harnessing the gains achieved during the COVID-19 pandemic in the realm of financial inclusion.

***Figure 2: Ways to improve upon gains made or losses made due to Covid-19***



Source: Researcher’s field survey, 2021

#### 4.4 Additional Policies for Consideration

Respondents also identified two policies that, while less prominent, could contribute significantly to financial inclusion:

**Leveraging Government Payments:** One policy suggested was the strategic utilization of government payments to promote financial inclusion. Respondents emphasized the potential of government disbursements to reach individuals who may not have access to traditional banking services. This approach could enhance financial inclusion by ensuring that government payments, subsidies, and benefits are channeled through accessible financial platforms, making these services available to a wider population.

**Development of a National Financial Inclusion Strategy (NFIS):** Respondents highlighted the importance of a National Financial Inclusion Strategy (NFIS) to guide and coordinate efforts to promote financial inclusion. Factors considered in the context of the NFIS included strengthening regulations for financial institutions, enhancing supervision of microfinance companies and rural community banks, establishing

effective crisis management mechanisms in the financial sector, improving the management of insurance, pension, and capital market sectors, and reinforcing efforts to combat money laundering and the financing of terrorism. Respondents also emphasized the need to expand financial access points, increase the availability of digital financial services, and promote a diverse range of low-cost financial products and services for consumers.

## **5. Policy Implication**

The policy implications of this research paper are multifaceted and address key areas that can significantly influence financial inclusion in Ghana. First and foremost, the findings highlight the need for policies that prioritize the enhancement of digital financial services, given their positive correlation with financial inclusion during the COVID-19 pandemic. Financial institutions and regulatory bodies should encourage the expansion of electronic banking, charge-free services, competitive interest rates, and internet banking to cater to the growing demand for these services. Additionally, a focus on improving the reliability and accessibility of ATMs and SMS services remains important, as they serve as fundamental tools for financial inclusion.

Furthermore, the study underscores the importance of government involvement in leveraging payments to promote financial inclusion. Policies should be developed to ensure that government payments, including subsidies and benefits, are disbursed through accessible financial platforms, reaching individuals who may not have traditional banking access. This approach can play a pivotal role in expanding financial inclusion by making critical services available to a broader population.

The development of a National Financial Inclusion Strategy (NFIS) emerges as a vital policy recommendation. Such a strategy can serve as a comprehensive framework to guide and coordinate efforts aimed at promoting financial inclusion in Ghana. Within the context of the NFIS, policymakers should focus on strengthening regulations for financial institutions, enhancing the supervision of microfinance companies and rural community banks, and establishing effective crisis management mechanisms in the financial sector. Furthermore, the NFIS should emphasize improvements in the management of insurance, pension, and capital market sectors, along with reinforced

efforts to combat money laundering and the financing of terrorism. The NFIS can provide a roadmap for financial inclusion, ensuring that regulatory and supervisory bodies work in harmony to achieve this goal.

To enhance consumer protection and financial capability, policymakers should consider the development and implementation of rules of conduct for financial firms dealing with retail customers. These rules should emphasize providing adequate information to enable informed decisions, refraining from deceptive practices, and establishing transparent dispute resolution processes. Empowering consumers with access to sufficient information and the requisite skills to navigate financial products and services, including an understanding of their legal implications, should be at the core of these policy efforts.

In conclusion, the study's policy implications call for a concerted effort by the government, financial institutions, and regulatory bodies to prioritize digital financial services, promote government payments, develop a comprehensive NFIS, and enhance consumer protection. These policies can collectively contribute to furthering financial inclusion in Ghana, ensuring that individuals across the country have equitable access to essential financial services, particularly during and after times of crisis like the COVID-19 pandemic.

## **6. Conclusion**

This study embarked on an examination of the impact of COVID-19 on financial inclusion in Ghana, employing primary data, in contrast to previous studies that relied on secondary data. The specific objectives of the study were to assess the equality of opportunity to access financial services during the COVID-19 pandemic, investigate the effects of the pandemic on the availability of financial services, and evaluate the net gain or loss in financial inclusion as a result of the pandemic.

Based on the responses of 550 participants, the findings revealed that convenient physical banking locations, reliable ATMs, accessible ATMs, and SMS services exhibited negative correlations. This suggests that COVID-19 had limited impact on these variables, which were already operating effectively. Conditions brought about by

the pandemic, such as lockdowns and restrictions on movement, hindered the construction of new physical banking locations and ATM installations.

In contrast, electronic banking, charge-free services, competitive interest rates, and internet banking demonstrated positive correlations. The pandemic exposed the potential for improvements in these areas, as fewer people had utilized these digital financial services prior to the outbreak. The increased demand for these services and the necessity to continue financial transactions during the pandemic prompted both users and financial institutions to enhance and expand these services.

In terms of the availability of financial services, the odds ratio favored banking services, with a ratio of 1.4. This indicates that an increase in COVID-19 cases led to a higher likelihood of improved access to banking services, driven by rising demand. However, the odds ratios for insurance and capital markets were 0.6 and 0.19, respectively, suggesting that the availability of insurance and capital market activities was not closely associated with the number of COVID-19 cases.

The study recommends focusing on consumer protection and financial capability, promoting mobile financial services, and embracing new business models, including leveraging e-commerce data for financial inclusion, to enhance the gains achieved during the pandemic. These strategies underscore the importance of safeguarding consumers, secure digital transactions, and responsible regulation in advancing financial inclusion.

The limitations of this study include the potential for data collection bias or inaccuracies, as primary data collection may be subject to respondent biases and limitations in sample representativeness. Additionally, the study's findings may not capture the full long-term effects of the COVID-19 pandemic on financial inclusion, as it focuses on a specific time frame. Furthermore, the study's scope may not cover all dimensions of financial inclusion, such as cultural and regional variations, which could limit the generalizability of its findings. Finally, the study's ability to provide concrete recommendations for advancing financial inclusion during the pandemic may be constrained by the dynamic and evolving nature of the financial landscape.



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