The goal of financial inclusion in Zambia’s 8th national development plan: risks and implications to the banks

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ABSTRACT

Zambia has not trailed behind other nations in promoting financial inclusion, one of its deliverables in its 2022-2026 Eighth National Development Plan. The analysis focused on the likelihood of reaching this goal and the implications for bank operating stability. A mixed research (quantitative and qualitative) approach was used and drew respondents from several remote areas in Zambia. A hypothesis test on the observed against the hypothesised mean (p-value = 1.93e-38 and <0.005) rejected the null to accept the alternative pre-supposition that banks have a relevant role in achieving financial inclusion, but they are not a necessary ingredient. The correlation test also aligned at both 95 and 99% confidence levels, that supported the null hypothesis to conclude that there is no correlation between the preferred channels of financial services and the adequacy of the financial inclusion. Respondents felt that the financial inclusion services would still be offered at basic satisfactory levels regardless of the available form of financial service provider. The Kruskal-Wallis test supplemented the findings with p = 3.098667e-208(<0.05) that rejected null to conclude that any form of financial services is statistically significant in delivering basic financial inclusion in Zambia. The implications for banks are the risks for continuous survival because of the popular user-friendly alternative channels. It is recommended that the Bank of Zambia should sustain the relative relevance of formal banks by balancing their contributions with other innovative financial service channels. Banks should integrate with new market entrants, or the future will have banking system without banks. Regulators must support banks’ survival traits such as the light set of criteria in their know your customer (KYC) package.

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INTRODUCTION

Financial inclusion is one of the main goals being pursued by most governments, much as the millennium development goals that were uniformly pursued by sovereign countries in the late 20th century. According to several experts, financial inclusion is one of the tools that may be utilised to increase and equalize the economic well-being of individuals (Kumar, 2013; Lal, 2018). In its technical sense, financial inclusion is the ratio or proportion of citizens who utilize financial services (Awad & Nada, 2018; Rajeev & Vani, 2017). Over the past few decades, this goal of financial inclusion has drawn interest from a wide range of interest groups, including academics, legislators, and researchers. The ultimate goal of financial inclusion is to allow all to easily access and use the services provided by the formal financial system. This ratio is a priority and more urgent in the context of the African continent. Most of these people particularly those in low-income brackets either have inadequate or completely have no access to financial services, such as credit facilities, daily transactions, savings, and insurance opportunities (Rashdan & Eissa, 2020).

The major problem being addressed in this study about financial inclusion is that while the ultimate results are associated with progressive desired outcomes, there are implications that come along with the undertaking. Many scholars have found that financial inclusion may affect financial stability as it negatively affects financial efficiency while favourably influencing financial sustainability (Danisman & Tarazi, 2020; Shihadeh, 2020; Le, Chuc & Taghizadeh-Hesary, 2019; ). It has been found that risks may
rise if greater financial inclusion results from rapid credit growth, or if relatively unregulated parts of the financial system grow quickly (Mehrotra & Yetman, 2015).

The importance of this study in the Zambian context lies on the value realised when the results are presented to establish the possibility of attaining financial inclusion, the levels needed, and the effect of financial inclusion on the Zambian banks and their regulator, the central bank in the outworking of the financial stability, banking effectiveness and risks for their survival. The support given to the goal is overwhelming and more is expected to come out with benefits. However, having an all-around scrutiny of the effects of financial inclusion will help the banks, the bank regulator and other stakeholders to be aware of the other effects that come with financial inclusion. This problem has been pursued by several other scholars and decision-makers in Zambia need to be aware of the various effects that border on bank stability (Nguyen & Du, 2022), economic growth (Ifediora et al., 2022), and even bank profitability (Issaka, Anarfo & Aveh, 2022).

The knowledge gap has been created by a lack of awareness of the other effects of financial inclusion on both banks and the financial system, much of the efforts have been directed to the pursuit of it to yield positive outcomes which admittedly are sure to come, but the other side of the financial inclusion coin has not been exploited (Sishumba & Mulonda, 2019; Kabala et al., 2021). The research work in Zambia and most countries in the region has centred on the effect on economic growth. The methodology and data samples were focused on what should be done to achieve financial inclusion. However, this study has focussed on the possibilities of achieving financial inclusion and how the banks’ interest is being diluted and driven to extinction.

Zambia has long pursued the aim of financial inclusion, and certain national policies directly or indirectly related to financial inclusion have been created along the way. The goal of empowering small enterprises in Zambia, particularly in rural and urban regions, prompted the need for a well-established financial inclusion program. The Ministry of Commerce, Trade and Industry (MOCTI) formulated the Micro, Small and Medium Enterprise Development Policy in November 2008 to that effect, and section six of this policy acknowledged that successful implementation of the MSME Policy would be dependent on timely availability of financial resources for the implementation of recommended intervention strategies (MOCTI, 2008). This marked the beginning of Zambia's institutional pursuit of financial inclusion, at least by implication. Banks would play an important role in this process and the first Citizen's Economic Empowerment Programme loans were disbursed through the National Savings and Credit Bank (NATSAVE).

Zambia established the Rural Finance Policy and Strategy under the Ministry of Finance (MOF) in July 2012 to expand access to financial services in rural Zambia to alleviate poverty, increase employment, and promote substantial industrial growth (MOF, 2012). Financial inclusion was now incorporated into the fifth and sixth national development plans. This policy was accompanied by the 2012 National Policy on Financial Education for Zambia, which laid out the basis for increasing Zambians' financial education. The Strategy's major goal was to provide Zambians with the information, understanding, skills, motivation, and confidence they needed to ensure excellent financial results for themselves and their families throughout five years ending in 2017. The United Kingdom supported this project, which was championed by an array of organizations including the Bank of Zambia (BOZ), the Securities and Exchange Commission, and the government itself (BOZ, 2012).

The deadline for the National Strategy on Financial Education Part 1 expired in 2017, but its second version was reconstituted to run from 2019 – 2024. But before that, the government eagerly launched the parallel policy; the National Financial Inclusion Strategy (NFIS) through the Bank of Zambia that would run from 2017 to 2022 with an overlap of the second version of the financial education strategy. The primary goal was to achieve universal access to and utilization of a broad range of quality and affordable financial services that meet the needs of individuals and enterprises. The goals were to attain 80% population financial inclusion and 70% adult financial inclusion.

By 2022, technology was brought on board to help push the objective of bringing the unbanked and underserved into the official financial system. In its 2016-19 strategic plan, the Bank of Zambia established defined objectives to increase formal financial participation from 59.3 per cent in 2015 to 75.3 per cent by 2019 (BOZ, 2020). This was further supported by the running Ministry of Finance National Financial Sector Development Policy of 2017. The Policy aimed at having a well-developed and inclusive financial system that supported efficient resource mobilisation and investment for sustainable economic development.

Zambia launched the Eighth National Development Plan for 2022 – 2026, and its second development outcome goal was to enhance citizenry participation in the economy. The four strategies under this desired outcome were diaspora, entrepreneurship, enterprise development and financial inclusion. The financial inclusion strategy would this time involve technology to reach the financially excluded bracket. Mobile banking has developed, and achievement of this goal is now appearing to be more promising than previous attempts. As this strategy of financial inclusion is being chased, the financial structure and pattern are changing with most financial institutions, especially traditional banking systems are feared extinct. It is important to keep on checking the possibility of this goal of financial inclusion in the Eighth National Development Plan as well as the roles and emerging risks of traditional banks.

The organisation of this paper is arranged to flow starting with the aims and objectives of the study, the literature review and the findings. Implications as well as recommendations to specific interest groups are provided based on the empirical findings of the study for noting, implementation and reaction. The paper has also acknowledged the limitation arising from the process of the study and the issue of further research needs in relation to the topic are solicited.
This study aimed to achieve the following objectives:

i. to assess the possibility of attaining a complete financial inclusion strategic goal of the 8th National Development Plan in Zambia.
ii. to establish the role and the importance of banks in the outworking of the goal of financial inclusion in Zambia.
iii. to determine the most preferred modes of accessing financial services among the alternatives by people in remote areas of Zambia.
iv. to assess if banks are both relevance and necessary in financial inclusion based on the challenges faced by people when banks are not in the area to spearhead financial inclusion as per the government's strategic goal.

Literature Review

A review of relevant literature is presented in this section. The significant areas of review include the role of financial inclusion in poverty alleviation, theoretical frameworks of financial inclusion, the role and risks of banks in financial inclusion, possibility of achieving financial inclusion.

Financial inclusion and poverty alleviation

At the time when Zambia was starting to make formal efforts to implement financial inclusion, the importance of this goal was already tested in various parts of the world. The financial access for poor people was found to be a huge boost to economic improvement and welfare which later led to poverty alleviation (Zhang, 2020; Bianchi, 2010; Demirguc & Levine, 2008). According to Demirguc and Levine (2008), the more financial services offered to small and medium-sized businesses, the more employment created and the higher the salary level. Financial inclusion levels improved as banks expanded their presence in rural regions. Burgess and Pande (2005) conducted a natural experiment on bank-branching rules to discover a considerable influence on poverty alleviation brought on by the growth of bank branches in India and positive relationship was proved to be significant. An examination of over 160 economies around the globe discovered that increasing financial access considerably lowers poverty (Honohan, 2008).

Schubert (2019) acknowledged that as a general stance, strongly backed by a body of research with the availability of financing, investments may be made that raise the productivity of an individual or a company, hence promoting growth. This notion may also be used by the very impoverished who can boost their income by investing in a small business. Beck et al. (2007) looked at the effect of financial inclusion on poverty, by taking the income growth of the lowest income share as well as the headcount growths of people living on less than a dollar per day as the dependent variable. They found a significant positive relationship between access to private credit and poverty alleviation. Further than this, they also found a disproportional benefit of financial inclusion for the poor compared to the rich, resulting in lower income inequality. This position was tested right even in the great 20 (G20) countries (Khan, Zafar, Okunlola, Zoltan & Robert, 2022) and in Asia (Chinnakum, 2023).

As demonstrated by Ellis, Alberto, and Juan-Pablo (2010), families that have access to financial goods and services are better equipped to make investments that will increase their future income and, thus, their ability to expand their economies. For a range of financial goals, decisions about borrowing and saving are made even among the lowest income levels. Burgess and Pande (2005), among others, examine whether poverty in India increased as a result of the development of rural bank branches by the government. They discovered that the introduction of new bank branches has a significant negative influence on the rates of rural poverty in India's unbanked and rural areas. Loans, savings, insurance, payments, and remittances are among the principal formal financial services, according to Inoue (2011). When people lack access to these legitimate services, they frequently rely on expensive unofficial funding sources. As a result, those with low incomes are likely to bear a heavy financial burden.

In Kenya, the adoption, use, and effect of mobile money as part of financial inclusion were examined by Morawczynski and Pickens (2009). They discovered that the receipt of remittances increased the earnings of rural mobile money owners, which also led to bigger household savings. Recent similar findings were made in other 54 countries in Africa (Khan, Khan, Sayal & Khan, 2022), China (Lee, Lou & Wang, 2023), Turkey (Dogan, Madaleno & Taskin, 2022) and many others.

Theoretical framework of financial inclusion with poverty through bank roles

General Equilibrium Model

Besley et al. (2018) provide a theoretical framework for the effects of financial inclusion by banks on poverty reduction. They performed what is called the general equilibrium model explained by moral hazard and limited liabilities. The model was constructed from the US data and showed that financial inclusion quantitatively mattered much more than contracting frictions, particularly in the labour market, where workers’ wages would increase by 125% when financial inclusion changed from zero to full coverage Besley et al. (2018)’s simulation showed it was the expansion of firm size from financial inclusion increase that pushed labour’s wage increase. For the business owners, Bruhn and Love (2014) established a channel that increased financial access and helped existing business owners continue their operations instead of closing them and then becoming jobless. Either way, financial inclusion was found to have a theoretical role an important role in the economic growth of the workers as well as the business entities.
Financial depth, access, efficiency, and stability are the four sets of proxy variables defined by Ihak, Demirgüç-Kunt, and Levine (2012) in their framework for defining a well-functioning financial system. Financial access in this context refers to how readily available financial services are to consumers, whereas financial depth refers to the scale of financial institutions and markets. Stability refers to the stability of financial institutions and markets, whereas efficiency depicts the effectiveness of financial intermediaries and markets in facilitating transactions and providing ways to intermediate resources.

**The role and risks of banks in financial inclusion**

Wang and Luo (2022) verified that the banking system achieves stability when financial inclusion is sought through banks. Developments in financial inclusion have been shown to boost bank stability, according to a study conducted in 36 emerging economies between 2004 and 2018 that used bank-level data from over 1500 commercial banks. However, they acknowledged that other factors, like the business cycle, financial conditions, level of government, and policy contexts, affected the relationship between financial inclusion and bank stability. Other finding in agreement of this include those dealing with financial inclusion and `bank profitability (Kumar, Thrikawala, & Acharya, 2022; Shihadeh, 2021).

The increase in financial inclusion has a different effect on the banks when other technological Channels and methods are used. Other alternatives replace the heavy list of demands and opt for the technologies which are convinent (Kouladoum, Wirajing & Nchofung; 2022 Marcellin, Egбедewе, Oloufadе & Sun, 2022). But this was not the view at the time technology was being onboarded in the early 2000. For example, Hannig and Jansen (2010) argued that in a sound financial inclusion environment, low-income savers and borrowers tend to maintain solid financial behaviour throughout financial crises, keeping deposits in a safe place and paying back their loans. Banks play an important role in achieving this. But on the contrary, Mehrotra and Yetman (2015) reported that greater financial inclusion can impact the behaviour of enterprises and consumers in ways that may influence the efficacy of monetary policy. The duo objectively commented that the influence on financial stability may be determined by how financial access is improved. Risks may increase if rapid credit growth leads to increased financial inclusion, or if relatively uncontrolled sectors of the financial system develop rapidly. And even more seriously, it was found that the recent financial crisis provided evidence that financial innovation can have devastating systemic impacts (Mehrotra & Yetman, 2015).

Manyika et al. (2016) noted that with digital financial inclusion, a huge number of depositors may easily change banks within minutes, compelling banks to deliver excellent services or risk losing depositors to other banks. For financial and monetary system authorities, digital financial inclusion also helps to lower the quantity of physical currency in circulation and is important in controlling high inflation levels in emerging and impoverished nations. This implies that banks will face the issue of maintaining a high level of client service (Ozili, 2018), while regulators will have the challenge of keeping control of the system or devising a completely new set of laws to do so. This will force the regulations to relax and expose the security of the banks.

Yedwa (2020) discovered that in Zambia, mobile money services were the most favoured means of money transfers and savings since they are conveniently available, inexpensive, simple to use, and safe. The bank demands a lot of know-your-customer (KYC) documents which are usually difficult to find while mobile banking uses the lightest KYC. Where banks have failed to reach, the force for financial inclusion will push mobile banking there and pre-empt the bank services.

Sishumba and Mulonda (2019) highlighted the role of village banking in accelerating financial inclusion. The research reveals that with proper legal and regulatory framework village banks can reach the hard-to-reach by creating access to basic financial services for poor communities on a sustainable basis anchoring on mutual trust, relationships, accountability, customs, values and participation. In fact, they highly recommended that more village banking groups be established and supported by the government and the regulators and used as a financial tool to accelerate financial inclusion to reach the hard-to-reach poor communities (Sishumba & Mulonda, 2019).

**Possibility of achieving financial inclusion: determinants and factors**

Makoetje (2018) noted that it is possible to achieve financial inclusion as long as appropriate factors are considered. He emphasised that informal financial services play a significant role in determining the key drivers of financial inclusion in Zambia and that formal financial services are not the only ones required to attain this goal. In order to improve financial inclusion in Zambia, he pointed out that basic and financial education, as well as the availability of income, have a stronger impact on expanding the use of these services. Further, he said that in order to extend the financial system to rural regions, policies focused on the underprivileged, women, and residents of rural areas must be developed. He also suggested that technical advancements will help in servicing the rural population. Similar factors were found in Nigeria (Abdu, Buba, Adamu & Muhammad, 2015), Zimbabwe (Sanderson, Mutandwa & Le Roux, 2018) and Africa in general (Zins & Weill, 2016).

Masialeti (2021) came to the conclusion that MSMEs in Zambia clearly exhibit financial inclusion. The main difficulty, however, is that the majority of MSMEs lack access to institutional capital from official financial institutions. The report urges the implementation of measures to assist MSMEs in gaining access to formal funding. It also suggests formalizing "women's informal sector," holding roadshows on financial literacy for women in the informal sector, teaching women digital skills so they can access financial services more easily and setting objectives for financial institutions to onboard women led MSMEs.
Kalunga (2022) highlighted the possibility of achieving financial inclusion through dedicated financial institutions that have secured resources to expand their services in unbanked areas when she used the case of the National Savings and Credit Bank (NSCB). The study revealed that NSCB financial products and services contribute significantly towards economic growth and wealth creation by means of its support towards education activities at the household level and through loans and savings products which are offered in the rural communities it is servicing. It was further noted that NSCB products and services have an effect at the community level as they focus on supporting economic activities such as agriculture, and micro, small and medium enterprises which are a major driver towards economic growth and development. The study recommended that an improvement in customer service, financial sensitization or education of rural communities, expansion of remote banking, introduction of tailor-made products, and recapitalization of the bank as well as infrastructure development in rural communities can greatly contribute to promoting financial inclusion in Zambia.

**Hypothesis Formulation**

The three hypotheses formed in the study all tried to answer the question of whether banks and other channels of financial services are statistically significant in the outworking of the financial inclusion in Zambia. Derived from the above literature review and the set research objectives.

Ho: Banks are not significantly needed to achieve financial inclusion in Zambia under the 8th National Development Plan.

Ho: The form of financial service channel preferred has no correlation with the levels of adequacy of financial services in Zambia.

Ho: Any form of financial services is not statistically significant in achieving financial inclusion in Zambia for the 8th National Development Plan.

**Research and Methodology**

The target population consisted of participants from far rural areas such as the Luampa District in Western Province, and Luano Area of Central Province, Casavasa, Kabwe Rural and many other unbanked areas. These areas were purposively chosen because their population is increasing with a pressing need for financial services by all economic-based activities. These places have civil servants, business owners, farmers, and students among others. It was assumed that the views and submissions of such participants would be ideal to represent the general experience of the other places that are seemingly financially excluded. The Zambia Eighth National Development Plan aims at covering these and its success or failure will be measured by how many people from the typical chosen places have been adequately included with financial services.

**Sample and data**

Using a purposive sampling method, sixty-five (65) research participants were selected from more than 5 rural places in Zambia with perceived inadequate financial inclusion. While this size was relatively smaller compared to the population size, the diversity of the sample selection afforded a representative picture of what is happening in these rural places on financial inclusion. All participants were briefed on the research to ensure they were aware of the study and its implications.

**Method and model**

This study was targeted at descriptive research based on a survey of facts with the primary purpose of establishing the situation as it exists at present in which the researcher has no control over the attributes of the variables; as described by the experts he can only report what is happening (Kothari, 2004). The mixed method and model was adopted to accommodate both qualitative and quantitative approaches.

**Components and Data Analysis Methods**

Triangulation aims were served by securing the quantitative and qualitative components of the data analysis. Using tables and objective sample testing, the quantitative data was presented. The quantitative data analysis outputs made use of non-parametric testing and regression analysis. When it comes to a continuous or ordinal dependent variable, the Kruskal Wallis test determined if there are statistically significant differences between two or more groups of an independent variable. Regression analysis paired the connection between the two variables of interest. The quantitative analysis helped in achieving the measurements and test of the objectives in a clear and thorough terms.

**Variables**

The main pillars in the measures of financial inclusion variable were the access to basic services such as savings, credit facilities, transactions, transfers and funds transactions including salaries. The financial inclusion was the dependent variable subjected to various independent variables including the various solutions to financial services provided through various channels such as banks, mobile money operators, microfinance organisations, group village banking and individual money lenders.
Hypothesis testing
Megastat software was used to examine the data and determine the statistical significance, relationship, and causation of the variables. In this instance, a cross-tabulation of variables was tested using Chi-square, and a mean value was determined below which data pattern observations were evaluated. The results of the data, as shown in the figures and tables, are provided in the next sections.

Analysis and Findings
The results of the study are presented in this section starting with the demographic description of the data before considering the variables of interest on financial inclusion.

Demographic Characteristics
This section gives an overview of the respondents’ characteristics in terms of gender, occupation and age of the participants.

Gender Distribution
The number of participants in terms of financial inclusion data collected was made up of 51.6% female and 48.4% male. This balance was there to ensure that each gender category was well represented and preferably, the female representation was very important.

Age Distribution
The age distribution of the respondents in the financial inclusion were made up of 57.8% in the age range of 20 – 35 years, 34.4% from the age range above 35 years participated and 7.8% were below 20 years. This pattern indicates that the majority of the citizens actively involved in financial inclusion matters are those between 20-35 years, followed by the band above 35 years of age.

Occupation distribution
The catchment area was from the rural parts of Zambia and the participants were mostly farmers making up to 76.6% of the total respondents. Slightly above a tenth or 10.9% were employees in government or other established organisations in the area. The entrepreneurs made up 1.6%, dependants such as school-going children accounted for 4.7%, 6.3% were from Other activities.
The results showed that many of the people in the rural areas are farmers and a sizeable number is supplemented by the employees, especially civil servants. There are relatively few business owners doing significant business activities in remote areas of the country.

**Research Findings on Objectives**

The findings of the four research objectives have been presented in this section. Respondents were asked questions to reveal their actual situation on a specific objective of financial inclusion and the findings gave a clear pattern of what is obtaining in each area of interest.

**Objective 1: To assess the possibility of fully attaining the financial inclusion strategic goal of the 8th National Development Plan.**

This financial inclusion variable was measured in two areas, the levels of access to basic financial services and the adequacy of these services.

**Access to Basic Financial Services**

Respondents were asked if they had access to the needed financial services. Figure 4 below shows that 70.3% admitted that they have been financially included at least in the major areas of their wish. About a quarter of them making up 26.6% reported that they are not financially included in the services.

**Adequacy of Financial Services**

The results show that the level of financial inclusion has reached a significantly high level at least to the measures that respondents felt were adequate. The sample representation if inducted to the entire country shows that almost three-quarters of the people are financially included to the levels of their liking. This shows that there is a high possibility of achieving financial inclusion by the end of the strategic plan period.

**Figure 3: Occupation**

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The results show that even if three-quarters in remote areas have access to a measure of financial services, these services were rated inadequate. There is more needed to be done on the financial service provision than a withdrawal and deposit. The access to basic financial services is the first step needed and necessary but it is not the end in itself.

**Objective 2: To establish the role and the importance of banks in the outworking of the goal of financial inclusion**

The role of banks in financial inclusion was measured by two factors, the availability of banks in the areas engaged and the access to the bank accounts by the respondents in those remote areas.

**Availability of Bank Services in Remote Areas**

To establish the objective outcome, respondents were asked to state the channels and institutions of financial services available in their area. Figure 6 below shows that the primary source of financial services in remote areas is mobile banking through mobile money operators making up 47%. The next in availability is the upcoming village banking locally called “Chilimba” making up 30% of the total respondents. Money lenders who extend informal credit facilities at an agreed interest margin were the third in offer with 13%. Banks were reported to be not available in the area and they only accounted for 2% of the financial services.

The above results indicate that while the rate for financial services is being intensified for financial inclusion, the participation of banks in this trajectory is very insignificant. The expansion of financial inclusion services is being driven by mobile money services and the claim is almost half of the total participation.

**Access to Bank Accounts**
However, despite the low presence rate of banks, the results showed that a significant number of people in remote areas have a bank account from one of the banks. Figure 7 below shows that out of the total respondents from various places visited, 43.8% of the people admitted having at least one bank account despite having no bank in the area. However, the majority still do not have any bank account and this made up 56.3% of the total people engaged.

![Figure 7: Have a Bank Account](image)

The above results show that banks still have an influence on financial inclusion services despite their absence in remote areas. Of course, the absorption is lower than for those without a bank account, but the numbers indicate that the banks still have customers in areas where they do not exist.

**Objective 3: To determine the most preferred modes of accessing financial services among the alternatives by people in remote areas**

The respondents were asked which of the available financial service providers is their most preferred and would love to transact with. Figure 8 below shows that mobile money is the most preferred of all financial service providers with a 54% rate out of the total respondents. Banks were rated second with a 28% rate followed by village informal grouping of empowerments on village banking. The money lenders and shylocks made up 4% while a small number declined ever getting involved with any financial service provider and they felt they can manage funds on their own without any financial inclusion. Of course, this small group needs financial literacy.

![Figure 8: Which Financial Service Provider Would You Prefer?](image)

The banks were rated to be less preferred to mobile money services by most remote areas. This is an emerging risk for the banks and the implication of growth of banks in such areas is greatly undermined. The penetration power of the village banking and mobile money operators slowly erodes the interest and need for the banks. However, that does not mean that banks are not necessary as these services have failed to meet a number of important needs for the people as discussed in the next objective outcome.

**Objective 4: To establish the challenges faced by people when banks are not in the area to spearhead financial inclusion as per the government's strategic goal.**

The respondents were asked to find out what challenges they are facing and the extent of such challenges due to the physical absence of banks in their area. The following were the ratings on the selected challenges of not having a bank in the area:

i. No Access to Loans (a fair challenge by the majority but some submitted that it's not important and not required)
ii. No access to savings (a fair challenge by the majority yet a number of them submitted that the banks are not needed)
iii. No access to information on money markets and exchange rates (rated very high by the majority)
iv. Difficulties in getting salaries (rated very high by the majority).
v. Safe custody of funds (Not a serious challenge but a fair one per majority)

vi. Business transactions of high value from other places (this was rated fairly severe by the majority, not a huge challenge)

vii. Access to government funding was rated as not important by some and others rated as a high need that has to be filled.

Figure 9 shows that most of the traditional roles of banks have been diluted by the existing mobile money and emerging forms of village banking, hence the number of those who feel that banks are not needed for such services is increasing. For example, information and services on foreign exchange and money markets, transactions from other places, accessing salaries and government funding were all having a some think banks are not needed. This means that other substitutes are offering solutions for financial inclusion needs without the bank intervention.

Figure 9: Severity of challenges faced in relation to the absence of banks in the rural areas of Zambia

As can be seen from the graph, the bar for fair challenge or less severe is dominant for the bank’s absence. The report results indicated that people could do without banks in the area and the challenges would not exceed average in terms of severity. There are some services in which respondents reported that banks are not required at all and some of these are financial information on exchange rates, getting salaries as well as safe custody of funds. The services which needed banks more are loans, savings even financial information.

Hypothesis Testing

Three quantitative hypotheses were run to assess the statistical significance of the pertinent variables and their relationships. The first test was the significance of the role of banks in financial inclusion using the hypothesised value against the mean data values. This was done to see if banks are relevant in the outworking of the financial inclusion process. The second hypothesis was focussing on the correlation between any form of financial services and the levels of adequacy of financial inclusion. The last hypothesis was testing the relationship between form of financial services and perceived access to financial inclusion in Zambia.

Hypothesis 1: Significant test of banks in financial inclusion (Are Banks Relevant?)

This test was run using the hypothesised value against the observed mean value. The hypothesis test was run on 7 variables of services each seeking to establish if banks are needed for each of those services in the financial inclusion pack. The anchor rating was from 1 to 4 where 1 stood for banks not important or not required at all, and 2 was a fair rating where respondents felt the importance of banks is just normal and may have some minor setbacks without them. A rating of 3 was for banks highly needed and 4 was a rating where banks were very much necessary, and people could not do without them.

The hypothesis test setting was on the reasoning that if the average score rating of respondents was 1 or 2 then banks were not important in the process of financial inclusion and a rating of 3 and 4 signified that banks were very much needed to achieve financial inclusion in Zambia.

Hence the hypothesised value was set to greater than 2 to be compared to the actual run values from the observation. The null hypothesis was stated as below.

Ho: Banks do not have a significant role to play in achieving financial inclusion in Zambia under the 8th National Development Plan.

H1: Banks have a significant role to play in achieving financial inclusion in Zambia under the 8th National Development Plan.
We make a judgment based on the P-value. The P-value tells us if the discrepancy between the observed and the hypothesized value is statistically significant or random. Table 1 shows the T-test which yielded a p-value of \(1.93 \times 10^{-38}\) in scientific notation and this is a significant outcome as we conclude that the observed statistics are not out of chance.

**Table 1:** Testing the Statistical Significance of the Role of Banks in Financial Inclusion in Zambia

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<tr>
<th>Hypothesis Test: Observed Mean vs. Hypothesized Value</th>
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<tr>
<td>2.000 hypothesized value</td>
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<td>2.712 mean Data</td>
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<td>1.060 std. dev.</td>
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<td>(1.93 \times 10^{-38}) p-value (one-tailed, upper)</td>
<td></td>
</tr>
<tr>
<td>2.614 confidence interval 95% lower</td>
<td></td>
</tr>
<tr>
<td>2.810 confidence interval 95% upper</td>
<td></td>
</tr>
<tr>
<td>0.098 half-width</td>
<td></td>
</tr>
</tbody>
</table>

**Decision:** We reject null and accept the alternative to conclude that banks have a significant role to play in the process of financial inclusion in Zambia under the 8th National Development Plan.

**Hypothesis 2:** Correlation Between Form of Financial Services and Adequacy of Financial Inclusion (Are Banks Necessary?)

Table 2 shows a Correlation test was run between the most preferred form of financial services and the levels of adequacy of the same financial services. With the r value obtained \((r = 0.254)\), the test revealed a weak relationship between the two variables and suggest that the form of services do not have any significant effect on the adequacy of financial inclusion services. A correlation coefficient of 0.254 means that the strength is below substantial value, and it does not matter which form of financial services is available, any of the alternative channels therefore can deliver the services. This is the test which proved that banks can be relevant but not necessary for the outworking of the financial inclusion services.

**Table 2:** Form of Service and Adequacy of Financial Services in Zambia

<table>
<thead>
<tr>
<th>Correlation Matrix</th>
<th>What form of financial services are available in your area</th>
<th>Are the financial services needs in your area adequate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What form of financial services are available in your area</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Are the financial services needs in your area adequate?</td>
<td>.254</td>
<td>1.000</td>
</tr>
<tr>
<td>64 sample size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P - value</td>
<td>± .246 critical value .05 (two-tail)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>± .320 critical value .01 (two-tail)</td>
<td></td>
</tr>
</tbody>
</table>

The p value at 0.05 and 0.01 two tailed both yielded the more than 0.05 (that is 0.246 and 0.320 respectively). At both 95 and 99% confidence levels, the value of the correlation coefficient is statistically insignificant and we accept the null hypothesis that there is no correlation between the preferred channels of financial services and the adequacy of the financial inclusion. It does not matter which channels are available in the area, services of financial inclusion would still be offered at basic satisfactory levels.

**Hypothesis Test 3:** Availability of Channels of Financial Services and Perceived Access to Financial Services

This test was done using the Kruskal – Wallis Test a non-parametric (did not assume normal distribution) test to look at the relationship between a specific form of financial services present in the area and the perceived access to financial inclusion services. This test was answering the question as to whether a specific channel of channel is insignificant compared to the other. Hence the null hypothesis stated was stated as in Ho below.
**Ho:** Any form of financial services is not statistically significant in achieving financial inclusion in Zambia for the 8th National Development Plan.

**Ho:** Any form of financial services is statistically significant in achieving financial inclusion in Zambia for the 8th National Development Plan.

**Table 3:** Form of financial service and access to financial services

<table>
<thead>
<tr>
<th>Kruskal-Wallis Test</th>
<th>Median</th>
<th>n</th>
<th>Avg. Rank</th>
<th>Do you have access to financial services in your area</th>
<th>What form of financial services are available in your area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00</td>
<td>64</td>
<td>35.36</td>
<td>Do you have access to financial services in your area</td>
<td>What form of financial services are available in your area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.00</td>
<td>64</td>
<td>93.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>128</td>
<td>84.926</td>
<td>H (corrected for ties)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td>d.f.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.09667e-20</td>
<td>p-value</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results show a p value of less than 0.05 (p = 3.09667e-20) that rejects the null hypothesis and leads to a conclusion that any form of financial services is statistically significant in achieving financial inclusion in Zambia for the 8th National Development Plan.

**Implications**

The study has revealed important issues on the viability of financial inclusion in Zambia as well as the risks emerging for the banks. The main findings show that most of the people in the unbanked areas have started making use of alternative channels for accessing financial services. This is a desirable score for the government in achieving the goal of financial inclusion and at the same time a huge risk to the banks. This has both a psychological and implied indication of achieving significant financial inclusion without the bank’s presence in the remote areas. The two areas have been discussed in line with the findings of this study.

**i. Possibility of Achieving Financial Inclusion by 2026 in Zambia**

**Access to Basic Financial Services:** According to the findings, the level of financial inclusion has increased significantly, at least in terms of the indicators that respondents deemed adequate. When the sample representation is extended to the entire country, approximately three-quarters of the population is financially included to their liking. This shows that financial inclusion is likely to be attained by the end of the strategic plan time, at least to a significant scale.

**Adequacy of Financial Services:** The findings demonstrate that, while three-quarters of people in distant locations have access to some form of financial services, these services are judged poor. More work on financial service offerings is required than a withdrawal and deposit service. Access to basic financial services is a crucial first step, but it is not an end in itself. Hence by 2026, efforts have to be made to ensure that a complete package of financial inclusion pack is spread to all the remote areas of the country.

**Availability of Bank Services in Remote Areas:** The findings show that, while the rate of financial services is increasing for financial inclusion, banks’ engagement in this trajectory is minimal. Mobile money services are driving the rise of financial inclusion services, and the claim represents about half of total participation. This means that if these alternative channels of financial inclusion are empowered to work with rights similar to the banks, it is easy to achieve levels of satisfactory financial inclusion.

**ii. Risks for Banks in Zambia**

**Access to Bank Accounts:** Despite the low bank presence rate, the findings revealed that a considerable proportion of people in distant locations had a bank account with one of the banks. demonstrate that, despite their absence in remote places, banks continue to have an impact on financial inclusion services. Of course, absorption is lower for people without a bank account, but the figures show that banks continue to have customers in locations where they do not exist. This implies that, via partnership with mobile money carriers, bank services may still be offered to the unbanked. This seems to be a relief for banks but an exposure to accounts running dormant.

**Most preferred modes of accessing financial services among the alternatives by people in remote areas:** When asked which of the various financial service companies they favoured and would want to deal with. Most rural places ranked banks as less favoure by mobile money services. This is a new risk for banks, and the implications of bank development in such places are substantially diminished. The proliferation of village banking and mobile money providers gradually erodes interest in and demand for banks. However, this does not mean that banks are unnecessary, as these services have failed to address a number of critical financial needs of the people.
Do the people in remote areas face financial service challenges when banks are not in the area to spearhead financial inclusion as per the government's strategic goal? According to the results of this study, most of the conventional functions of banks have been replaced by current mobile money and new forms of village banking, which has led to an increase in the number of people who believe banks are not necessary for these services. For instance, data and services on the currency and money markets, transactions from other locations, access to wages, and government financing were all making some people question the necessity of banks. This indicates that alternatives are providing answers to requirements for financial inclusion without the involvement of banks.

Conclusions

The study has revealed that banks are relevant to the outworking of financial inclusion in the development plan. A hypothesis test yielded significant results for 448 responses with a p-value of 0. This means that even people in remote areas understand the relevance of the bank and what banks can do. However, the reality test also revealed that the expansion of services in areas where banks do not exist is significant and is being driven by alternative channels such as mobile banking and village banking. This makes banks relevant yet not necessary (or can do without) for achieving financial inclusion as these emerging alternative channels are equally capable of delivering the services. A significant ratio of people in rural areas have started ruling out banks as being needed, and they prefer mobile banking to banks. Hence banks are relevant but not necessary for achieving financial inclusion and this poses a risk to banks' existence and going concern especially if they remain in the same state of functionality, rigid requirements and traditional form.

The correlation test matrix yielded results that the form of financial services channels does not depend on the type instead any services in the area were rated to be of meaningful value and impact. Respondents admitted that they are satisfied with the alternative channels of financial services available, and no special mention was attached to a single channel. The same results were consistent with the non-parametric test which showed that from a same sample of respondents, all types of financial services channels are significantly important if they are present in the area.

Recommendations for Stakeholders

Policymakers should be assured that financial inclusion is a reality through various channels aside from banks. The average citizen will have access to financial services at least in their basic form by the year 2026. However, for these alternative channels to be effective in delivering financial inclusion, they should have many rights as those given to banks or they should partner with licensed banks. The Bank of Zambia as the regulator should have an open eye on the relative importance of formal banks to the local people. The regulator must align and balance the contribution of banks and other emerging channels of financial services and aim to protect both.

Banks should incorporate the social mandate goals in addition to commercial goals and work hand in hand with the new entrants such as the mobile money operators, local shylocks and village banking groups in the market. The trends are pointing to the future where the banking system will exist without the physical banks. The regulator should devise means of supporting the new products which banks may see as needed for survival, such as online lending as well as the light set of requirements in their know your customer (KYC) pack. The goal of financial inclusion can work in reverse on bank stability and profitability as the volume of business is likely to be undermined due to sharing dictates with the new entrants in the market.

Limitations of the Study

The study was conducted in remote areas and most participants had mixed feelings about the intentions of the study. Some felt that the task was meant for marketing for both banks and mobile money operators or a due diligence was done with a view of opening the branch. This challenge was managed and minimised by the debrief in which the intention, consent and motive of the study were explained to the participants. Most participants were in rural areas, but financial inclusion considers people in the cities as well. The area of coverage was a sample, and the sample is not the whole representation of the true population. However, the random sampling employed had a neutralising effect for representation of the data and had assured a significant accuracy or close to the true values of the entire population.

Acknowledgement

Author has read and agreed to the published the final version of the manuscript.

Author Contributions: Conceptualization, methodology, Data Collection, formal analysis, writing—original draft preparation, writing—review and editing by authors.

Institutional Review Board Statement: Ethical review and approval were obtained for this study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

Conflicts of Interest: The author declares no conflict of interest.
References


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