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Bridging the Financial Divide: Factors That Influence Financial Exclusion amongst The Unbanked Population of Botswana

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ABSTRACT

Purpose: The aim of this research is to determine the primary causes behind the unbanked population's exclusion from Botswana's official financial system. The study aims to address the following research question: What are the main causes of the unbanked population's exclusion from Botswana's formal financial system, and how do these causes affect financial inclusion?

Deign/Methodology/Approach: This study used a mixed-methods approach to research, collecting and analysing data using both quantitative and qualitative techniques. Participants in the data collection process were given surveys to accomplish this goal. These surveys collected detailed data regarding people's financial inclusion status in Botswana. The surveys also explored the reasons behind the unbanked population's absence from the official financial system.

Findings: The study's findings indicate that the unbanked population's degree of financial inclusion in Botswana is greatly impacted by the factors that keep them out of the country's formal financial system. The results of this study will add to the body of knowledge in business studies and financial technologies. Additionally, Mobile Network Operators (MNOs), commercial banks, government policy makers, and regulators in the financial and insurance sectors can use the study's findings to obtain useful information and guidance.

Paper Type: Research Paper

Keywords: *Financial Exclusion, Unbanked Population, Mobile Network Operators (MNO).*

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I. INTRODUCTION

Understanding Botswana's financial inclusion and exclusion requires understanding how financial exclusion affects inclusive growth (Achugamonu et al., 2020). According to sub-Saharan African research, financial marginalization can hinder inclusiveness efforts (Achugamonu et al., 2020). This effect is especially obvious for low-income groups, immigrants, ethnic minorities, and the elderly in industrialized and high-income nations (Sarma & Pais, 2011). The World Bank Global Findex database was used to study financial inclusion in China and compare it to other BRICS nations (Fungáčová & Weill, 2015).

Financial inclusion and economic growth are linked, making financial exclusion a critical issue (Sharma, 2016). This problem is widespread in Africa, especially Botswana, where a large portion of the population relies on illegal finance or is financially excluded (Kpodar & Andrianaivo, 2011). Financial inclusion barriers greatly affect financial exclusion, emphasizing the need to remove them (Baza & Rao, 2017).

Financial inclusion may reduce complex poverty, according to studies (Liu et al., 2022). The increased global interest in implementing financial inclusion strategies to alleviate socioeconomic challenges has led to research on financial inclusion characteristics in Southern Africa (Mhlanga & Denhere, 2020). Examination of socioeconomic and demographic variables on financial inclusion in less developed countries has shown the complex interaction of numerous factors in inclusion and exclusion dynamics (Mhlanga, 2022).

Financial exclusion is an alternative to financial inclusion that emphasizes the need to address exclusionary practices in financial institutions (Bashir et al., 2022). Digital financial inclusion may promote inclusive finance

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and reduce urban-rural income inequalities (Ji et al., 2021). Fintechs may enable financial inclusion, highlighting the importance of inclusive financial systems in addressing socio-economic marginalization (Joia & Cordeiro, 2021).

This thorough overview of financial inclusion and exclusion highlights its worldwide significance and consequences for inclusive growth and poverty reduction. This research can help Botswana enhance financial inclusion and address financial exclusion issues. Secondary data will be extracted via a complete literature review, qualitative analysis, conclusions, and suggestions for this project.

Research Question 1: What are the primary factors contributing to the exclusion of the unbanked population from the formal financial system in Botswana, and how do these factors impact financial inclusion?

A. Study Hypothesis

Hypothesis 1 (H1): The factors contributing to the exclusion of the unbanked population from the formal financial system in Botswana significantly impact their level of financial inclusion.

Null Hypothesis 1 (H0): The factors contributing to the exclusion of the unbanked population from the formal financial system in Botswana do not have a significant impact on their level of financial inclusion.

B. Theoretical Framework

A research study's theoretical framework serves as a key foundation for its legitimacy and consistency. This important element establishes the framework for developing research questions, making assumptions, and creating the technique. According to (Stahl et al., 2023), a theoretical framework is a coherent combination of related ideas, definitions, and claims that are skillfully constructed to describe and forecast certain phenomena. It basically acts as a conceptual roadmap, directing the course of the study and facilitating an organized understanding of the correlations among the variables.

1. Theory and the Process of Developing Theories in Research

   A theory fundamentally represents a harmonious collection of interrelated concepts, definitions, and claims designed to explain or predict specific events or behaviors. The origin of theories in scholarly research is anchored in a systematic effort to unravel the complexities among various variables. As Weible (2023) suggests, the development of theories requires a combination of both inductive and deductive reasoning, along with hypothesis testing and concrete observations. This indicates that theories are born out of a cyclical process of identifying, examining, and empirically validating phenomena.

2. Financial Exclusion Theory

   Barriers to formal financial services define financial exclusion. Distance to financial institutions, cost, awareness, and regulatory and institutional frameworks might be hurdles (Sakanko, 2020). Because they lack access to official financial services, poor, rural, female, and young people are often excluded (Allen et al., 2016). By not using financial services, people, especially those who are unbanked, low-income, or less profitable to financial organizations, might become financially excluded (Msosa, 2021).

   Financial inclusion is understood differently in each nation, hence essential principles or propositions must be identified to explain the observed disparities in financial inclusion practices (Ozili, 2020). Governments are targeting financial inclusion for sustained socio-economic development (Noureldin Sayed & Shusha, 2019). Recent studies show that a strong financial system reduces poverty and income inequality (Claessens, 2006). When imposing stronger restrictions, financial inclusion must not be harmed (Hannig & Jansen, 2010). Interest prohibitions could affect Muslim individuals' use and demand for formal financial services, affecting financial inclusion (Demirguc-Kunt et al., 2014). Despite having access and the means to afford financial services, people may opt to exclude themselves for religious or cultural reasons (Mohieldin et al., 2011).

3. Financial Inclusion Theory

   Demirguc-Kunt et al. (2018) proposed the Financial Inclusion Theory, which states that digital financial platforms like mobile or digital money can help underbanked people access financial services. This theory emphasizes financial services, financial capacity, and financial literacy, as supported by Daud & Ahmad (2023); Yeyouomo et al. (2023). The purpose of this theory is to examine how digital financial platforms affect financial access, particularly for non-bankers. This notion is highlighted in "The Impact of Digital Financial Solutions, Provided by Mobile Network Operators (MNOs) and Commercial Banks on Botswana's Unbanked Demographic". Based on the Financial Inclusion Theory, this study examines how digital financial solutions may aid Botswana's unbanked. Digital finance processes can aid change by improving financial literacy and access to financial tools, according to the notion. To elaborate: Financial inclusion depends on people's ability to use formal financial systems. Digital platforms allow non-bankers to participate in the financial ecosystem.

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Financial Literacy and Capability: People value financial literacy and capability over access (Hasan et al., 2021). Digital financial tools can help consumers make smart financial decisions by offering information and skills. The Financial Inclusion Theory underpins the study. It guides the research's main questions, assumptions, and methods and interprets digital finance's consequences on Botswana's unbanked. The Financial Inclusion Theory underpins studies on how digital money affects Botswana's unbanked. It also guides the study's methodology and provides a theoretical framework for improvements.

II. METHODS

When the purpose of the investigation is to discover the truth by the application of scientific principles, the positivist methodology that was utilized in this study is most effective (Straub & Gefen, 2004). According to Doyle et al. (2009), it is particularly well-suited for research projects that need the formulation and testing of hypotheses with substantial sample sizes. According to Cherrington et al. (2006), the positivist approach, which is driven by a methodological focus, is extremely beneficial to the social sciences. According to Sharp et al. (2011), it assists in the creation of testable, predictive "truths" that may be applied, frequently through the utilization of numerous large-scale quantitative data sets. Additionally, Sarker & Lee (2002); Shanks et al. (2002) state that this method is recommended for conducting in-depth case studies in the field of information systems research as well as for evaluating competing concepts in the field of business process redesign.

The purpose of this study is to identify the primary factors that contribute to the majority of Botswana's unbanked people being excluded from the country's official financial system. In order to accomplish this, questionnaires were distributed to the participants. These questionnaires aimed to collect specific information on the level of financial inclusion that each individual possessed in Botswana, as well as to investigate the factors that contribute to the financial exclusion of the unbanked population of the country. It was within a radius of sixty kilometers from Gaborone that the research was carried out in the metropolitan area of Gaborone. At the end of the study, there was a response rate of one hundred percent, and the sample size for the qualitative study or random selection was 385 participants. The study had a response rate of eighty percent, which was attained by twelve out of fifteen participants, making the sample size for qualitative analysis fifteen.

Both descriptive and inferential statistical analyses were carried out on the data that was gathered by utilizing the SPSS software that was available. The descriptive statistics provided a general picture of the unbanked population's situation in terms of financial inclusion by making use of metrics of central tendency and dispersion within the data. The proportion of people who did not have access to banking services was the dependent variable, whereas the factors that contributed to financial exclusion were the independent variables. This was accomplished through the utilization of inferential methods such as chi-square testing and logistic regression in order to discover correlations between the two. With the help of this strategy, it became much simpler to identify significant correlations between a wide variety of socioeconomic and demographic variables and the experience of being excluded from the formal financial system. For the purpose of ensuring the study's validity, reliability, and credibility, extensive piloting, meticulous survey instrument design, and rigorous statistical analysis were utilized. The credibility of the qualitative component was improved by the utilization of tried-and-true methods, verification of members, and detailed descriptions. Prioritizing ethics in the research required adhering to protocols, ensuring participant autonomy, obtaining informed permission, and maintaining confidentiality. Additionally, prior to beginning data collecting, obtaining ethical approval from a review board at the University of Zambia (UNZA) was necessary.

III. RESULTS AND DISCUSSION

A. Factors contributing to financial exclusion

This section focuses on exploring the main factors leading to the exclusion of the unbanked population from Botswana’s formal financial system. Comprehending these factors is crucial for formulating strategies and interventions aimed at improving financial inclusion. The factors that this study identifies and examines are:

1. Lack of understanding of the formal financial system (LOU)
2. High fees associated with banking services (HFA)
3. Inadequate access to physical banking branches (IAP)
4. General mistrust of the formal financial system (GMF)
5. Cultural beliefs and norms acting as barriers (CBN)

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Understanding each of these factors is vital as they shed light on the obstacles and challenges encountered by Botswana’s unbanked population. This understanding is key to tackling the wider problem of financial exclusion.

B. Factors Contributing to Financial Exclusion: Lack of Understanding (LOU)

Table 4.1 illustrates the role of a lack of understanding (LOU) of the formal financial system in contributing to financial exclusion. This data offers a perspective on how the unbanked population in Botswana may feel distanced or estranged from the formal financial system due to unfamiliarity or a lack of comprehension.

Table 1 Factors Contributing to Financial Exclusion: Lack of Understanding (LOU)

LOU	*Frequency*	*Percent*
Strongly Disagree	*57*	*14.8*
Disagree	*79*	*20.5*
Neutral	*84*	*21.8*
Agree	*68*	*17.7*
Strongly Agree	*97*	*25.2*
Total	*385*	*100.0*

To complement the data presented in the table, Figure 4.1 is shown below.

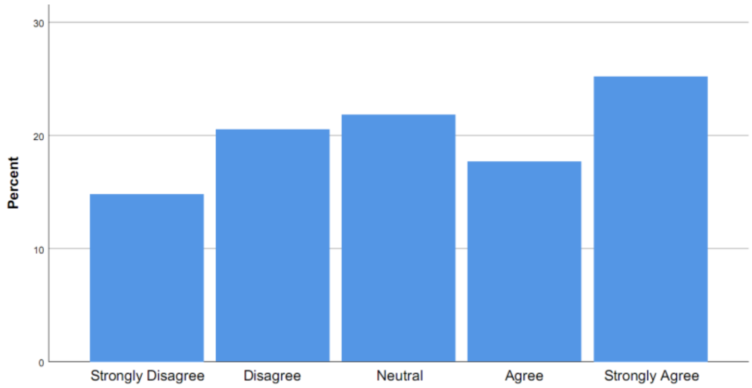

Figure 1 Graphical Representation of LOU Factor

Table 1 shows respondents' views on how comprehending the formal financial system affects Botswana's financial exclusion. The study found that 14.8% (57) of respondents believe a lack of understanding hinders financial inclusion, whereas 20.5% (79) disagree. Interesting, 21.8% (84) of participants are neutral, and 17.7% (68) believe lack of awareness causes financial marginalization. 25.2% of respondents—97 people—strongly agree that a lack of understanding of the formal financial system is a major cause of financial exclusion.

To improve regional financial inclusion, evidence shows knowledge gaps must be closed. A large percentage of respondents say a lack of understanding of the formal financial system causes financial exclusion. The combined number of agreement and strongly agreeing (42.9%) shows that financial inclusion requires knowledge of the formal financial system, underscoring the necessity for financial literacy and education. According to empirical studies in the literature review, Botswana is not alone in its confusion.

Khan et al. (2022) stressed financial literacy and education for financial inclusion. In their investor financial literacy study, Ansari et al. (2022) found financial literacy vital. These findings support earlier studies recommending targeted financial education and simpler banking procedures to close the knowledge gap and improve financial inclusion. The study emphasizes the relevance of this understanding because a lack of it can

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lead to missed financial growth and financial marginalization. Governments, financial institutions, and educators must work together to teach the unbanked how to use the formal financial system.

C. High fees (HFA)

1. High fees associated with banking services lead to the exclusion of many from the financial system (HFA)

This subsection delves into the role of high fees associated with banking services, denoted as HFA, in contributing to financial exclusion in Botswana. Table 4.2 below presents the data.

Table 2 High fees associated with banking services (HFA)

HFA	Frequency	Percent
Strongly Disagree	8	2.1
Disagree	3	.8
Neutral	106	27.5
Agree	153	39.7
Strongly Agree	115	29.9
Total	385	100.0

To complement the data presented in the table, Figure 4.2 is shown below.

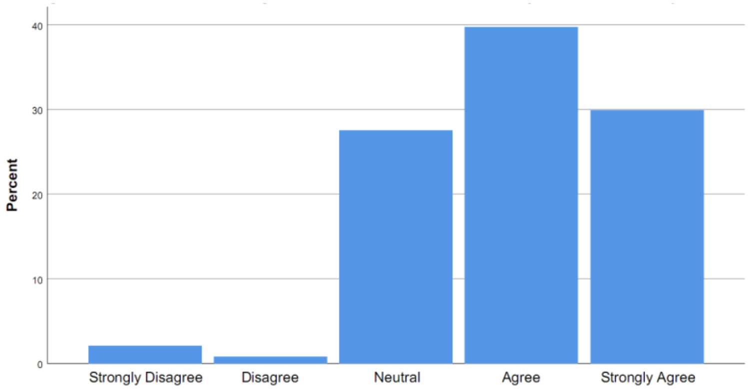

Figure 2 High fees associated with banking services (HFA)

Table 2 shows respondents' views on how high banking fees affect Botswana's financial exclusion. Only 2.1% (8 respondents) strongly disagree that high fees cause financial exclusion, whereas 0.8% (3 respondents) disagree. A sizable 27.5% (106 respondents) are neutral. 39.7% (153 respondents) believe that excessive fees hinder financial access, and 29.9% (115 respondents) strongly agree. These findings suggest Botswana residents worry about banking costs. Table 4.2 shows how high banking costs keep many people out of the financial system. Financial institutions should review their charge structures to improve financial inclusion since 69.6% of respondents agree or strongly agree that excessive costs dissuade. The World Bank (2018) and Molefe & Mokgweetsi (2020) agree that high banking fees and levies hinder financial inclusion worldwide, including Botswana. Mokgweetsi et al. (2021) found that low-income groups struggle with formal banking due to high prices. To achieve financial inclusion, banking services must be cheaper.

The study also stresses the importance of addressing this issue. High fees may deter users, especially those with limited financial resources, from using banking services. This could result in a reliance on informal financial institutions, which may offer less security and benefits. Therefore, it is imperative for policymakers, financial institutions, and other stakeholders to collaborate to make banking more affordable and accessible.

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D. Inadequate Access to Physical Banking Branches

1. Inadequate access to physical banking branches makes it difficult for some populations to engage with the formal financial system (IAP).

This subsection delves into the perceptions of respondents regarding the accessibility of physical banking branches and its impact on financial inclusion in Botswana. Table 4.3, presented below, captures the distribution of responses concerning the statement that inadequate access to physical banking branches makes it challenging for some populations to engage with the formal financial system.

Table 3 Inadequate Access to Physical Banking Branches as a Barrier to Financial Inclusion

IAP	*Frequency*	*Percent*
Disagree	*11*	*2.9*
Neutral	*90*	*23.4*
Agree	*143*	*37.1*
Strongly Agree	*141*	*36.6*
Total	*385*	*100.0*

To complement the data presented in the table, Figure 4.3 is shown below.

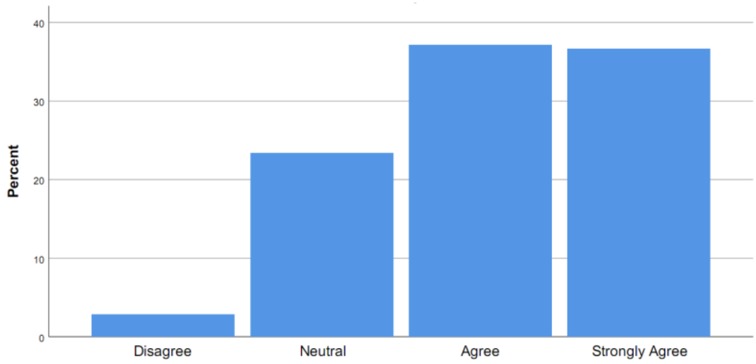

Figure 3 Distributions of Responses on Inadequate Access to Physical Banking Branches

Table 3 shows respondents' views on Botswana's financial inclusion and physical banking branch accessibility. Only 2.9% of respondents—11 people—disbelieve that restricted banking branches cause financial exclusion. However, 73.7% of respondents, 143 agreeing and 141 strongly agreeing, said the lack of physical banking facilities hinders financial inclusion. Neutral is the issue for 23.4% of responses, 90 people. This shows the necessity of physical banking branches for financial inclusion, especially in locations where digital financial solutions are viewed with mistrust.

Botswana needs real banking branches, according to the data. A majority of respondents (73.7% agree and strongly agree) believe that poor banking branch access hinders financial inclusion. Only 2.9% don't think it's important. The 23.4% neutral may be uncertain or think other things are more important. Despite the expansion of digital financial services, traditional banking offices remain important, especially in areas with limited digital literacy or trust in digital platforms. Providing physical and digital banking services in Botswana could boost financial inclusion.

The literature emphasizes the unbanked's concerns in areas with little financial infrastructure. Botswana's rural banks are sparse, limiting access to formal financial services. Many poor countries face this challenge (Mokgweetsi et al., 2021). The digital divide—limited internet access and technological penetration—also hinders financial inclusion, according to the research. Botswana's limited internet infrastructure and technology adoption hinder digital financial services (Molefe & Mokgweetsi, 2020). These digital access and physical availability

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issues warrant a multimodal strategy to financial inclusion, enabling service accessibility through several channels.

E. General mistrust of the formal financial system

1. There's a general mistrust of the formal financial system among the unbanked population in Botswana (GMF).

This subsection delves into the perceptions of respondents regarding the level of trust in the formal financial system among the unbanked population in Botswana. Table 4.4, presented below, captures the distribution of responses concerning the statement that there's a general mistrust of the formal financial system among the unbanked population in Botswana.

Table 4 Mistrust of the Formal Financial System among the Unbanked Population

GMF	*Frequency*	*Percent*
Disagree	*9*	*2.3*
Neutral	*89*	*23.1*
Agree	*144*	*37.4*
Strongly Agree	*143*	*37.1*
Total	*385*	*100.0*

To complement the data presented in the table, Figure 4.4 is shown below.

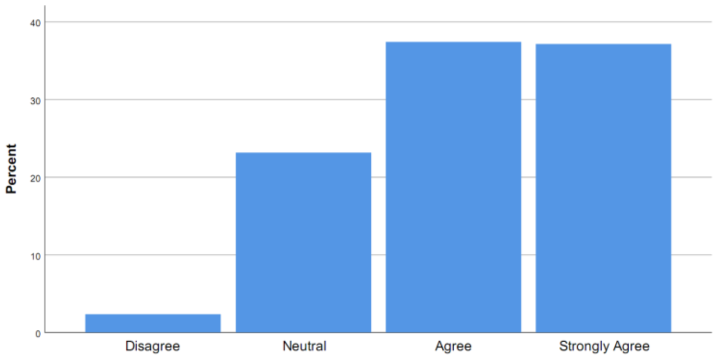

Figure 4 Distributions of Responses on Mistrust of the Formal Financial System

Table 4 presents the respondents' evaluations regarding the trustworthiness of the formal financial system. It reveals that a mere 2.3% (9 respondents) do not believe that the unbanked population distrusts the formal financial system. A substantial 74.5% of respondents (144 agree and 143 strongly agree) indicate that the unbanked population in Botswana harbors mistrust towards the formal financial system. The remaining 23.1% (89 respondents) hold a neutral stance on the issue.

The data indicates a significant skepticism regarding the formal financial system among the respondents. As a substantial 74.5% of respondents either agree or strongly agree that the unbanked mistrust the formal financial system, it is evident that financial institutions need to build trust and credibility among this demographic. The 23.1% who remain neutral could represent those who are uncertain or consider other factors to be more significant. Addressing this mistrust is essential for advancing financial inclusion, as trust constitutes the foundation of financial relationships.

The survey findings concludes that there is skepticism towards the formal financial system. It shows prevalent distrust among Botswanans towards traditional financial institutions, which raises concerns regarding their security and reliability, consequently resulting in a preference for informal financial mechanisms. The survey

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findings and literary insights highlight the necessity for financial institutions in Botswana to cultivate trust and exhibit cultural sensitivity to improve financial inclusion.

F. Cultural beliefs and norms

1. Cultural beliefs and norms act as barriers to engaging with the formal financial system (CBN)

This subsection delves into the perceptions of respondents regarding the influence of cultural beliefs and norms on the engagement with the formal financial system in Botswana. Table 4.5, presented below, captures the distribution of responses concerning the statement that cultural beliefs and norms act as barriers to engaging with the formal financial system.

Table 5 Cultural Beliefs and Norms as Barriers to Financial Inclusion

CBN	*Frequency*	*Percent*
Disagree	*10*	*2.6*
Neutral	*79*	*20.5*
Agree	*152*	*39.5*
Strongly Agree	*144*	*37.4*
Total	*385*	*100.0*

To complement the data presented in the table, Figure 4.5 is shown below.

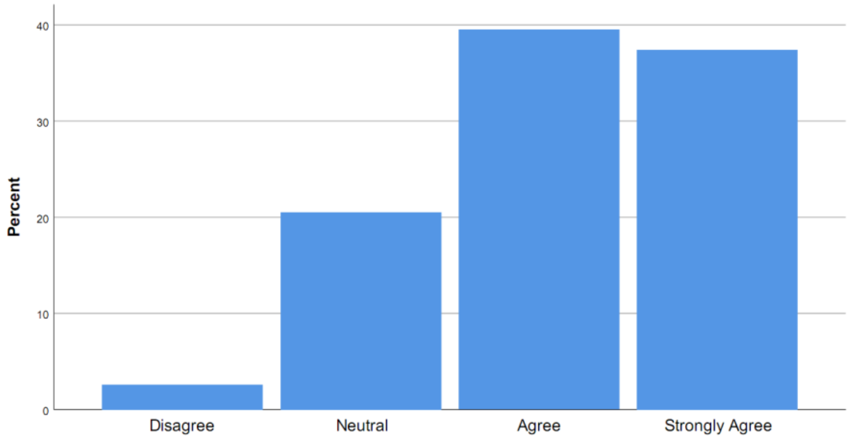

Figure 5 Distributions of Responses on Cultural Beliefs and Norms as Barriers

Table 5 illustrates the respondents' views regarding the influence of cultural norms on financial inclusion. A mere 2.6% (10 respondents) dissent from the view that cultural attitudes and norms hinder financial engagement. In contrast, a notable 37.4% (144 respondents) strongly concur, and 39.5% (152 respondents) concur that cultural attitudes and norms serve as impediments to engagement in the formal financial system. A total of 20.5% (79 respondents) maintain a neutral stance on this issue.

The research indicates that cultural norms significantly impact financial behaviors and decisions. A remarkable 76.9% of respondents either agree or strongly agree that cultural variables significantly impact financial inclusion. The indifferent 20.5% may signify persons who are ambivalent or perceive that alternative concerns are of greater significance. Confronting these cultural obstacles is essential for financial inclusion, as they significantly influence individuals' perceptions and confidence in the formal financial system. Consequently, to improve financial inclusion in Botswana, it is essential for financial institutions and governments to exhibit cultural awareness and implement tactics that resonate with local values.

The results of this study determined that cultural practices and attitudes hinder financial inclusion. Research indicates that, owing to cultural familiarity and trust, stokvels may present a more attractive savings and lending

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alternative in Botswana compared to traditional banking institutions. This inclination towards conventional processes highlights the cultural obstacles and the necessity for financial institutions to be culturally aware. The significant proportion of respondents in this study who concur or strongly concur that cultural attitudes and norms hinder financial inclusion supports these literary findings. Therefore, it is imperative for governments and financial institutions to acknowledge and incorporate these cultural subtleties into their financial inclusion plans in Botswana.

G. Data Analysis
1. Analysis of Descriptive Statistics for Factor Variables

Table 6 Factors Contributing To Financial Exclusion

Measure/Variable	*Mean*	*Std. Deviation*	*Variance*	*Skewness*	*Kurtosis*
Lack of understanding of the formal financial system contributes to financial exclusion in Botswana	*3.18*	*1.398*	*1.955*	*-0.093*	*-1.269*
High fees associated with banking services lead to the exclusion of many from the financial system	*3.95*	*0.890*	*0.791*	*-0.674*	*0.660*
Inadequate access to physical banking branches makes it difficult for some populations to engage with the formal financial system.	*4.08*	*0.843*	*0.710*	*-0.432*	*-0.783*
There's a general mistrust of the formal financial system among the unbanked population in Botswana.	*4.09*	*0.830*	*0.689*	*-0.423*	*-0.814*
Cultural beliefs and norms act as barriers to engaging with the formal financial system.	*4.12*	*0.819*	*0.671*	*-0.505*	*-0.608*

Table 6 provides descriptive statistics for different factors that contribute to financial exclusion in Botswana. Each factor is evaluated based on its mean, standard deviation, variance, skewness, and kurtosis.

The data indicates that cultural beliefs and norms, which act as barriers to engagement with the formal financial system, are the most significant contributors to financial exclusion, with a mean value of 4.12. This is closely followed by a widespread mistrust of the formal financial system among the unbanked population in Botswana, which has a mean value of 4.09. The challenge of inadequate access to physical banking branches, which hinders some populations from engaging with the formal financial system, has a mean value of 4.08.

The high fees associated with banking services also significantly contribute to financial exclusion, as indicated by a mean value of 3.95. This suggests that the cost of banking services is a concern for many. The factor with the least impact, based on the mean value, is the lack of understanding of the formal financial system, which has a mean value of 3.18 and contributes to financial exclusion in Botswana.

In terms of distribution, the standard deviation values reveal that the responses varied most for the lack of understanding of the formal financial system, while they were most consistent for cultural beliefs and norms. The skewness values suggest that the response distribution for all factors is slightly negatively skewed, implying that the majority of respondents agreed or strongly agreed with the statements. The negative kurtosis values for all factors indicate that the distribution has lighter tails and a flatter peak compared to a normal distribution.

The examination of the Descriptive Statistics for Factor Variables data highlights that the primary contributors to financial exclusion in Botswana are cultural beliefs and norms, a distrust of the formal financial system, and insufficient access to physical banking branches. Although high banking service fees and a lack of comprehension of the formal financial system also play a role, their impact is somewhat less significant. These findings underscore the necessity for customized interventions that tackle both cultural and infrastructural obstacles to improve financial inclusion in Botswana.

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H. Inferential Statistics

While descriptive statistics offer a summary of the data, inferential statistics enable us to draw conclusions or make predictions about our population from our sample data. This is the stage where hypotheses become crucial. By employing methods such as regression and correlation analysis, these hypotheses can be examined to ascertain the relationships and impacts of different factors on financial inclusion. This approach allows for a more comprehensive understanding of the dynamics at play.

I. Correlations among Factors Contributing to Financial Exclusion

Table 7 Analysis of the Correlation Table

Variable Pairing	*Correlation Description*	*Correlation Coefficient (r)*	*Significance Level (p)*
Lack of Understanding and High Fees	*Moderate positive correlation*	*.240*	*.000*
Lack of Understanding and Inadequate Access	*Moderate positive correlation*	*.289*	*.000*
Lack of Understanding and Mistrust	*Moderate positive correlation*	*.268*	*.000*
Lack of Understanding and Cultural Beliefs	*Weak positive correlation*	*.198*	*.000*
High Fees and Inadequate Access	*Moderate positive correlation*	*.231*	*.000*
High Fees and Mistrust	*Weak positive correlation*	*.180*	*.000*
High Fees and Cultural Beliefs	*Weak positive correlation*	*.145*	*.004*
Inadequate Access and Mistrust	*Strong positive correlation*	*.511*	*.000*
Inadequate Access and Cultural Beliefs	*Moderate positive correlation*	*.315*	*.000*
Mistrust and Cultural Beliefs	*Strong positive correlation*	*.482*	*.000*

Table 7 provides an in-depth analysis of the relationships between various factors that could shape individuals' views and behaviors towards financial services.

A moderate positive correlation of 0.240, which is statistically significant, is observed between "Lack of Understanding" and "High Fees". This implies that a decrease in individuals' understanding could lead to a perception of higher fees for financial services, or the other way around. "Lack of Understanding" also shows moderate positive correlations with "Inadequate Access" and "Mistrust", with coefficients of 0.289 and 0.268 respectively, both statistically significant. This suggests that individuals who lack understanding often express concerns about access and exhibit distrust towards financial services.

A less strong but still significant correlation is seen between "Lack of Understanding" and "Cultural Beliefs", with a coefficient of 0.198. This indicates that cultural beliefs may influence an individual's understanding, but the relationship is not as strong as with the other variables. Further examination of "High Fees" reveals moderate and weak positive correlations with "Inadequate Access" and "Mistrust" respectively. This indicates that individuals who perceive fees as high also often express concerns about access and exhibit some level of mistrust, but the strength of these relationships varies.

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A strong positive correlation of 0.511 is found between "Inadequate Access" and "Mistrust", suggesting that individuals who experience access challenges also tend to strongly distrust financial services. Both these variables also show significant positive correlations with "Cultural Beliefs", suggesting that cultural factors influence perceptions about access and trust. A strong positive correlation of 0.482 between "Mistrust" and "Cultural Beliefs" indicates a significant interaction between an individual's trust level in financial services and their cultural beliefs.

Furthermore, the data highlights the interconnectedness of understanding, fees, access, mistrust, and cultural beliefs in relation to financial services. While some relationships are stronger than others, the significance of the correlations across the board underscores the complex nature of challenges and perceptions in the field of financial services. A comprehensive approach that takes into account all these interconnected factors would likely be required to address these challenges.

J. Regression Statistics Analysis

The following Tables showcase the regression statistics for each dependent variable

Table 8 Regression Statistics for Factors Contributing to Financial Exclusion in Botswana

Dependent Variable	*R*	*R^2*	*Adjusted R^2*	*F-Statistic*	*Sig. Level*	*Durbin-Watson*
Lack of understanding	*0.298*	*0.089*	*0.077*	*7.390*	*0.000*	*0.438*
High fees	*0.213*	*0.045*	*0.033*	*3.590*	*0.003*	*0.910*
Inadequate access	*0.250*	*0.063*	*0.050*	*5.054*	*0.000*	*1.019*
General mistrust	*0.225*	*0.051*	*0.038*	*4.053*	*0.001*	*0.927*
Cultural beliefs	*0.261*	*0.068*	*0.056*	*5.528*	*0.000*	*0.900*

Table 8 sheds light on the elements that lead to financial exclusion in Botswana. The Durbin-Watson statistic for the "Lack of understanding" variable indicates a possible positive autocorrelation, suggesting that the residuals are not independent. The variable "Lack of understanding of the formal financial system" has an R value of 0.298, the highest among all, indicating a moderate correlation with the predictors. The Adjusted R Square value for this variable reveals that the predictors explain approximately 7.7% of the variance in the dependent variable. Conversely, "High fees" and "General mistrust" have comparatively lower R values, signifying weaker relationships with their predictors. All models in this table, except for "Cultural beliefs," which is on the edge, are statistically significant based on their F-Statistics and associated significance levels.

Every variable in this Table 5.3 significantly predicts financial exclusion in Botswana, implying that each factor has a role in determining this outcome. "Lack of understanding" emerges as a key factor, as its model accounts for the largest percentage of variance. However, the potential autocorrelation in this model warrants further examination.

K. Discussions and Findings

To determine the validity of the hypotheses, the regression statistics are evaluated.

1. Hypothesis 1 (H1):
   The factors contributing to the exclusion of the unbanked population from the formal financial system in Botswana significantly impact their level of financial inclusion.
2. Evidence from Data:
   For the dependent variable "Offering low-cost mobile banking packages tailored for the unbanked population", the F-statistic is 8.311 with a significance level of 0.000. This indicates that the model is statistically significant.
3. Finding:
   The evidence supports H1. The factors do have a significant impact on the level of financial inclusion.
4. Literature Alignment:

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The results align with the research conducted by Albert et al. (2020), which underscored the difficulties encountered by individuals upon their inclusion in the financial ecosystem. However, these findings diverge from the study by Marco (2018), which proposed that the digital divide is less significant. The importance of financial literacy, as stressed by Molefe & Mokgweetsi (2020), and the issues arising from the digital divide, as documented in the literature, are also emphasized in these findings.

IV. CONCLUSION

This study found that financially inclusive ecosystem members may be excluded for general or health reasons (Albert, et al 2020). Some people, especially in semi-urban and rural settings, can easily use technology, but others struggle (Marco, 2018). Lack of financial literacy and awareness of financial cybercrimes has exacerbated mistrust in rural areas, slowing digital technology adoption. It also highlights the difficulty of maintaining last-mile delivery arrangements, especially in rural areas. The government possesses many data items; however they are not properly used due to confusion. These data pieces include healthcare planning, social inclusion, and immunization.

A. Objective & Research Question Addressed and Recommendations:

The goals and research questions of the study have been met by this research, which has illuminated the primary factors that lead to financial exclusion. It has addressed the research question and is consistent with previous literature by exposing the different barriers and challenges faced by Botswana's unbanked populace.

The study's conclusion provides insightful information about Botswana's financial inclusion situation. It highlights the difficulties encountered by the unbanked community and offers recommendations for enhancing their availability of financial services. These results address the research objectives and questions, are in line with the literature, and provide a foundation for further studies in this area.

Further research is still necessary, though. Subsequent research endeavors may delve into the tactics and approaches employed by MNOs, commercial banks, and insurance providers in their efforts to enhance financial inclusivity. They might also investigate the difficulties that came with adoption and offer suggestions to promote financial inclusion.

REFERENCES

Achugamonu, U. B., Adetiloye, K. A., Adegbite, E. O., Babajide, A. A., & Akintola, F. A. (2020). Financial exclusion of bankable adults: implication on financial inclusive growth among twenty-seven SSA countries. *Cogent Social Sciences*, *6*(1). https://doi.org/10.1080/23311886.2020.1730046

Allen, F., Demirguc-Kunt, A., Klapper, L., & Martinez Peria, M. S. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, *27*, 1–30. https://doi.org/10.1016/j.jfi.2015.12.003

Bashir, S., Nawaz, A., & Ayesha, S. N. (2022). Financial Inclusion Profile: Socio-Economic Determinants, Barriers, and the Reasons for Saving and Borrowing in Pakistan. *International Journal of Asian Social Science*, *12*(10), 449–462. https://doi.org/10.55493/5007.v12i10.4622

Baza, A. U., & Rao, K. S. (2017). Financial Inclusion in Ethiopia. *International Journal of Economics and Finance*, *9*(4), 191. https://doi.org/10.5539/ijef.v9n4p191

Cherrington, J., Chamberlain, K., & Grixti, J. (2006). Relocating Alcohol Advertising Research. *Journal of Health Psychology*, *11*(2), 209–222. https://doi.org/10.1177/1359105306061182

Claessens, S. (2006). Access to Financial Services: A Review of the Issues and Public Policy Objectives. *The World Bank Research Observer*, *21*(2), 207–240. https://doi.org/10.1093/wbro/lkl004

Daud, S. N. M., & Ahmad, A. H. (2023). Financial inclusion, economic growth and the role of digital technology. *Finance Research Letters*, *53*, 103602. https://doi.org/10.1016/j.frl.2022.103602

Demirguc-Kunt, A., Klapper, L., & Randall, D. (2014). Islamic Finance and Financial Inclusion: Measuring Use of and Demand for Formal Financial Services among Muslim Adults. *Review of Middle East Economics and Finance*, *10*(2). https://doi.org/10.1515/rmeef-2013-0062

Demirguc-Kunt, Klapper, L., Singer, D., Ansar, S., & Hess, J. R. (2018). *The Global Findex Database 2017 : Measuring Financial Inclusion and the Fintech Revolution (English)*. World Bank, Washington, D.C.

Doyle, L., Brady, A.-M., & Byrne, G. (2009). An overview of mixed methods research. *Journal of Research in Nursing*, *14*(2), 175–185. https://doi.org/10.1177/1744987108093962

Fungáčová, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, *34*, 196–

ISSN: 2597-4785 (ONLINE)
ISSN: 2597-4750 (PRINTED)

206. https://doi.org/10.1016/j.chieco.2014.12.004

Hannig, A., & Jansen, S. (2010). Financial Inclusion and Financial Stability: Current Policy Issues. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1729122

Hasan, M., Le, T., & Hoque, A. (2021). How does financial literacy impact on inclusive finance? *Financial Innovation*, *7*(1), 40. https://doi.org/10.1186/s40854-021-00259-9

Ji, X., Wang, K., Xu, H., & Li, M. (2021). Has Digital Financial Inclusion Narrowed the Urban-Rural Income Gap: The Role of Entrepreneurship in China. *Sustainability*, *13*(15), 8292. https://doi.org/10.3390/su13158292

Joia, L. A., & Cordeiro, J. P. V. (2021). Unlocking the Potential of Fintechs for Financial Inclusion: A Delphi-Based Approach. *Sustainability*, *13*(21), 11675. https://doi.org/10.3390/su132111675

Kpodar, K., & Andrianaivo, M. (2011). ICT, Financial Inclusion, and Growth Evidence from African Countries. *IMF Working Papers*, *11*(73), 1. https://doi.org/10.5089/9781455227068.001

Liu, D., Zhang, Y., Hafeez, M., & Ullah, S. (2022). Financial inclusion and its influence on economic-environmental performance: demand and supply perspectives. *Environmental Science and Pollution Research*, *29*(38), 58212–58221. https://doi.org/10.1007/s11356-022-18856-1

Mhlanga, D. (2022). *Introduction to Digital Financial Inclusion: Revisiting Poverty Theories in the Context of the Fourth Industrial Revolution* (pp. 3–15). https://doi.org/10.1007/978-3-031-16687-7_1

Mhlanga, D., & Denhere, V. (2020). Determinants of Financial Inclusion in Southern Africa. *Studia Universitatis Babes-Bolyai Oeconomica*, *65*(3), 39–52. https://doi.org/10.2478/subboec-2020-0014

Mohieldin, M., Iqbal, Z., Rostom, A., & Fu, X. (2011). *The Role of Islamic Finance in Enhancing Financial Inclusion in Organization of Islamic Cooperation (OIC) Countries*. The World Bank. https://doi.org/10.1596/1813-9450-5920

Msosa, S. K. (2021). Leveraging the Post Office Network to Foster Financial Inclusion. *International Journal of Finance & Banking Studies (2147-4486)*, *10*(4), 141–149. https://doi.org/10.20525/ijfbs.v10i4.1488

Noureldin Sayed, M., & Shusha, A. (2019). Determinants of Financial Inclusion in Egypt. *Asian Economic and Financial Review*, *9*(12), 1383–1404. https://doi.org/10.18488/journal.aefr.2019.912.1383.1404

Ozili, P. K. (2020). Theories of Financial Inclusion. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3526548

Sakanko, M. A. (2020). Financial inclusion and women participation in gainful employment: an empirical analysis of Nigeria. *Indonesian Journal of Islamic Economics Research*, *2*(1), 1–14. https://doi.org/10.18326/ijier.v2i1.3517

Sarker, S., & Lee, A. (2002). Using A Positivist Case Research Methodology To Test Three Competing Theories-In-Use Of Business Process Redesign. *Journal of the Association for Information Systems*, *2*(1), 1–74. https://doi.org/10.17705/1jais.00019

Sarma, M., & Pais, J. (2011). Financial Inclusion and Development. *Journal of International Development*, *23*(5), 613–628. https://doi.org/10.1002/jid.1698

Shanks, D. R., Tunney, R. J., & McCarthy, J. D. (2002). A re-examination of probability matching and rational choice. *Journal of Behavioral Decision Making*, *15*(3), 233–250. https://doi.org/10.1002/bdm.413

Sharma, D. (2016). Nexus between financial inclusion and economic growth. *Journal of Financial Economic Policy*, *8*(1), 13–36. https://doi.org/10.1108/JFEP-01-2015-0004

Sharp, L., McDonald, A., Sim, P., Knamiller, C., Sefton, C., & Wong, S. (2011). Positivism, post-positivism and domestic water demand: interrelating science across the paradigmatic divide. *Transactions of the Institute of British Geographers*, *36*(4), 501–515. https://doi.org/10.1111/j.1475-5661.2011.00435.x

Stahl, G., Filatotchev, I., Ireland, D., & Miska, C. (2023). Five decades of research on the role of context in management: From universalism toward contingent, multilevel and polycontextual perspectives. *JournalAcademy of Management Collections*, *2*(1). https://research.wu.ac.at/en/publications/five-decades-of-research-on-the-role-of-context-in-management-fro

Straub, D., & Gefen, D. (2004). Validation Guidelines for IS Positivist Research. *Communications of the Association for Information Systems*, *13*. https://doi.org/10.17705/1CAIS.01324

Weible, C. M. (2023). *Theories Of The Policy Process*. Routledge. https://doi.org/10.4324/9781003308201

Yeyouomo, A., Asongu, S., & Agyemang-Mintah, P. (2023). Fintechs And The Financial Inclusion Gender Gap In Sub-Saharan African Countries. *Women's Studies International Forum*, *97*, 30. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4261752