Financial inclusion in banking: A literature review and future research directions

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Abstract

This article presents a synopsis of financial inclusion research in banking. Complementing the existing reviews of the financial inclusion literature, I offer my own thoughts on the role of financial inclusion in banking, and the role of banks in financial inclusion. I focus my discussion on the effect of bank managerial discretion and regulation on financial inclusion outcomes, and the effect of financial inclusion on the business of banking. I show that bank managerial discretion and regulation affect financial inclusion through bank cost optimization decisions and regulatory changes that may have unintended consequences, while financial inclusion affects banks by increasing the deposit base of banks, improving bank profitability, improving banks' resilience to shocks, improving bank stability and reducing bank risk. I also offer suggestions for future research directions.

Keywords: financial inclusion, banks, research, fintech, risk, stability

JEL Code: G21, G28.

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1. Introduction

This article presents a synopsis of financial inclusion research in banking. Banks are important to the economy. They are an important stakeholder in most financial inclusion discourse. The core objective of banks is financial intermediation by collecting funds from surplus units (i.e., savers, depositors, or investors) and allocating the funds to deficit units (i.e., borrowers) who need the funds to engage in growth-enhancing economic activities (Gorton and Winton, 2003; Cetorelli et al, 2012). Banks, through their financial intermediation functions, generate information about investment and lending opportunities, and they manage risks associated with lending (Adrian and Shin, 2011).

For banks to become effective, they must attract prospective depositors, customers, and clients through the process of financial inclusion. The financial inclusion process involves the onboarding of prospective depositors, customers and clients through an account opening process that meets the applicable know-your-customer (KYC) requirements in the jurisdiction where the bank operates (Gelb, 2016). After the financial inclusion process is complete, banks will be able to fully conduct banking business with the onboarded depositors, clients, and customers.

Dealing with banks offer an additional level of safety to bank depositors who will enjoy deposit insurance benefits while clients will enjoy banking services that are well regulated and non-exploitative in nature (Pennacchi, 2006; Han and Melecky, 2013). Banks that deal with depositors and clients also enjoy customers' patronage and they will have the opportunity to safe keep the funds of depositors and use depositors' funds for lending purposes to earn interest income, make profit, pay dividend to shareholders, and expand banking business (Brei et al, 2020; Bavoso, 2022). This suggests that banks and its customers are in a symbiotic relationship in which both parties gain mutual benefits, and this beneficial arrangement is made possible through financial inclusion.

Arguably, it is often asserted that banks seem to benefit more from bank-led financial inclusion than bank customers. This assertion is presumed to derive from the fact that banks can discretionarily increase the cost of basic financial services to reflect prevailing market conditions even though bank customers demand for cheaper transaction fees which banks are unwilling or unable to offer (Demirgüç-Kunt and Huizinga, 2010; Shy and Wang, 2011). At the same time, it could also be argued that banks do not gain very much from financial inclusion due to strict regulation of the cost of basic financial services offered by banks. These debates have made banks become the focus of some heated arguments in the academic and policy literatures, and it reinforces the need to understand the direction of financial inclusion research in banking.

Notably, there is growing demand by economists and policy makers for insightful research into the two-way relationship between financial inclusion and banking, and the demand for such research has never been higher than it is right now, especially now that policymakers are relying on banks to assist them in the fight against illicit financing which is carried out by financially included customers who disguise transactions towards illicit ends. Useful Insight into the relationship between financial inclusion and banking can be gained from a careful review of the existing financial inclusion research in banking. Therefore, this article critically discusses and synthesizes evidence from over 10 years of financial inclusion research in banking beginning from 2014 to 2024.

The study further contributes to the literature by providing a much-needed review of the state of financial inclusion research in banking. Existing review of financial inclusion studies such as Ozili (2021a), Duvendack and Mader (2020) and Yawe and Prabhu (2015) provide a broad overview of financial inclusion research, but these studies did not focus on financial inclusion research that are emerging in the banking literature. This study fills this gap in the literature. This study extends the literature by providing the reader with a strong sense of what is known and what is yet to be unknown in the literature. It divides the discussion into four categories: 1) the value proposition of financial inclusion for banks; 2) the banking determinants of financial inclusion; 3) the effect of financial inclusion on banking, and (4) the effect of bank regulation/supervision on the banking-financial inclusion relationship. This careful categorisation of the literature will provide the reader with a good sense of the state of the literature. The study also contributes to the critical financial inclusion literature. It contributes to the critical literature by challenging the positivist approach to financial inclusion research.

The insights gained from this article will inform and inspire the reader to generate new ideas from the current state of financial inclusion research in banking. The article draws insights from the work of other experts and also draw insights from the author's own financial inclusion research in banking to show the common struggle that academics face in understanding the role of financial inclusion in banking and the role of banks in financial inclusion, while attempting to expand the literature and offer new directions for future research.

The remainder of the article is structured in the following way. Section 2 presents some bibliometric analysis. Section 3 discusses what is known in the literature. It discusses the theories used in the literature, it reviews the existing empirical literature, it discusses the role of bank managerial discretion, cost optimization decisions in financial inclusion, and it highlights the role of bank regulation on bank-led financial inclusion. Section 4 highlights and discusses some directions for future research. Finally, section 5 concludes the study.

2. Bibliometric analysis

Before delving into the thematic review, I undertake a bibliometric analysis to identify patterns in the literature that examine the one-way or two-way relationship between financial inclusion and banking, focusing on scholarly articles that are indexed in the Google Scholar database.

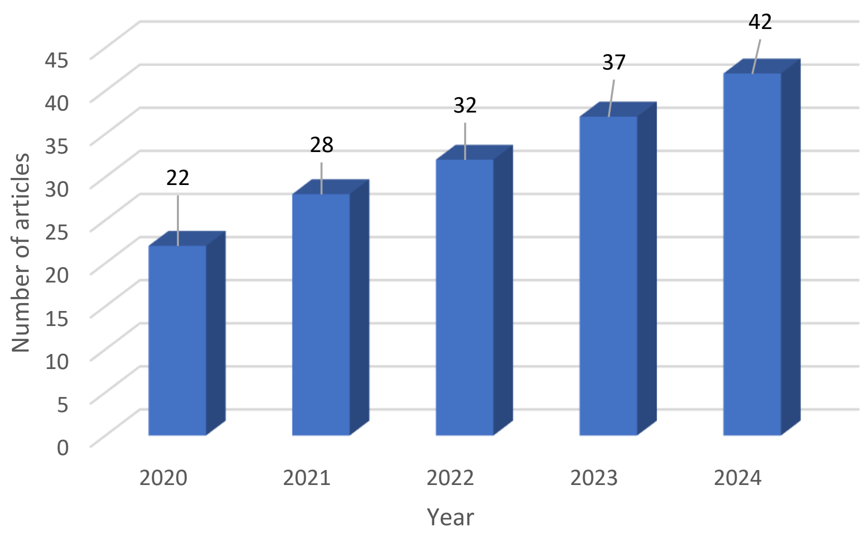
2.1. Methodology

The study adopted a thematic literature review methodology to conduct the review. In the bibliometric analysis, Google Scholar was the database used to identify the important research articles on the association between financial inclusion and banking. The article search period is from 2020 to 2024. The keywords "financial inclusion'' and "banking" or "bank" were inserted together into Google Scholar search engine at the same time, and the resulting articles were used to conduct the literature review. We focused only on journal articles to identify the patterns in the literature.

2.2. Quantity of research

Focusing only on scholarly articles indexed by Google Scholar, the search in Google Scholar showed that research into relationship between financial inclusion and banking increased from 2020 to 2024 (see figure 1). The growing interest in the topic is due to policymakers and academic researchers' interest in banks' pivotal role in promoting financial inclusion and the need to understand how banks support financial inclusion, and how financial inclusion benefits banks.

Figure 1. Articles indexed in Google Scholar



Source: Google scholar as of 23 February 2025

2.3. Geographical focus of existing studies

The geographical focus of existing studies are analysed. The Google Scholar search from 2020 to 2024 revealed the following in table 1. There were at least 23 regional studies on the link between financial inclusion and banking. African studies dominate the regional literature while few regional studies exist in the European region, with no regional studies in the Americas region.

Table 1. Geographical focus on existing studies by region

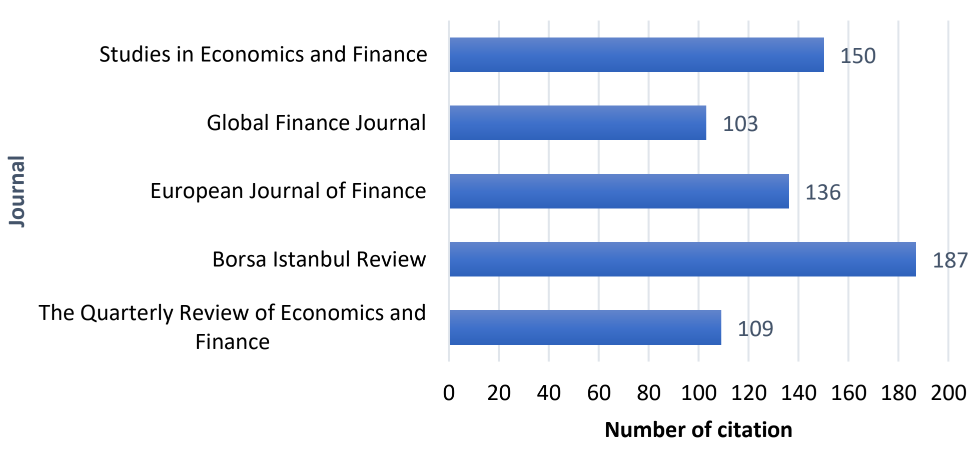
Regional States	Number of studies	Published articles
Africa	14	Chinoda and Mashamba (2021), Byukusenge et al (2021), Kebede et al (2021), Jungo et al (2021), Mengistu and Perez-Saiz (2021), Akter et al (2021), Ezzahid and Elouaourti (2021), Boachie et al (2023), Chinoda and Kapingura (2023), Issaka Jajah et al (2022), Marcelin et al (2022), Banna et al (2022), Anarfo and Abor (2020), Léon and Zins (2020)
Asia	6	Vo et al (2021a), Vo et al (2021b), Banna and Alam (2021), Na'im et al (2021), Alvi et al (2020), Pham and Doan (2020)
Australia and Pacific	2	Didenko and Buckley (2021), Chanda et al (2022)
Europe	1	Danisman and Tarazi (2020)
The Americas	0	None

Source: Google scholar as of 23 February 2025

2.4. Journal citations

The journals with the highest citations (above 100 citations) are identified and shown in figure 2. The '*Borsa Istanbul Review*' Journal has the maximum citation of 187, followed by the '*Studies in Economics and Finance*' Journal with a citation of 150, followed by the '*European Journal of Finance*' with a citation of 136. Also, the '*Quarterly Review of Economics and Finance*' has 109 citations while the '*Global Finance Journal*' has a citation of 103.

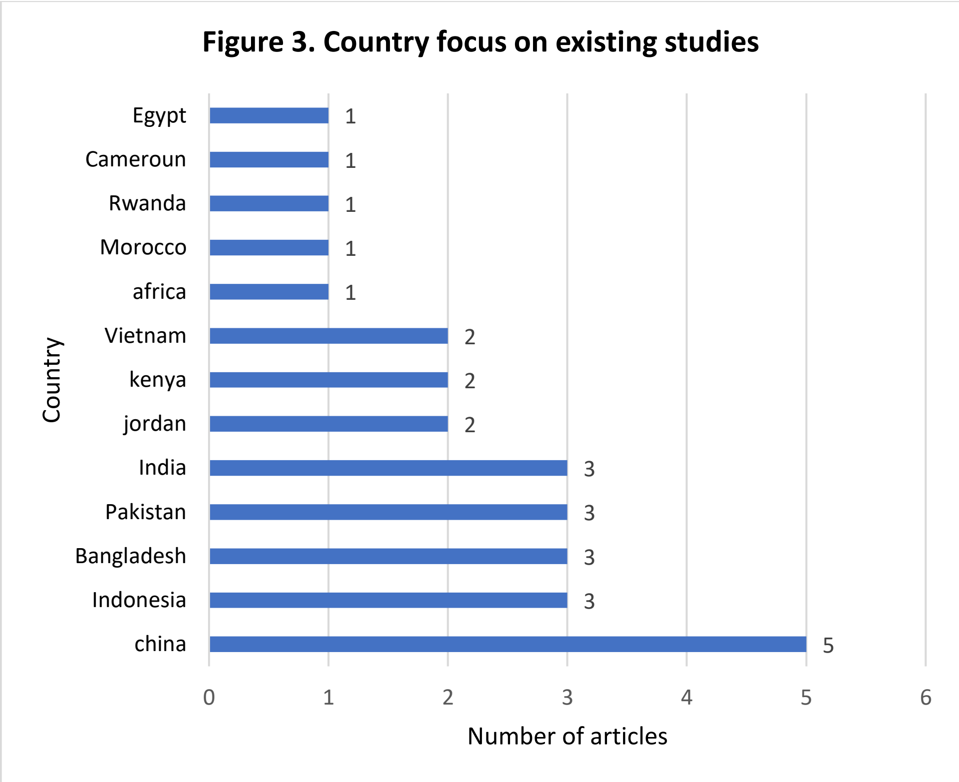
Figure 2. Top cited journals



Source: Google scholar as of 23 February 2025

2.5. Research context

The top country-specific studies in the literature are shown in figure 3. They include studies from China, Indonesia, Bangladesh, Pakistan, India, Jordan, Kenya, Vietnam, Morocco, Rwanda, Cameroun and Egypt. China has 5 studies on the association between financial inclusion and banking while India, Pakistan, Bangladesh and Indonesia have three articles each. The remaining countries report a single study in their country context.



Source: Google scholar as of 23 February 2025

3. What is known in the literature

3.1. Theory

Several theories explore the link between financial inclusion and banking. One of such theories is the theory of bank runs proposed by Douglas Diamond and Philip Dybvig in their 1983 seminal paper. The theory states that a bank run occurs when a large number of bank depositors attempt to withdraw their money at the same time over concerns about the failure of distressed banks (Diamond and Dybvig, 1983). The theory proposes deposit insurance as a solution to quell panic and reduce the likelihood of bank runs (Diamond and Dybvig, 1983). The theory of bank runs is commonly used in the banking literature to explain financial crises and banking crises. Banking scholars have also used the theory of bank runs to explain the link between banks and financial inclusion (e.g., Atellu and Muriu, 2022; Banet and Lebeau, 2022). The theoretical argument is that financial inclusion must occur first before a bank run can happen. Once financial inclusion has taken place, depositors funds will flow to banks. Panic among financially-included depositors over the possible failure of distressed banks can lead financially-included depositors to withdraw all their deposits at once, which would trigger a bank run.

Another important theory is the financial intermediation theory which argues that financial intermediaries exist to reduce transaction costs and information asymmetry by opening a checking account for the safe keeping of customers' funds, channelling funds to firms, serving as delegated monitors on behalf of savers and absorbing risk (Merton and Bodie, 1995; Allen and Santomero, 1997; Scholtens and Van Wensveen, 2003). The financial intermediation theory has two perspectives: the functional perspective and the institutional perspective. The functional perspective of the financial intermediation theory focuses on the services provided by the financial system while the institutional perspective of the financial intermediation theory focuses on the activities of financial institutions such as banks (Allen and Santomero, 1997). The institutional perspective of the financial intermediation theory is closely related to financial inclusion because it emphasizes the specific activities of banks such as opening a bank account for bank customers. This process leads to bank account ownership, and it is the first step to financial inclusion. Studies that used the financial intermediation theory to explain financial inclusion in banking research include Musau et al (2018) and Kalunda and Ogada (2019).

There is also the public good theory of financial inclusion, postulated in Ozili (2020). The theory states that basic financial services, such as formal account ownership, should be treated as a public good by ensuring that every member of the population has access to basic financial services, and ensuring that no one is left behind regardless of status and income level so that both the rich and the poor will have equal access to basic financial services (Ozili, 2020). Studies that used the public good theory of financial inclusion to explain financial inclusion include Khan and Khan (2023). Other theories that link financial inclusion to banking include the special agent theory of financial inclusion, the systems theory of financial inclusion and the institutional theory of financial inclusion which are documented in Ozili (2020).

3.2. Value proposition of financial inclusion for banks

Banks want to be part of a great idea or project that is profitable and socially impactful. Financial inclusion is one of such ideas. Several studies offer reasons why banks should be interested in financial inclusion initiatives. Ozili (2018) emphasizes that the value proposition of financial inclusion for banks, including digital banks, is that financial inclusion enables banks to receive a large base of low-cost diversified deposits, expand to new locations to attract new depositors, gain more market share, and retain customers while improving efficiency and improving the quality of banking services. Arun and Kamath (2015) emphasize that deposit mobilization through bank branch expansion is the most important value proposition that banks stand to gain from financial inclusion. In their study, they focus on the Pradhan Mantri Jan Dhan Yojana (PMJDY) financial inclusion scheme which was introduced in 2014 in India. The scheme aims to provide a zero-balance no-frills bank account for every Indian citizen. They emphasize that Indian banks used the provision of a zero-balance no-frills bank account as a justification to open more bank branches in rural areas to acquire new depositors. In a related study, Agarwala et al (2024) demonstrate that public sector banks were more effective than private sector banks in accelerating financial inclusion under the PMJDY financial inclusion scheme in India. Brown et al (2016) analysed micro-finance banks in South-East Europe and show that microfinance banks are more willing and likely to open a branch in rural areas where traditional large banks have refused to go. This gives microfinance banks the advantage of gaining market share and profit margins in rural communities by targeting low-income households, older households, and households that rely on transfer income. Sikdar and Kumar (2016) examine payment banks in India and show that the value proposition of financial inclusion for payment banks is their ability to target and win over marginalised and migrant groups within the population that have been abandoned or underserved by traditional banks.

3.3. Banking determinants of financial inclusion

The literature identifies some banking determinants of financial inclusion such as bank branch supply, foreign bank presence, bank concentration, trust in banks, fintech developments, and the economic viability of bank-led financial inclusion schemes, among others.

Célerier and Matray (2019) examine the relationship between bank branch supply, financial inclusion, and wealth accumulation in the United States. They analyse data spanning from 1994 and 2005 and find that bank branch expansion increases financial inclusion for low-income households, and it subsequently increases household wealth accumulation. Owen and Pereira (2018) focus on the structure of the banking system. They examine the effect of banking system structure on financial inclusion. They analyse 83 countries and find that banking industry concentration is a determinant of financial inclusion. They also show that greater banking industry concentration leads to greater access to deposit accounts and loans, provided that bank market power is limited. Chen et al (2024) investigate the impact of fintech developments on the financial inclusion of village and township banks in China. They analyse the micro survey data of 900 village and township banks and find that fintech developments improve the financial inclusion of village and township banks. It led the village and township banks to use online and offline mobile banking services. Kumar (2024) identifies several factors affecting financial inclusion in India which include lack of awareness, insufficient income, burdensome documentation requirements, and lack of trust in the financial system.

Some studies identify trust in banks as a factor influencing the level of financial inclusion. Broekhoff et al (2024) examine the effect of trust in banks' payment services on the financial inclusion for vulnerable groups. They find that increased trust in banks' payment services leads to higher financial inclusion for people who have difficulty walking, and for those who are wheelchair-bound. In a related study, Heyert and Weill (2024) examine the impact of trust in banks on financial inclusion in a cross-country context using micro-level data from 28 countries. They find a positive impact of trust in banks on financial inclusion for all individuals, regardless of their socio-demographic characteristics or their financial situation. Koomson et al (2023) also examine the relationship between bank trust and financial inclusion. They examine the case of households in Ghana and find that higher bank trust leads to greater financial inclusion particularly among males and urban-located residents.

Other studies identify foreign bank presence as a determinant of financial inclusion. Gopalan and Rajan (2018) were interested in understanding how the presence of foreign banks might affect financial inclusion. They examine the impact of foreign banks on the accessibility and usage dimensions of financial inclusion. They analyse the data of 50 emerging and developing countries from 2004 to 2009 and find that foreign banks have a strong positive effect on financial access, but it hinders usage of financial services. In a related study, Ali et al (2024) examine foreign bank entry as a determinant of financial inclusion. They analyse data of the permanent countries in the United Nations Security Council from 2004 to 2018 and find that foreign bank entry is associated with greater financial inclusion. Léon and Zins (2020) also show that the presence of African regional foreign banks, also known as Pan-African banks, contribute to increasing firms' access to credit in African countries. In contrast, Kebede et al (2021) show that foreign bank presence decreases the level of financial inclusion when there are many foreign banks in African countries. Overall, the findings of Gopalan and Rajan (2018), Ali et al (2024), Léon and Zins (2020) and Kebede et al (2021) suggest that foreign banks are beneficial for financial inclusion to some extent, but too much foreign bank presence may be detrimental to financial inclusion.

Other studies focus on the financial products that enable financial inclusion to take place. Ozili (2023) considered central bank digital currency (CBDC) as a determinant of financial inclusion. The author demonstrate that people without formal identification and those without a bank account can use CBDC because CBDC is designed to have low transaction fees and minimal documentation requirements which enables financial inclusion of the unbanked population. Competition has also been identified to be a determinant of financial inclusion. Mengistu and Saiz (2018) examine the determinants of financial inclusion in Sub-Saharan Africa (SSA). They assess financial inclusion in terms of the adoption of several financial products such as bank accounts, credit cards, debit cards, and bank loans. They find that competition is a significant determinant of the adoption of financial products. Marín and Schwabe (2019) document similar evidence in the case of Mexico. Fielding and Regasa (2024) also document similar evidence in the case of Ethiopia. The economic viability of financial inclusion schemes is also a determinant of financial inclusion. Markose et al (2022) show that economic viability can affect the success of financial inclusion schemes. In their study, they focus on the PMJDY financial inclusion scheme in India and show that economic viability is a determinant of the success of the PMJDY scheme. They show that maintaining the PMJDY accounts is not economically viable for majority of Indian public sector banks, and it threaten their financial fragility. Another study considered de-risking to be a determinant of financial inclusion or exclusion. Durner and Shetret (2015) argue that de-risking is a factor affecting financial inclusion. They noted the rising trend of banks cutting-off relationship with banked customers in an attempt to “de-risk” themselves from risky customer relationships. Banks do this by exiting relationships with, and closing the accounts of, ‘high risk’ clients, and the commonly cited reasons for de-risking financially included customers are low profit, reputational concerns, and rising AML/CFT scrutiny. Durner and Shetret (2015)’s argument that de-risking is a challenge for banked customers is spot-on to say the least. This is because banks often use their discretion to decide who to let in or kick out of their institution, and they can defend their action with reasons that cannot be easily overturned by regulators or the courts. However, the problem with banks de-risking financially included customers is that it occurs without the consent of the affected customers. The account closures will have a ripple effect on the individual’ or firm’s access to financial services offered by other financial institutions, and the regulatory authorities can do nothing about it if banks cite AML/CFT threats to justify their de-risking actions.

3.4. Effect of financial inclusion on banking

Several studies explore the effect of financial inclusion on different aspects of banking. The common themes in this literature are financial (or bank) stability, bank risk, bank performance or profitability and other areas.

3.4.1. Effect of financial inclusion on financial stability

A substantial literature examines the effect of financial inclusion on financial (or bank) stability. The main argument in this literature is that bank-led financial inclusion will lead to increase in low-cost diversified depositors’ funds held by banks. Banks will use the cheap deposits in their custody to shore up their liquidity position and to withstand liquidity shocks

(Morgan and Pontines, 2018). This will make banks become resilient to shocks and improve their stability. There is ample evidence to support this argument. Morgan and Pontines (2018) examine the effect of financial inclusion on the financial stability of small and medium-sized enterprises (SMEs). They were interested in assessing the effect of financial inclusion, in terms of bank lending to SMEs, on financial stability in terms of nonperforming loans (NPL) and bank Z score. They find that greater financial inclusion, in terms of increased lending to SMEs, improves financial stability by reducing NPLs and the probability of default by financial institutions. In a related study, Neaime and Gaysset (2018) examine the effect of financial inclusion on financial stability. They examine banks in Middle East and North Africa (MENA) countries and find that financial inclusion leads to greater financial stability in MENA countries. Other studies such as Siddik and Kabiraj (2018), Danisman and Tarazi (2020), Vo et al (2021), Feghali et al (2021), Saha and Dutta (2021), Wang and Luo (2022), Boachie et al (2023), Jungo et al (2024), Kebede et al (2024) and Ofoeda et al (2024) also find similar positive effect of financial inclusion on financial stability in several single country and cross-country contexts. Furthermore, Dienillah et al (2018) show that the positive effect of financial inclusion on financial stability is more pronounced in high income countries, while Ahamed and Mallick (2019) show that the positive effect is more pronounced among banks that have higher customer deposit funding share, among banks that have a lower marginal cost of providing banking services; and among banks that operate in countries with stronger institutional quality. Overall, these studies show evidence that financial inclusion is beneficial for financial (or bank) stability. However, the magnitude of the observed positive effect of financial inclusion on financial stability depends on how financial inclusion and financial stability are measured.

3.4.2. Effect of financial inclusion on bank performance

A related literature focus on the effect of financial inclusion on bank profits. The main argument in this literature is that banks will earn more fee income from newly banked customers and earn interest income from lending to existing and new customers, and this will improve the overall profitability of banks (Kumar et al, 2022; Yakubu and Musah, 2024; Aloulou et al, 2024; Vo and Nguyen, 2021; Issaka Jajah et al, 2022). Existing studies document evidence to support this argument. For instance, Kumar et al (2022) examine the impact of financial inclusion on bank profitability in Japan. They analyse 122 Japanese banks from 2004 to 2018, and find that lower financial inclusion, in terms of branch contraction, reduces the profitability of Japanese banks. The findings imply a positive relationship between financial inclusion and bank profitability. Shihadeh et al (2018) also investigate the relationship between financial inclusion and bank profitability in Jordan and find a significant positive impact of financial inclusion on bank profitability. Their findings imply that financial inclusion contributes to enhancing bank performance.

In a related study, Vo and Nguyen (2021) examine the effect of financial inclusion on bank performance in Asian countries. They analyse 1,507 banks in emerging markets in Asia from

2008 to 2017. They measure financial inclusion using an index which is made up of the indicators of penetration and utilisation of financial products and services. They find that financial inclusion has a significant positive impact on bank performance in the Asian region. Aloulou et al (2024) also examine the effect of fintech-led digital financial inclusion on bank performance in the United Arab Emirates (UAE). They obtain data from 260 UAE banks and find that fintech-led digital financial inclusion has a positive impact on the competitiveness and performance of UAE banks during the COVID-19 pandemic. Despite this, the evidence appears to be mixed in sub-Saharan Africa (SSA). For instance, Issaka Jajah et al (2022) examine the case of SSA countries. They investigate the impact of financial inclusion on bank profitability in SSA countries from 1990 to 2017. They find a positive relationship between the financial inclusion index and bank profitability, implying that financial inclusion is a significant driver of bank profitability. In contrast, Yakubu and Musah (2024) examine the impact of financial inclusion on bank profitability in SSA countries from 2000 to 2017. They find that financial inclusion negatively affects bank profitability in SSA countries particularly in the post-global financial crisis period.

Overall, these studies show evidence that financial inclusion is mostly beneficial for bank profitability. Despite the evidence, it is expected that different financial inclusion indicators will have differing impact on various measures of bank profitability such as non-interest income, return on equity and net income margin.

3.4.3. Effect of financial inclusion on bank risk

Another important theme in the literature is the effect of financial inclusion on bank risk. There are two main arguments in the literature. One argument is that bank-led financial inclusion decreases bank risk if banks onboard less-risky customers by ensuring that new customers comply with existing know-your-customer (KYC) regulations. The expectation is that the KYC requirement will help banks to weed out high-risk customers, leading to a decrease in bank risk (Marcelin et al, 2022). The second argument is that bank-led financial inclusion provides banks with cheap deposit funds which reduces banks’ funding risk and liquidity risk, and it reduces the incentive for bank managers to take more risks (Shihadeh, 2020; Ozili, 2021b). The third argument is that fintech-led financial inclusion offers risk-transfer benefits for banks because banks will not lend to high-risk borrowers. As a result, high-risk borrowers will migrate to fintech lenders to obtain loans. The resulting transfer of credit risk from banks to fintech players will reduce bank risk (Banna et al, 2021). There is ample evidence to support these arguments. Banna et al (2021) investigate the effect of fintech-based financial inclusion on risk-taking of banks. They analyse 534 banks from 24 Organisation of Islamic Countries (OIC) countries and find that greater fintech-based financial inclusion reduces the risk-taking behaviour of banks. In a related study, Marcelin et al (2022) examine the effect of financial inclusion on bank risk in 84 countries from 1996 to 2020. They find that financial inclusion reduces bank risk, implying that financial inclusion provides banks with cheap funding sources, and it reduces banks’ moral hazard problems and risky behaviour.

Shihadeh (2020) investigates the relationship between financial inclusion and bank performance and bank risk in MENA countries. They find that greater financial inclusion in the region increases bank performance and decreases bank risk. Based on the findings of Shihadeh (2020), Banna et al (2021) and Marcelin et al (2022), it seems that financial inclusion mitigates bank risk through banks' careful onboarding of less-risky customers using KYC rules and banks' access to low-cost deposit which decreases liquidity risk and overall bank risk.

Some studies examine bank risk in terms of nonperforming loans. Chen et al (2018) examine the link between financial inclusion and non-performing loans in 31 provinces in China from 2005 to 2016. They find a negative impact of financial inclusion on bank non-performing loans. In a related study, Ozili (2021b) examines the association between financial inclusion and financial risk in the financial system. The author finds that higher financial inclusion, in terms of higher account ownership, leads to greater financial risk through high non-performing loans and cost inefficiency in the financial sector of developed countries, advanced countries and transition economies. Chinoda and Mingiri Kapingura (2024) examine the effect of fintech-based financial inclusion on bank risk-taking in the Sub-Saharan African (SSA) region. They analyse 10 SSA countries from 2014 to 2021 and find that fintech-based financial inclusion mitigates risk-taking by decreasing the non-performing loans of commercial banks in SSA countries. Hakimi et al (2024) investigate the effect of financial inclusion on credit risk in the MENA region. They analyse MENA banks from 2004 to 2017 and find that financial inclusion reduces the level of non-performing loans. The findings of Chen et al (2018), Hakimi et al (2024) and Chinoda and Mingiri Kapingura (2024) are insightful because they suggest that fintech-based financial inclusion mitigates bank risk-taking through a credit risk transfer mechanism that push high-risk customers from banks to fintech lenders who are willing to take on those risks.

Overall, these studies show consistent evidence that financial inclusion, whether bank-led or fintech-led, can dampen bank risk particularly credit risk. However, the literature does not provide much evidence to suggest that financial inclusion can dampen other types of bank risk such as investment risk, insolvency risk, operational risk, and counterparty risk, etc. This is a fruitful area for future research.

3.4.4. Effect of bank concentration, shadow banking and firm performance

Other studies examine the effect of financial inclusion on different aspects of banking. For instance, Lu et al (2020) examine the impact of financial inclusion and bank concentration on the availability of SME financing in China. They analyse 1,509 listed SMEs in China from 2007 to 2017 and find that financial inclusion has a positive impact on the credit available to listed SMEs; however, the positive impact of bank concentration is diminished when the level of financial inclusion is high. Chauvet and Jacolin (2017) examine the impact of bank-led financial inclusion on firm performance in developing and emerging countries. They examine 55,596 firms from 79 countries and find that financial inclusion, i.e., the distribution of financial services across firms, has a positive impact on firm growth and the positive impact is greater for firms that operate in less-concentrated banking markets. Isayev (2024) investigates the link between financial inclusion, financial stability, and shadow banking in 11 emerging market economies from 2010 to 2021. They find that financial inclusion has a negative impact on financial stability, while shadow banking weakens the negative effect of financial inclusion on financial stability.

3.5. Role of bank regulation: to regulate or not to regulate?

Regulation plays an important role in accelerating or hindering bank-led financial inclusion. The rationale for regulatory intervention in bank-led financial inclusion is that banks are capitalist institutions whose motive is primarily to make profit. Their profit motive can lead banks to undertake arbitrary pricing of banking products and services to the detriment of bank customers and depositors (Heffernan, 2002). For this reason, regulatory intervention is required to ensure fair pricing of banking services and ensure equitable access to affordable basic banking services.

In the literature, Chen and Divanbeigi (2019) examine the role of financial regulation in financial inclusion and find that regulatory quality increases financial inclusion. In other words, higher regulation is associated with higher formal account ownership. Neuberger (2015) also show that strong financial consumer protection and credit reporting regulations help to accelerate financial inclusion in Germany. The findings of Chen and Divanbeigi (2019) and Neuberger (2015) suggest that regulation has a positive impact on financial inclusion, and it implies that regulatory intervention is essential to increase financial inclusion.

Regulating bank-led financial inclusion has positive benefits and negative consequences. On the positive side, scholars argue that bank regulators should promote financial inclusion by (i) providing a regulatory framework that empower banks to accelerate financial inclusion (Chen and Divanbeigi, 2019), (ii) ensuring that basic banking services are delivered at low cost and in line with the provider's actual costs (Claessens and Rojas-Suarez, 2016), (iii) ensuring that the cost of basic banking services is non-exploitative to low-end bank customers (Kodongo, 2018; Aziz and Naima, 2021), and (iv) ensuring that newly banked customers have access to the most basic banking services (Allen et al, 2021;).

Regulating bank-led financial inclusion has some consequences. Kodongo (2018) was interested in determining which type of financial regulation harms financial inclusion. Kodongo (2018) show that know-your-customer (KYC) rules, bank capital rules and liquidity regulations hinder financial inclusion in Kenya. Other scholars are of the view that regulating bank-led financial inclusion is neither helpful nor needed for financial inclusion. Instead, they advocate that competition should be encouraged because competition is a great leveler (Claessens and Rojas-Suarez, 2016; Owen and Pereira, 2018). Competition can drive down the cost of banking services as more customers move away from banks whose banking products are expensive towards banks whose banking products are cheaper (Claessens and Rojas-Suarez, 2016). This view also emphasize that there should be free entry into banking markets, and financial service providers should flood the market with diverse basic banking products and services so that underserved customers will have many options to choose from (Claessens and Rojas-Suarez, 2016), and in the process, they will choose banking products that are affordable. This can be achieved without regulatory intervention.

The negative effect of regulating bank-led financial inclusion can also be seen in the market for loans. Bank regulators often introduce regulations that compel banks to issue more retail loans to unbanked adults and underserved customers that banks consider to be risky (Thamae and Odhiambo, 2022). In this context, Mehrotra and Yetman (2015) argue that if regulation is used to compel banks to grant more loans to individuals, households, and SMEs, it could give rise to elevated credit risk. Consequently, greater financial inclusion could ultimately lead to rapid credit growth and higher credit risk which can threaten the stability of banks (Mehrotra and Yetman, 2015). Therefore, Mehrotra and Yetman (2015) called on regulators to avoid using regulation to compel banks to accelerate financial inclusion due to the potential for unintended consequences. Rather, the focus of regulation if regulation must be introduced should be to increase the number of financial service providers, reduce entry barriers into the banking market, and encourage the supply of innovative banking services that meet the unique needs of unbanked and underserved customer segments.

3.6. Bank managerial discretion, cost optimization decisions and financial inclusion

Bank managers can use their discretion to accelerate financial inclusion, but it comes at a cost. Understanding the cost involved in bank-led financial inclusion is important because it would enable the reader to understand why most basic banking services, which are designed to increase financial inclusion, cannot be offered free-of-charge.

The cost of bank-led financial inclusion includes (i) the cost of producing banking products and services, (ii) the cost of attracting and retaining banked customers, and (iii) the cost of delivering banking products and services to end users. The cost of producing banking products and services includes the cost of opening a new bank branch in unserved and underserved locations, the cost of moving equipment to a new bank branch, the cost of hiring and relocating bank employees to the new bank branch, the operational cost of running the bank branch, the cost of employee wages, and the cost of creating a mobile banking app that will be used to serve customers (Carenys and Sales, 2008). The cost of delivering banking products and services to end users includes the transaction fees charged to users, the interest rate on loans, and other usage costs (Lepetit et al, 2008). These costs are passed on to existing and new bank customers as transaction costs. The cost of attracting and retaining newly banked customers includes the cost of undertaking community outreach, the cost of hiring competent customer service representatives, the cost of post-onboarding marketing, the cost of financial literacy programs, etc. (Lewis, 2013; Durkin et al, 2015).

The goal of bank-led financial inclusion is not only to make banking services available, but to also attract new customers to use banking services and to retain them. Attracting and retaining customers require continuous innovation and customer-centric solutions. The literature show that managers can attract and retain new customers in several ways. One, bank managers can attract and retain new customers by creating an attractive visually enticing and user-friendly website which can act as a digital storefront and a digital point of contact for the bank (Firdous and Farooqi, 2017). Two, bank managers can use mobile apps to bring banking to the fingertips of new customers. Creating a mobile app will enable newly banked customers to effortlessly manage their accounts, make transfers, and access a wide range of banking services in real time and with enhanced security (Firdous and Farooqi, 2017). This can play a major role in building trust, customer loyalty and customer satisfaction. There should also be commitment by managers to stay up to date with technological developments that enhance the functionality of mobile apps in a seamless and secure way (Jun and Palacios, 2016). Three, bank managers should also put in effort towards multi-channel marketing. Banks should broaden their marketing efforts using several channels including rural community visitation, social media, digital channels, and targeted email campaigns (Durkin et al, 2015). Bank managers should also put in some effort to take their marketing campaign to locations where potential unbanked customers are most active to ensure maximum visibility and engagement with banking services (Durkin et al, 2015). Four, bank managers may also need to provide financial literacy programs to unbanked customers so that they will see the need to use banking services. Bank managers can do this through word-of-mouth financial education, creating financial education visual content and distributing financial education content that fosters financial literacy. This will help to simplify complex financial concepts and make banking more appealing to unbanked customers and it will enable banks to foster long-term relationships with customers. Five, bank managers can use technology to ensure a seamless bank account opening and document verification process (Gallego-Losada et al, 2023). This will ensure that the initial interaction of unbanked adults with banks is seamless, easy for new customers and eliminate unnecessary complexities in the onboarding process for new customers.

4. Directions for future research

In this section, I offer some directions for future research. The most notable areas to advance the literature are generative artificial intelligence (AI), the role of bank managerial discretion in financial inclusion, increasing financial inclusion for forcibly displaced persons, the role of bank CEO gender in financial inclusion, and the effect of windfall gains tax on financial inclusion.

4.1. Using generative AI to increase bank-led financial inclusion

Generative AI is making significant inroads into banking. Generative AI is the type of AI that generates content, text, images or sounds from existing trained data (Sleiman, 2023). Common examples of generative AI are ChatGPT, GitHub copilot, DeepSeek and Microsoft copilot. The factors encouraging the use of generative AI in banking include advancement in machine learning algorithms, the abundance of data, the need to reduce cost, and the increasing demand for personalized customer experience in banking (Sleiman, 2023). These factors have led banks to use generative AI to improve productivity, increase value creation, detect fraud in real-time, predict customer needs, manage customer relationships, improve customer experience, perform sophisticated risk simulations, enhance risk assessment, generate credit scoring, improve investment decisions, and enhance compliance and regulatory reporting (Krause, 2023). Despite this, the potential to use generative AI to increase bank-led financial inclusion has not been explored in the literature. There is a need to explore how banks can use generative AI to increase financial inclusion. This can be achieved by using AI tools to analyse population data and predict the population segments that are likely to be underserved and unserved with basic banking services so that banks can serve the identified population segment. Generative AI can also be used to increase access to credit by generating AI-powered credit scores. The generative AI system can analyze thousands of datapoints generated from customers' financial activity and use the data to determine an individual's likelihood of repaying a loan. This can be used to develop a credit score and enhance access to credit.

4.2. Influence of bank managerial discretion on financial inclusion

In section 3, I show that bank managerial discretion is important for financial inclusion. Assume that a bank has introduced a plan to increase financial inclusion from 100,000 customers to 200,000 customers. After the Bank's Board has approved the financial inclusion plan, the way in which operational managers implement the plan can either hinder or foster greater financial inclusion. But the literature has not explored, in great depth, the role of managerial discretion in influencing financial inclusion outcomes. It is possible that agency problems may arise when operational managers are not given enough incentives to align their interest to the interest of owners in achieving the expected financial inclusion target. It is also possible that cost consideration can lead bank managers to adjust or abandon the initial financial inclusion plan if it has become too expensive to implement. Bank managers may also make adjustments to the number of bank branches to be opened, adjustment in the type of digital technology to deploy to accelerate financial inclusion and adjustment in the cost of marketing to attract unbanked customers. The problem with such adjustments is that it can lead to a reduction in the number of newly financially-included people from the intended 200,000 customers to 145,000 customers. The above illustration shows that bank managerial discretion can influence financial inclusion outcomes. Therefore, there is a need for more research into how bank managerial discretion can influence financial inclusion outcomes.

4.3. Increasing financial inclusion for forcibly displaced persons through banks

The literature is also silent on how banks can increase financial inclusion for forcibly displaced persons who are undocumented foreigners such as undocumented migrants, refugees, and asylum seekers. This group of people are often financially excluded because they do not meet the KYC requirements required by most banks in the host communities. The KYC verification process is a challenge for forcibly displaced persons who lack legal status and formal identification in the country. Banks need to verify identities of potential customers and assess their risk for money laundering, terrorist financing, or other financial crimes. As a result, forcibly displaced persons cannot access useful and affordable financial products and services. More research is needed on how banks can devise regulatory-compliant strategies that make it possible for undocumented migrants, refugees, and asylum seekers to access useful and affordable financial products and services that meet their needs in a responsible, non-discriminatory, and sustainable way. The chosen strategy should be one that removes the financial constraints facing forcibly displaced persons and help them to rebuild their economic livelihoods, store money, build up savings, send or receive money transfers and carry out day-to-day financial transactions.

4.4. Bank CEO gender and financial inclusion

The literature shows that female bank CEOs take less risks than male CEOs (Skała and Weill, 2018), and they tend to focus more on social impact by improving non-financial performance (Prabowo et al, 2017). The literature also documents that female microfinance bank leaders may be gender biased in their financial access decisions (Strøm et al, 2023). However, what remains unknown in the literature is whether the gender of a bank CEO matters for financial inclusion irrespective of the type of bank. It is interesting to determine whether female bank CEOs put in significant effort to increase financial inclusion for all customer segments or whether they tend to focus on increasing financial inclusion for women. This topic is an important area for further research because many recent efforts to increase financial inclusion have prioritized financial inclusion for women[1] and there are suggestions in policy circles[2] that putting women as bank CEOs can help to accelerate financial inclusion for both

[11] This includes the provision of gender-specific loans, and gender-specific savings products.
[2] This has been a discussion in some of the policy forums hosted by Alliance for Financial Inclusion

women and all segments of the population. While this hypothesis is interesting, existing studies have not offered insights into this issue. Therefore, future studies should explore whether the presence of a female bank CEO matters for financial inclusion. Future studies should also explore whether there is a significant difference in the levels of financial inclusion attained during the tenure of a female bank CEO and a male bank CEO. Such insight can help to answer the question on whether bank CEO gender matters for financial inclusion.

4.5. Taxing windfall gains as incentive for selective financial inclusion by banks

The literature is silent on the role of windfall gains tax in selective financial inclusion. Banks that operate in environments where regulators tax their documented windfall gains will be selective in driving financial inclusion. The reason for this is obvious. Bank-led financial inclusion would make most banking transactions visible to regulators and will enable regulators to identify and tax banks' windfall gains as a tactic to redistribute wealth in society. Banks are opposed to such income redistribution regardless of whether the windfall gains were a result of luck or being smart in business. For this reason, banks may be reluctant to ensure full financial inclusion in all their business activities to avoid the prying eyes of regulators into its profits particularly windfall gains. Banks will have incentives to hide windfall gains by ensuring that their dealings or activities in sectors that generate windfall gains are not processed through bank accounts, thereby making it difficult for regulators to track or gain visibility into those activities or to tax their windfall gains. Consequently, banks may not be achieving financial inclusion as much as they should because they want to avoid regulatory scrutiny into the banking segments where they intend to make windfall gains. Future research can test this argument by investigating whether windfall gains tax provides an incentive for banks to be selective in deciding the business areas where financial inclusion should take place and the business areas where financial inclusion should not take place.

5. Conclusion

This article presented a comprehensible point of entry to financial inclusion research in banking. It highlighted some observations on financial inclusion research in banking and offered some directions for future research. The dominant theories in the field are the theory of bank runs and the theory of financial intermediation. The theory of bank runs links financial inclusion to banking by proposing that financial inclusion must occur first before a bank run can happen and once financial inclusion has taken place, depositors' funds will flow to banks before they flow out of banks during a bank run. The financial intermediation theory links financial inclusion to banking from the institutional perspective which emphasizes the specific activities of banks such as opening a bank account which promotes financial inclusion. The widely accepted value proposition of financial inclusion for banks is that financial inclusion can increase banks' access to low-cost diversified deposits, lead to bank branch expansion, increase market share and customer retention. Despite this value proposition, there are certain banking factors that affect the level of financial inclusion, and which should not be ignored. They include bank branch supply, foreign bank presence, bank concentration, trust in banks, fintech developments, central bank digital currency adoption and the economic viability of bank-led financial inclusion schemes, among others. Financial inclusion also affects banking particularly bank stability, bank performance, bank risk, nonperforming loans, bank concentration, shadow banking and firm performance. Regulation also plays a role in the link between financial inclusion and banking. Regulation ensures that access to banking services is fair, equitable and affordable while its negative consequence is that regulation can lead to an increase in bank risk. Furthermore, the cost of bank-led financial inclusion should also be considered particularly the cost of producing banking products and services, the cost of attracting and retaining banked customers, and the cost of delivering banking products and services to end users. These costs need to be optimized so that only the residual costs are passed on to existing and new bank customers as transaction cost in a fair and responsible way.

Finally, some opportunities for future research were recommended such as the need to use generative artificial intelligence (AI) to increase financial inclusion, the role of bank managerial discretion in financial inclusion, the role of banks in increasing financial inclusion for forcibly displaced persons, the role of bank CEO gender in financial inclusion, and the effect of windfall gains tax on bank-led financial inclusion.

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