Closing the Financial Inclusion Gender Gap to Unlock Women's Entrepreneurial Capacity in Tanzania

Cornel Joseph & Chakupewa J. Mpambije

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Authors: Cornel Joseph & Chakupewa J. Mpambije
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ABSTRACT

The importance of an inclusive financial system is widely known in development policy and is perceived as a priority yet complex issue in many countries. This study examined the drivers of financial inclusion and its gender gap in Tanzania using the World Bank's Global Findex database for 2021. The study adopts a binary logit model to identify the determinants of financial inclusion and the Fairlie (1999) decomposition to examine the contribution of these factors to the gender gap in financial inclusion. The empirical results suggest that employment, shortening distance, better education, legal documentation, and high income improve an individual's chances of being financially included. The decomposition results confirm the gender gap in financial inclusion in favour of male households, to which education (mainly secondary and higher) and higher income quintiles contribute positively and significantly to the observed gender gap. Thus, any policy action geared towards improving the level of financial inclusion of disadvantaged women should focus on enhancing their level of education, employment, and access (proximity) to financial institutions.

1. INTRODUCTION

1.1 Background of the Study

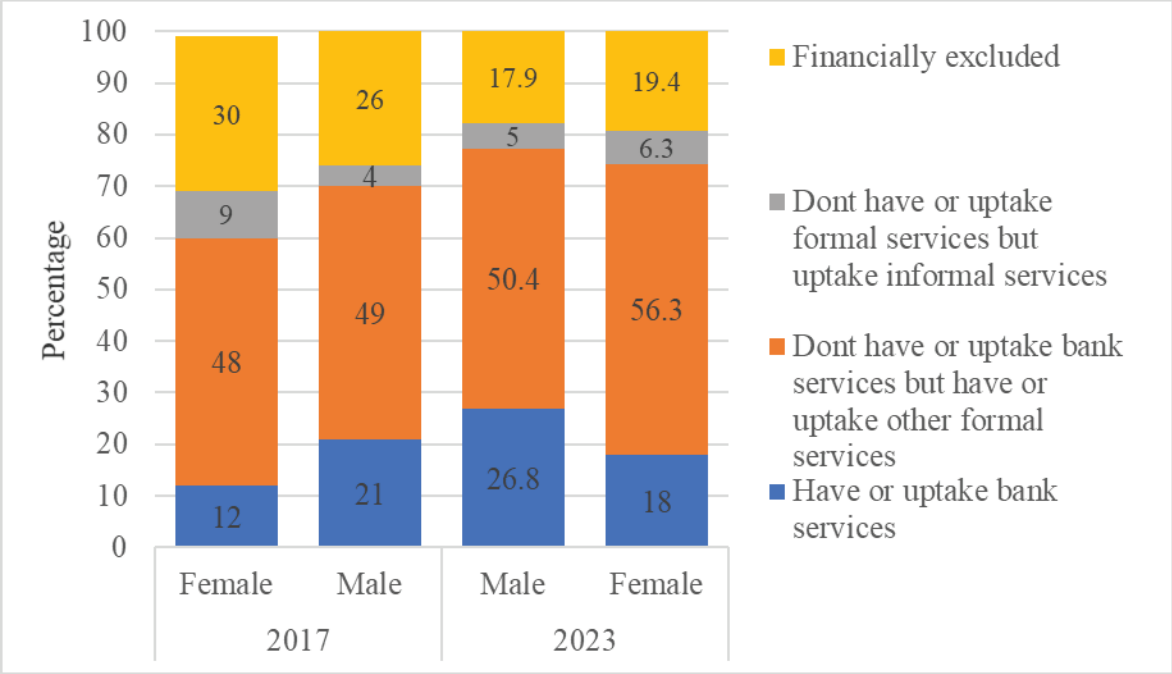
Financial inclusion is a cornerstone for economic progress and advancement, providing essential financial services and products to individuals and businesses marginalized from the conventional financial system. A lack of financial inclusion can pose a significant obstacle to economic growth and development by constraining the capacity of individuals and businesses to engage in the economy actively. Conversely, financial inclusion is a potential strategy for unlocking entrepreneurship capacity, reducing household income shocks, eliminating poverty, and ensuring more sustainable and equitable development (Akileng et al., 2018). Recent analyses of financial inclusion emphasize that better access to formal services facilitates a reduction in financial vulnerability while contributing to smooth consumption among economically disadvantaged groups (Balasubramanian et al., 2018; Moore et al., 2019; Ruiz, 2013). In addition, women with access to bank accounts, savings mechanisms, and other financial services can control their earnings and undertake personal and productive expenditures (Ashraf et al., 2010; Islam et al., 2014). They can also grow their businesses, choose where and how to work (Field et al., 2016), raise their productivity and earnings, and reduce their chances of being poor (Suri & Jack, 2016; Swamy, 2014). Financial inclusion is, thus, liberating for women in many ways.

Sub-Saharan African (SSA) countries strive to implement financial inclusion initiatives by providing a broader array of financial services for the marginalized, including the poor and women. For instance, the growing financial innovations such as mobile money, internet banking, and electronic payment systems have tremendously transformed the financial landscape in SSA, thus reaching a large population that was previously excluded (Pazarbasioglu et al., 2020; Were et al., 2021). However, the gender gap has persisted despite the growth in the number of people with access to financial services and is more pronounced among the poor. In 2021, for instance, SSA reported a gap of 12%, which is twice as large as the developing economy average (6%) and three times larger than the global average (4%) (Demirgüç-Kunt, 2022). It is also noted that women still face barriers to access and use digital financial services, as the existing conventional financial products do not seem to reach them as desired (Were et al., 2021). Thus, women are still largely financially excluded compared to men.

In the case of Tanzania, in 2017, 30% of women were excluded, compared to 26% of men. Similarly, in 2023, 19.4% of women were excluded, as opposed to 17.9% of men. However, there has been a significant decrease in female financial exclusion from 30% in 2017 to 19.4% in 2023 (Figure 1). This change is a result of the rapid growth of mobile banking, which addresses the limitations of the traditional banking sector. Furthermore, the gender gap in formal financial inclusion has decreased from 10 percentage points in 2017 to 3 percentage points in 2023. However, the gender gap in banking remains

largely unchanged, with men being approximately 9 percentage points more likely to be banked than women. Nonetheless, in 2023, women were 5.9% more likely than men to use other formal financial services, as indicated in Figure 1. Additionally, women are more inclined to use informal financial services compared to men, with 6.3% of women using such services compared to 5% of men. The data from Figure 1 shows a declining trend of female uptake of informal financial services from 9% in 2017 to 6.3% in 2023, whereas male uptake of informal financial services has increased from 4% to 5% over the same period.

Figure 1: Financial Inclusion in Tanzania over 2017 to 2023 by Sex



Source: FinScope Tanzania, 2023

A critical examination of the current body of evidence reveals barriers hindering women from financial inclusion. In some parts of the world, women are not allowed to become legal owners of productive resources, such as land or property. Most banks require collateral to lend and demand a minimum balance requirement to open an account. Also, documentation requirements to open an account in a financial institution can eliminate women, particularly in rural areas and the informal sector, if they lack official pay slips or proof of residence assets be registered in the borrower's name (Were et al, 2021; Kikula, 2018; Mori, 2014). These requirements disfavour women whose business revenues are small and irregular. Scholars have noted that removing the gender gap in financial inclusion is essential for promoting women's economic and social empowerment and boosting countries' development (Ghosh & Vinod, 2017; Kazemikhasragh *et al.*, 2022). Against this background, this study intended to analyse the drivers of the gender gap in financial inclusion in Tanzania, drawing upon non-linear

decomposition techniques in Tanzania. These results will better inform policymakers on the status and barriers that hinder women's financial inclusion in Tanzania. Using the World Bank's Global Findex database for 2021, the decomposition analysis was carried out using the Fairlie (1999) approach.

1.2 Problem Statement

The growing awareness of the contribution of financial services has made the Government of Tanzania embrace financial inclusion as a priority in its national development vision and poverty reduction strategies. Consequently, Tanzania has made remarkable strides in expanding the opportunities for people to access and use financial services. The FinScope Tanzania of 2023 reported that the uptake of formal financial services reached 76% in 2023 compared to 65% in 2017. The report further reveals that such progress is attributed to the rapid adoption and usage of digital platforms that offer financial services, mostly mobile money services. Despite this progress, women are still lagging behind men. They remain disproportionately excluded from the formal financial sector. According to FinScope Tanzania 2023, 19.4% of women are still excluded, against 17.9% of men. However, the formal financial inclusion gender gap has narrowed from 10% points in 2017 to 3% points in 2023, but still, men have more access to formal financial services than women. This lower level of women's financial inclusion and severe financial inclusion gaps in Tanzania motivated and justified our study. Evidence from Tanzania continue indicating lower use of formal financial services among women caused mainly by existing gender differences in educational attainment and income levels. However, the presented evidence is still weak since most previous empirical work on the issue has focused on analysing the indicators as determinants of the gender gap in financial inclusion in Tanzania. This analysis does not consider these determinants' weight or contribution to explaining the financial inclusion gender gap. Therefore, this reported study was intended to find ways to overcome this limitation by applying the Fairlie decomposition technique.

1.3 Objective of the Study

The primary objective of this research study was to analyse the determinants of the gender gap in financial inclusion in Tanzania. Specifically, the study aimed: -

(a) To examine the socio-economic determinants influencing financial inclusion in Tanzania.
(b) To dissect the gender gap in financial inclusion within the Tanzanian context.
(c) To scrutinize how gender disparities in socio-economic variables contribute to the gender gap in financial inclusion in Tanzania.

2. LITERATURE REVIEW

2.1 Financial Inclusion and Gender Dimension: A Global Overview and Its Status

Financial inclusion is among the hotly debated discourse in the economic development realm at the global level. This is because there have been significant disparities in how each individual, regardless of background, setting and even orientation, in developed and developing countries, benefits from diverse introduced financial packages. However, the term financial inclusion is described differently across scholars as follows. For instance, Hundie and Tulu (2021) equated financial inclusion with the bloody economy as it needs to circulate in an economy, like blood does in the human body. According to the World Bank (2018), financial inclusion is what people and/or their companies strive to access to potential and affordable financial products and services that cater to them more responsibly and sustainably. On the other hand, Ndashau and Njau (2021) define financial inclusion as the uptake and use of savings, credit, insurance, and money transfer services offered by formal and quasi-formal financial institutions at an affordable cost and time. Anderson (2010) explained financial inclusion as the state in which individuals, companies and businesses have reliable access to financial services, including savings and borrowing, regardless of individual net worth, company size or enterprise capital size. Such explanations connote how individuals can access diverse financial services as they keep innovating from traditional banks, microfinance, mobile money services, and all digital currencies in developed and developing countries.

Once efficiently applied and implemented, financial inclusion fosters poverty reduction, especially in rural areas, through basic access to payment, savings, credits and insurance services. This view is correctly shared by Omar and Inaba (2020), who posited that financial inclusion is a panacea to poverty eradication and ending social exclusion. In a more direct way, financial inclusion helps to reduce poverty through broadening access to credit, insurance and enhancing entrepreneurial possibilities through access to credit. This eventually raises income and consumption of individuals and strengthens productive assets for the marginalized through investment in education, health and new technologies (Nsiah et al, 2021). In the final analysis, financial inclusion helps individuals acquire assets, invest in education, and set up a business that would enable them to improve their standard of living (Baidoo et al, 2019; Sakyi et al, 2021). Thus, widening financial inclusion can reach the less privileged people in rural areas of society, as well as young people and women. In Sub-Saharan Africa, for instance, financial inclusion has been identified as a means to achieve nearly half of the Sustainable Development Goals (SDGs) including eliminating extreme poverty (SDG-1), achieving good health and well-being (SDG-3), fostering quality education (SDG-4) and promoting gender equality (SDG-5) (World Bank, 2018). Empirically, a study by Dawood et al, (2019) in Indonesia revealed that financial inclusion has the tendency of reducing households from absolute

poverty. A study held in Ghana found that financial inclusion tends to reduce the likelihood of households being poor by 27% and can therefore avert how households are exposed to future poverty by 28% (Koomson, et al, 2020).

While financial inclusion has been credited for poverty reduction, thereby igniting entrepreneurial capacity, some groups do not equally benefit from financial inclusion and consequently suffer from what Simba and Tajeddin (2023) term as involuntary exclusion. This arises from insufficient income and high-risk profile, or due to discrimination, market failures and imperfections. Dittus et al. (2011) add that involuntary exclusion includes a lack of trust in the financial system or barriers, such as affordability, inappropriate product design, and inability to meet eligibility criteria. When the exclusion is so pronounced due to its involuntary nature consequently results in disparities among the potential beneficiaries of the financial inclusion, affecting the uptake of diverse economic activities. One of the aspects that has, over time, suffered from financial exclusion has been gender, in which women have suffered than men, causing the existence of a gender gap. Evidence shows that while at the global level, the existence of a gender gap is narrowing, in developing countries, the gap is still pronounced. For instance, in 2017, the gender gap in account ownership stood at 7% globally and 9% in developing countries (Were, 2021). Further evidence portrays that of the 1.7 billion adults globally who do not have bank accounts, about 56 percent are women (Singh & Singh, 2023). Such disparity poses a great risk that limits women from prospering in entrepreneurial ventures due to a lack of loans, credits, and even insurance.

There also exists a gender gap in Sub-Saharan Countries (SSA) in terms of how women and men access and utilize financial-related services to boost their entrepreneurial ingenuity. This is notwithstanding the rapid growth in digital financial services and efforts towards advancing equality for women through economic opportunities (Wandeda, et al, 2023). For instance, while the global gender gap is 7%, it is 9% in SSA. Based on the latest Fin Scope data for 12 countries, the gender gap in the SADC region is 5%, which is slightly below the SSA average. Fanta & Mutsonziwa (2016), using the SADC region in a comparative way, show that females are less banked than males, with a 6% gap. Females have less access than males, except in South Africa, where it is vice versa. The gender gap varies across countries, with Botswana (14%), Swaziland (14%), and Mauritius (11%) having the largest gap and the Democratic Republic of Congo (DRC) (2%) having the smallest gap. A study by Zawaira, et al (2021), which combines studies from 34 countries in SSA for the years 2011, 2014 and 2017, found that about 25% of women-owned bank accounts, while 11% had savings accounts, and 5% borrowed from a financial institution in relation to men. More data indicate that SSA lags behind on gender gaps regarding using financial goods and services within formal financial institutions (Yeyouomo & Agymang-Mintah, 2022). Furthermore, a study by

Aterido et al (2013) concluded that in SSA, men are more favourably disposed to embracing financial systems than women in the selected countries. Similarly, Mohammed et al (2017) found that women in SSA are disadvantaged and suffer high levels of financial exclusion.

Regarding specific SSA countries, it still portrays the existence of a gender gap, which hinders women's struggle in enterprise development. For instance, empirical evidence from Kenya shows that despite significant progress made in expanding financial inclusion, there exist critical gender gaps in which 66% of women can access mobile money compared to 84% of men, whereas only 67% of women have bank accounts compared to 82% of men (Johnen & Mubbhoff, 2022; Wandeda et al., 2023). Also, in Ethiopia, the gender gap in financial inclusion is so high such that it greatly affects women's usage and accessibility to financial services. This is cemented by Hundie and Tulu (2023) who revealed that in all indicators of financial inclusion, men are far ahead of them by 6.3% (formal account), 7% (formal serving), 9.8% by formal borrowing, 8.4% emergency fund and 5.8 in debit card ownership. However, not all countries in SSA have the same level of gender gap in financial inclusion. For instance, according to Fanta and Mutsonziwa (2016), of all countries in SSA, the largest gender gap is present in Tanzania (9%) followed by Mauritius (8%) and the Democratic Republic of Congo (8%), while country with the lowest gap is Swaziland. This is because the large gap in formal access is offset by the gap in informal access and South Africa, where fewer females than males are financially excluded.

Tanzania has made recommendable strides regarding financial inclusion, which increased from 50% to 60% in 2017. Such achievement, however, has not gone hand in hand with the observation of the gender gap, which is higher among other SSA, standing at 9.4% in almost all indicators, namely formal account, formal savings, formal credit, and mobile money account (Fanta & Mutsonziwa, 2016). According to the survey conducted in Tanzania by Finscope in 2017, women account for 60.7% over 70.1% of men regarding formal access to financial services (Were et al., 2021). Still, regarding ownership of digital financial instruments, women in Tanzania lag behind, as GSMA (2019) showed that 77% of women owned a mobile phone compared to 86% of men. This disparity hinders women from accessing and utilizing all potential financial inclusion that could have enhanced their benefit from entrepreneurship endeavours. As a result, most of the benefits and achievements that women might have accrued through engaging in financial inclusion are being enjoyed by men in the country.

2.2 A Gendered Financial Inclusion: Why It Matters in Entrepreneurial Development

There is burgeoning literature that subscribes to the importance of financial inclusion in the development of entrepreneurship (Bello, 2022; Ajide, 2020). This is even more

pronounced when financial inclusion considers women who have been sidelined for the past decades. Evidence posits that, while the gender gap still exists, the more women get involved in financial inclusion, the more they develop their entrepreneurship, which bridges the gap between men and women (Bayero, 2015). As such, financial inclusion in its entirety has played a greater role in the development of entrepreneurship. For instance, Akileng et al. (2018) argue that financial inclusion helps an individual to make savings, get loans and protect individuals against shocks and unforeseen risks. It is also postulated that financial inclusion promotes the birth of new innovative companies and the expansion of existing ones, while creating jobs that contribute to national development (Ajide, 2020). Thus, if financial inclusion is enhanced in developing entrepreneurship, chances can strengthen economic empowerment and reduce poverty significantly and income inequality, as this leads to the active participation of the youth, women and other groups who were previously excluded (Siddik, 2017; Hendrik, 2019). With a major focus on women, evidence shows that, contrary to previous times when traditional financial services were utilized, the number of women entrepreneurs was very few since models of attaining finance were very difficult.

Over time, diverse innovations in digital banking and accessing mobile banking have increased women's access and utilization of finance, which are used to develop financial enterprises. For instance, data shows that more than 126 million women have established their own enterprises globally, and 94 million of them have expanded their enterprises to the extent of providing employment to local communities (Nziku & Henry, 2020). The increase in the number of women entrepreneurs has been experienced in Tanzania, where, according to Willibard and Mbura (2017), women-owned businesses account for 54% of all SMEs and 60% of all micro-enterprises. Most of these women engage in selling clothes, wholesaling, retailing, hair salons, food vending, handicrafts, Mobile money, micro-financing, tailoring, selling charcoal, selling fish, selling vegetables (Willibard & Mbura, ibid). In most cases, these women entrepreneurs have relied more on the current simplified mechanism of women accessing financial services.

In Tanzania specifically, efforts have been put in place to drive women's participation in financial inclusion to streamline entrepreneurial growth. Some of the efforts include the government enactment of several legislations and policies to ensure financial inclusion, which women have to benefit. Some of these legislations include the inauguration of an e-financing system, which was evidenced through (a) the National Payment System 2015, (b) electronic money regulation, (c) the Banking and Financial Act 2011, and (d) electronic payment schemes and the mobile payment regulation (Kihamba, 2020). It is through these legislations and other policies that resulted in the financial institutions targeting and stimulating women entrepreneurs. For instance, up until 2012, two financial institutions were established focusing on women's entrepreneurship only.

These were Tanzania's Women Bank (TWB) and the Covenant Bank for Women (CBW) in 2008 and 2011, respectively (Mori, 2014). Other commercial banks inaugurated special windows for micro, small and medium enterprises, which focused on women, like the CRDB, NMB, Standard Chartered Bank, Akiba Commercial Bank (ACB), the National Bank of Commerce and Barclays (Mori, 2014). There has also been a surge in the introduction of micro-financial institutions (MFIs) like BRAC, FINCA and PRIDE, with a large female customer base. For instance, BRAC has more than 110,000 clients, of whom 80% are women, while FINCA, with more than 100,000 clients, has 60% women clients (Mori, 2014). The list of financial institutions also covers SACCOS and village community banks (VICOBA), which have become a source of capital for financing women's businesses (Mori, 2014).

2.3 Women's Constraints to Financial Inclusion: A Tanzanian Case

Efforts to ensure that women entrepreneurs participate and enjoy the advantage of financial inclusion have been highly popularized. This is due to the benefits that have been evidenced by women entrepreneurs bridging the existing gender gap, especially in financial inclusion. In Tanzania, as with other developing nations, efforts by women entrepreneurs to fully partake in financial inclusion have faced diverse hurdles that have continued to widen the gap with their male counterparts (Were, et al., 2021; Idris, 2018). One of the most striking barriers to women's financial inclusion is the social-cultural issues that deter women from effective involvement in financial inclusion. Like any other developing country, it is asserted that Tanzania places women as inferior due to tribal norms, negatively impacting women's financial inclusion (Roy & Patro, 2022). According to Aterido et al. (2013), women are expected to perform reproductive work, while men are busy developing their careers. This tendency makes women economically weak and involuntarily excluded from the financial system (Perrin & Hyland, 2023).

A study by Ndunguru (2006), held in Mtwara, Lindi, Ruvuma, Iringa and Mbeya in Tanzania, found that culture was an important explanatory factor influencing entrepreneurship motivation and start-ups, automatically affecting even financial inclusion. Moreover, a study by Mashenene et al. (2014) investigated the socio-cultural determinants of accessing financial services among the Chagga and Sukuma in Tanzania using a questionnaire survey, which involved 254 respondents. The findings from the study indicated that values, social factors, beliefs, norms and perceptions were a hindrance to women accessing financial services, thus increasing the gap in financial inclusion. Such findings are in tandem with what GSMA (2019) found in Tanzania that women were less confident about independently acquiring the digital skills required to use a mobile phone and were more concerned about the consequences of making mistakes. As a result, very few women own bank accounts, as they cannot open a bank account or other financial account in their own name. Given the higher levels of illiteracy among women, the stringent legal and regulatory requirements for opening and

operating a formal account, including the need for proper documents for identification purposes, can also act as a deterrent (Maina, 2018).

The financial literacy question and specifically mastering digital-related skills fall among the reasons hindering women's access to financial services, leading to an increased financial inclusion gap. Ulwodi et al. (2017), using the 2014 Global Findex dataset, barriers to financial inclusion across sub-Saharan Africa (SSA), found that literacy rates have a significant effect on the level of account ownership. In a study by Were et al. (2021), in Tanzania, found that existing financial literacy affects women's financial knowledge and their uptake of the technological skills that can boost awareness and use of modern financial technology. Moreover, a study by Mori (2014) further indicated that female entrepreneurs in Tanzania generally have lower levels of financial literacy, which also increases their credit risk. According to the GSMA (2019), women in Tanzania are often less confident about independently acquiring the digital skills required to use a mobile phone and are more concerned about the consequences of making mistakes. Literacy skills remain a major challenge as 72% of Tanzanians can read and write in Kiswahili, compared with only 27% who can read and write in English, yet English remains the main mode of communication for most formal financial products, and indeed for digital applications (Saluja & Kumar, 2023). This hinders both the uptake and use of formal financial services. With a lack of financial knowledge and skills, women cannot access financial services and the benefits of the formal financial system, making them economically dependent on men and confined to the vicious circle of low investments, low income and low profits (Manta, 2019).

Women entrepreneurs in Tanzania are challenged by economic handicaps that deter them from effective participation in financial inclusion, thus extending the gender gap. Atkinson and Messy (2013) state that people with low income tend to be excluded from formal financial services, as those services seem expensive and unsuitable. It has been recited, for instance, that for women to access loans, they are supposed to possess different kinds of collateral, mostly immovable ones, of which many women do not possess (Were, 2021). Given the nature of Tanzanian tradition and custom, women do not legally own land, houses and even large plantations with their title deeds, which can be used to seek loans (Idris, 2018). Moreover, Ellis et al (2007) add that women's difficulties in accessing finance are closely linked to their limited land rights since women are neither named nor are their interests noted on land titles, hence making it difficult for them to access formal sources of credit, which are mostly tied to the provision of titled land as collateral. Again, due to economic challenges, most women operate their ventures usually at a very small scale with low profits and with no or very few employees, which decreases their access to formal finance, as these sectors, especially when unregistered, are seen as less important for economic development (Bennett, 2010). Due to being economically handicapped, women in Tanzania fail even to open and maintain a bank account due to lack of the minimum balance required to

open a bank account. In most cases, the amount required is relatively high compared to women's average income, hence continuing to exclude them from financial inclusion.

The existing legal framework and the legal environment in which women operate appear to infiltrate them into partaking through financial inclusion. One of the significant challenges is the higher interest rates that are charged to women who want to access loans. To a large extent, and given the weak economic capacity, women do not take loans from formal institutions; instead, they focus on informal sectors to access loans. According to a study by Mori (2014), which involved 212 women entrepreneurs from Dar es Salaam, Mwanza, Dodoma, and Tanga found that 85% of women interviewed financed their start-ups from their savings, mainly due to high interest rates and collateral requirements.

Moreover, findings from Tanzania by Ahmed and Jianguo (2014) indicated that apart from interest rates, other charges that hinder women from participating in financial inclusion include service charges for using ATMs, which are said to exert pressure on the customers, affecting their general usage of the services. The study realised further that the charges put on various services are, in most cases, destructive to the overall mood of the respondents to utilize the services of the financial institution. Again, accessing loans from financial institutions requires women to have various documentation, including business plans, financial statements and bank statements, proof of income, asset ownership, contracts and proof of payment habits (Irwin & Grayson, 2007). This is further hardened by the fact that many women live in the informal sector, where their houses are not formalised, as many others live in rented houses, such that they don't own permanent addresses (Sanderson et al., 2018). As a result, this renders women unable to trust existing financial institutions (Sanderson, ibid), so they resort to the informal financial sector, thus widening the gender gap and, hence, financial exclusion. Lotto (2018) argues that, due to diverse legal frameworks that hinder women's to access financial services states that, even if women can gain access to a loan, they often lack access to other financial services, such as savings, digital payment methods, and insurance, which are critical for successful financial inclusion.

2.4 Synthesis and Research Gap

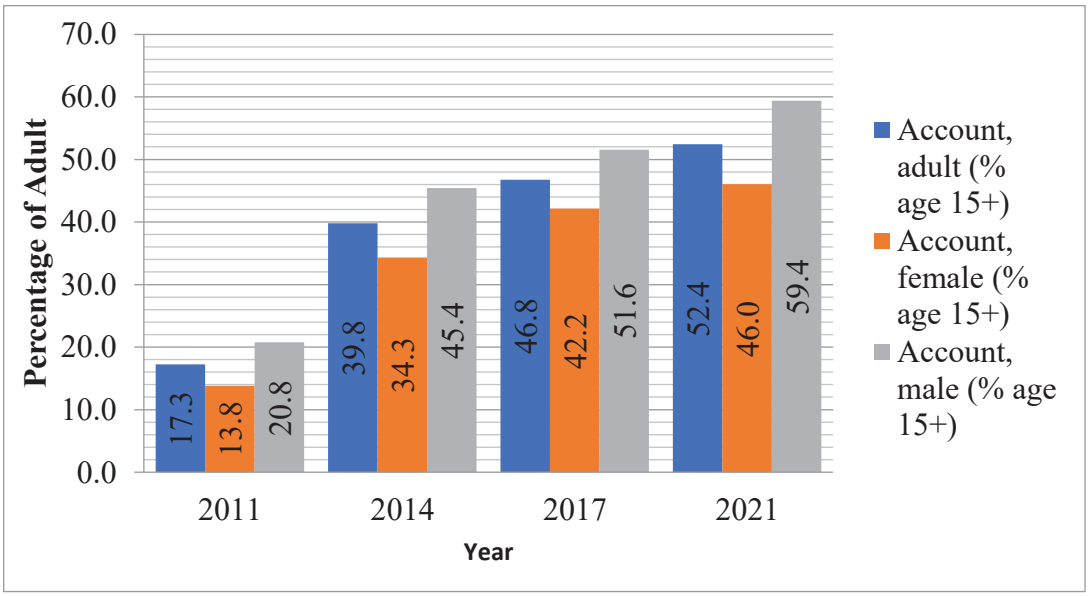
There is ample evidence that financial inclusion among women entrepreneurs in Tanzania can increase economic growth and close the existing gender gap (Were et al., 2021; Idris, 2018). Given the introduction of various financial products, including digital financing, Tanzania has made considerable strides in ensuring financial inclusion for enhancing entrepreneurship growth and reducing poverty (Elouardighi & Oubejja, 2023: Klapper et al., 2019). While efforts to benefit from financial inclusion have been revered among women entrepreneurs in Tanzania, there are also clear indications that women in Tanzania have not managed to tap the existing potential of financial inclusion to excel in entrepreneurship endeavours. There have been efforts among scholars who have strived

to write on the subject (Lott, 2018; Mwakyusa, 2017; Lema, 2017). However, the scope and breadth of the matter need further deliberation. There is still untapped knowledge on the determinants of closing the financial inclusion gender gap to unlock women's entrepreneurial capacity in Tanzania. Moreover, several studies have been conducted employing previous World Bank's Global Findex database for 2011 and 2015 (Demirgüç-Kunt, 2012; Demirgüç-Kunt, et al, 2015), whose findings might not reflect the current innovation and dynamics through digital financing, which might have influenced closing the gap of financial inclusion among women entrepreneurs. Because of this fact, this study attempts to underscore how the effort to close the gender financial inclusion has been achieved toward ensuring that women's entrepreneurial potential is unlocked. To empirically perform this, this study employed the World Bank's Global Findex database of 2021. The study attempted to underscore the milestones achieved since the previous World Banks' Global Findex was released and what has not been achieved among women in Tanzania in their efforts to unlock their entrepreneurial capacity for financial inclusion.

3.FINANCIAL INCLUSION IN TANZANIAN CONTEXT

As the first objective of this study, this section presents the results on the status of financial inclusion in Tanzania. It displays the patterns and trends of financial inclusion by sex. Additionally, it offers some insights into the gender-disaggregated patterns of financial inclusion in Tanzania. Figure 2 illustrates that the proportion of adults with an account increased from 20.8% in 2011 to 54.9% in 2021. However, male adults are more likely to have an account than female adults. More specifically, in 2021, 59.4 percent of male adults had an account compared to 46 percent of female adults.

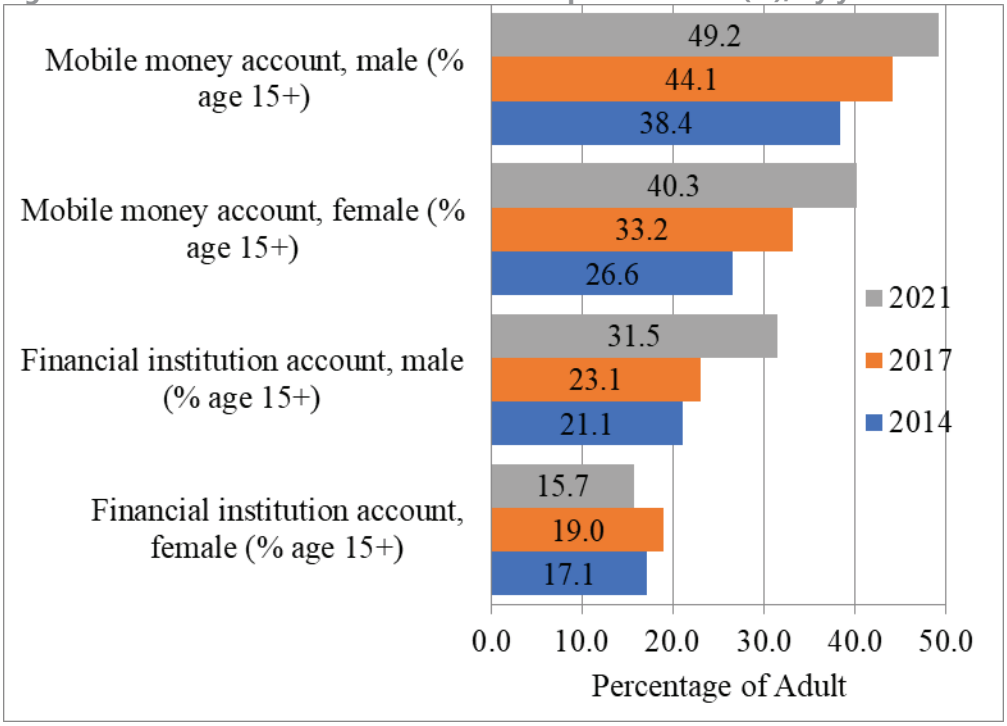
Figure 2: Adults with an account (%) 2014–21



***Source*:** FINDEX, 2021

Moreover, Figure 3 shows the trends in male and female financial and mobile money account ownership in Tanzania as a percentage of the total adult population (age 15+). The uptake of mobile money services in Tanzania has increased, but females are still less likely than males to own mobile money accounts. Likewise, males with accounts in financial institutions continued to outpace females (Figure 3). Consequently, economic participation and opportunities for women remain limited.

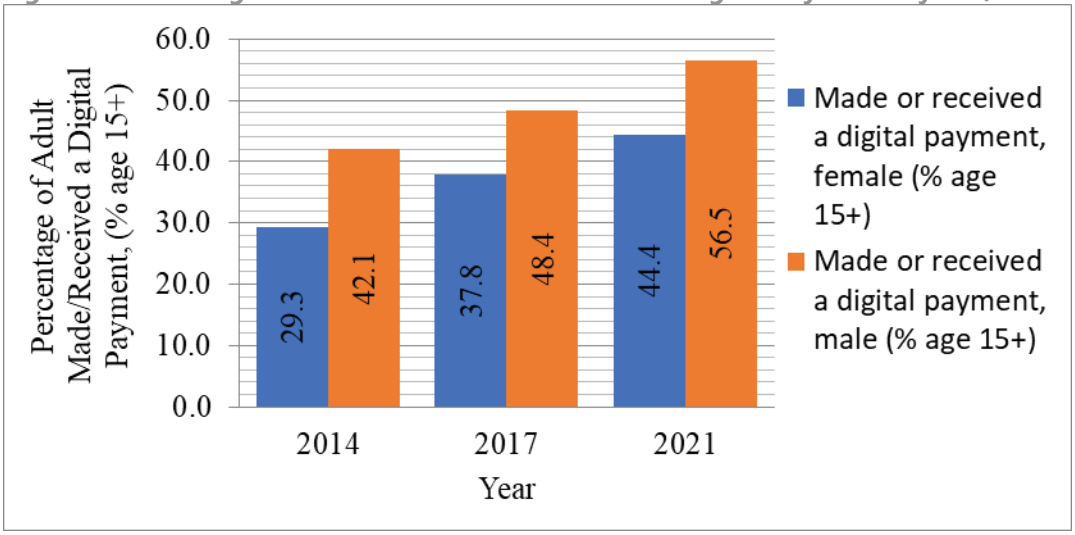
Figure 3: Male and Female Account Ownership in Tanzania (%), by year



Source: FINDEX, 2021

Furthermore, Figure 4 shows the males and females who made or received a digital payment in Tanzania over the 2014 to 2021 period. Figure 3 shows that the proportion of females who have sent or received a digital payment continues to grow, but the gender gap remains stagnant, where females are less likely to have made or received a digital payment than males. The share of females making or receiving digital payments in Tanzania grew from 29.3 per cent in 2014 to 44.4 percent in 2021, whereas males grew from 42.1 percent to 56.5 percent in the same period (Figure 4).

Figure 4: Percentage of Adults who Made or Received Digital Payments by Sex, 2014-2021

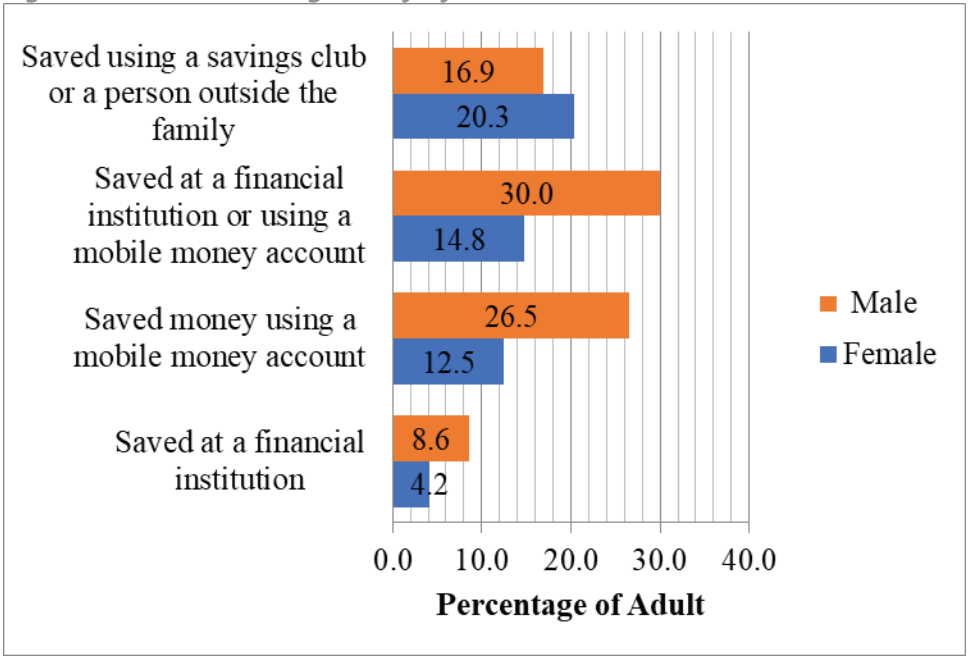


Source: World Bank FINDEX Database 2021

For saving, Figure 5 shows that there are more savings outside formal financial institutions. Generally, females prefer saving using savings clubs or a person outside the family, while males prefer saving in financial institutions and mobile money accounts. Specifically, 20.3 percent of female adults saved money using savings clubs or with someone outside their family in 2021. compared to only 4.2 percent and 12.5 percent of adult females who saved in financial institutions and mobile money accounts, respectively. Therefore, this suggests the existence of some obstacles for females to participate in the formal financial sector.

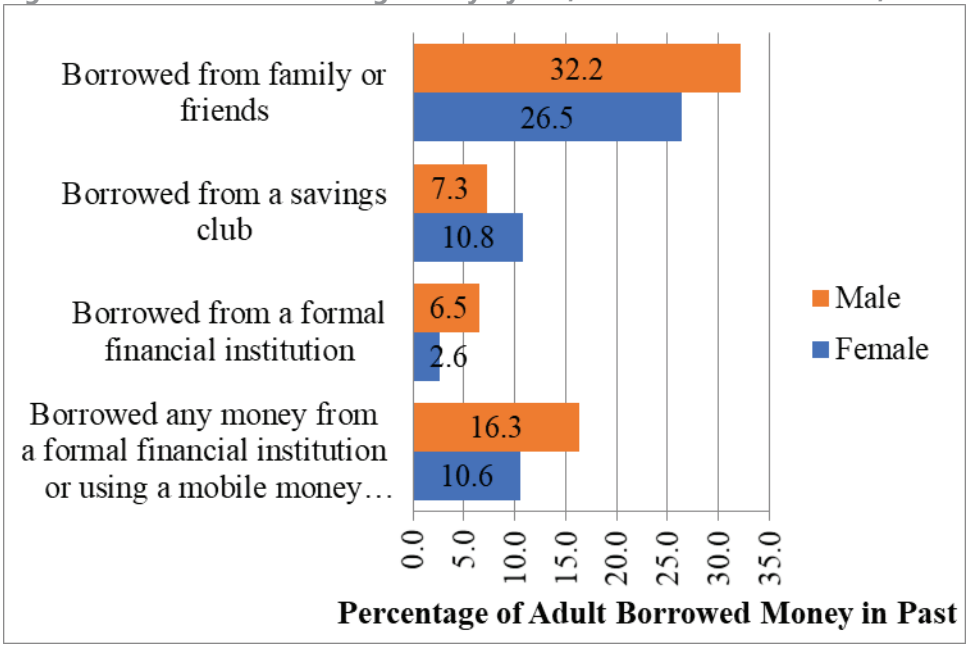
Concerning borrowing, Figure 6 shows that individuals in Tanzania tend to borrow more from informal sources such as family and friends. Females are less likely to borrow from financial institutions than males. On average, in 2021, only 2.6 percent of females borrowed from financial institutions, but 26.5 percent borrowed from family or friends. However, female adults tend to exceed male adults in borrowing from saving clubs, as 10.8 percent borrowed from saving clubs compared to 7.3 percent of adult males

Figure 5: Means of saving money by sex, % of Adults in Tanzania, 2021



***Source*:** World Bank FINDEX Database 2021

Figure 6: Sources of borrowing money by sex, % of Adults in Tanzania, 2021



***Source*:** World Bank FINDEX Database 2021

4. DATA AND EMPIRICAL STRATEGY

4.1 Data

The main data used was from the World Bank Global Findex of 2021. The source provides rich information on access and use of financial services. It contains updated indicators on access to and use of formal and informal financial services and digital payments, and offers insights into the behaviour that enables financial resilience. The data also identify gaps in women's and poor adults' access to and usage of financial services. Table 1 provides the variables used in the analysis and their measurement.

Table 1: Variables and their measurement

Variable Name	Measurement
Access to financial services	Three variables measure it: account with a formal financial institution, debit/credit card ownership and mobile money account. The variables used are categorical variables that take one if the individual holds an account and zero otherwise.
Usage of financial services	It is measured by three variables as well, namely savings (if the individual saved or put money aside in the past 12 months using an account at a financial institution), borrowing (if the individual borrowed money in the past 12 months using an account at a financial institution) and the use of mobile money services (if an individual used a mobile money account two or more times a month). The variables used are categorical variables that take one if an individual uses a financial service and zero otherwise.
Male	Dummy that takes one if the respondent is a male and zero otherwise.
Education	Dummy variable takes one if a respondent completed secondary education and above and zero otherwise.
Age	Age of the respondent in years
Income	Income (poorest 20%) -Income in the first income quintile=1; Otherwise=0
	Income (second 20%)-Income in the second income quintile=1; Otherwise=0
	Income (middle 20%)-Income in the middle-income quintile=1; Otherwise=0
	Income (fourth 20%)-Income in the fourth income quintile=1; Otherwise=0
	Income (richest 20%)-Income in the richest income quintile=1; Otherwise=0
Employment	Dummy takes one if the respondent is in the workforce and zero otherwise.

Table 1: Continue

Variable Name	Measurement
Urban	Dummy that takes one if the respondent is located in urban areas, zero otherwise.
Legal barriers	Dummy variable takes one if the individual does not have access to or does not use financial services because of a lack of required documents and zero otherwise.
Distance	Dummy variable takes one if the individual does not have access to or does not use financial services because of the distance to the nearest bank, post office, ATM, point of sale or Mobile money agent, zero otherwise.
Mobile phone ownership	Dummy variable takes one if the individual owns a mobile phone, and zero otherwise.

4.2 Empirical Strategies

Logistic regression and decomposition analysis were employed to examine the gender gap in financial inclusion in Tanzania. The logistic regression model allowed us to establish the relationship between a binary outcome variable, which refers to whether one is financially included or not, and a set of predictor variables modelled on a logit-transformed probability. Thereafter, the study used the Fairlie nonlinear decomposition technique (Fairlie, 2006) to analyse the components of the gender gap in financial inclusion in Tanzania. Fairlie decomposition technique is an extension of Blinder-Oaxaca's 1973 decomposition for logistic regression, which allows causes of gender differences to be examined in a binary outcome. It computes the nonlinear decomposition of binary outcome differentials proposed by Fairlie (1999, 2003).

4.2.1 Logistic regression

Following the approaches used by Were et al. (2021), a logistic regression model was used to establish the relationship between a binary outcome variable, which in this case refers to whether one is financially included or not, and a set of predictor variables modelled on a logit-transformed probability. The choice of the binary logistic regression model was based on the model's suitability for analysing and understanding a dichotomous response variable. The model was applied to analyse the determinants of financial inclusion in Tanzania. The following function describes the logistic regression model:

$$P = E\left(Y = {}^{1}\!/_{X}\right) = \frac{1}{1+e^{z}} = \frac{e^{z}}{1+e^{z}} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots . \dots \dots . (1)$$

Where P (Financial Inclusion = 1/X) represents the likelihood that a person has a bank account, savings, and borrowing with financial institutions, given the vector of the observable qualities. While z is expressed as:

$$z_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \cdots \dots \dots . + \beta_p X_{ip} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots . \dots \dots \dots . . (2)$$

X_{i1} is the jth predictor for the ith person that includes age, sex, income, employment status, locality, level of education attained, distance to nearest financial services, having legal requirement documents and owning a mobile phone, bj is the jth coefficient, and p is the number of predictors.

4.2.2 Decomposition analysis

The standard technique used is the Blinder-Oaxaca decomposition technique developed by Blinder (1973) and Oaxaca (1973). The method allows the decomposition of outcome variables between two groups into a part explained by differences in observed characteristics and an amount attributable to differences in the estimated coefficients (Bauer et al., 2008).

Moreover, it helps identify and quantify the separate contributions of group differences in measurable characteristics. The technique is easy to apply and only requires coefficient estimates from linear regressions for the outcome of interest and sample means of the independent variables used in the regressions. However, this method mainly applies in the context of linear regression models. It may not provide consistent estimates of the outcome variable and composition effect when the conditional mean is a nonlinear function (Barsky et al., 2002). As a result, several extensions of the Blinder–Oaxaca decomposition to nonlinear regression models were developed by Bauer and Sinning (2008). However, the Blinder–Oaxaca decomposition method can be applied to models with discrete and limited dependent variables using the "nldecompose" command; the command does not separate the contribution of single variables.

Therefore, this study adopted the Fairlie nonlinear decomposition technique (Fairlie, 2006) to analyse the gender gap in financial inclusion in Tanzania. Fairlie decomposition technique is an extension of Blinder-Oaxaca decomposition, mainly used if the outcome is binary and the coefficients are from a Logit or Probit model. The method was also used by Ghosh and Chaudhury (2019) and Hundie and Tulu (2021) in India and Ethiopia, respectively. This decomposition technique is used to quantify the contributions to differences in predicting an outcome of interest between two groups in multivariate models (Powers et al., 2011). It works by decomposing the difference in proportions based on either the probit or logit model (Powers et al., 2011). The decomposition analysis is carried out by calculating the difference between the predicted probability for one group (say female) using the other group's (say male) regression coefficients and

the predicted probability for that group (female) using its regression coefficients. The Fairlie decomposition technique can be specified as:

$$\bar{Y}^M - \bar{Y}^F = \left[\sum_{i=1}^{N^M} \frac{F(X_i{}^M \hat{\beta}^M)}{N^M} - \sum_{i=1}^{N^F} \frac{F(X_i{}^F \hat{\beta}^M)}{N^F}\right] + \left[\sum_{i=1}^{N^F} \frac{F(X_i{}^F \hat{\beta}^M)}{N^F} - \sum_{i=1}^{N^F} \frac{F(X_i{}^F \hat{\beta}^F)}{N^F}\right] \dots\dots\dots\dots (3)$$

Where superscript F represents the cumulative distribution function from the logistic distribution, where N^j is the sample size for sex j (M=male, F=Female). $\bar{Y}^j$ is the mean probability of outcome variable for sex j, $X_i{}^j$ is the vector of independent variables for sex case j, and $\beta_i{}^j$ is the vector of coefficient estimates including a constant term. $\bar{Y}$ does not necessarily equal $F(\bar{X}\bar{\beta})$. The first term in Equation (3) stands for the explained part of the male-female differences between two groups, which is caused by the disparity in the distribution of independent variables, and the second term represents the unexplained part due to unmeasurable or unobserved endowments between the two groups (Hundie & Tulu, 2021).

The detailed decomposition involves a natural one-to-one matching of cases between the two groups to identify the contribution of independent variables. The subsample was drawn from the majority group (male) and matched the minority group (female) based on the ranking of two group financial inclusion differences. The contribution of variable X_1 to male-female differences in financial inclusion is estimated as follows:

$$X_1 = \frac{1}{N^F}\sum_{i=1}^{N^F} F(\alpha^* + X_{1i}{}^M\beta_1{}^* + X_{2i}{}^M\beta_2{}^*) - F\left(\alpha^* + X_{1i}{}^F\beta_1{}^* + X_{2i}{}^M\beta_2{}^*\right) \dots\dots\dots\dots\dots (4)$$

Similarly, the contribution of X_2 can be expressed as:

$$X_2 = \frac{1}{N^F}\sum_{i=1}^{N^F} F(\alpha^* + X_{1i}{}^M\beta_1{}^* + X_{2i}{}^M\beta_2{}^*) - F\left(\alpha^* + X_{1i}{}^M\beta_1{}^* + X_{2i}{}^F\beta_2{}^*\right) \dots\dots\dots\dots\dots (5)$$

Where $\beta*$ stands for the regression coefficient from the logit model for the overall sample. It should be noted that the results are sensitive to the order of independent variables in the decomposition of nonlinear model. The amount of the contributions from individual variables would equal the cumulative contribution from all of the variables measured for the full sample, which is a useful property of this technique (Hundie and Tulu, 2021). The approach tells us how much each independent (explanatory) variable contributes to the overall difference. The change in the average predicted probability from replacing the female distribution of a specific variable with the male distribution, while holding the distributions of the other variables constant, is the contribution of each explanatory variable to the gap.

Following Fairlie (2005), independent variables were randomly ordered in the decomposition of the nonlinear model. Due to differences in size between the two groups, the study repeated the steps 1000 times to obtain the average value of decomposition results, representing the contribution of each independent variable. We draw a random sub-sample of females with or without replacement equal to the size of the full male sample and match the sample by their respective rankings in predicted probabilities because the number of females and males is not equal. We draw 1,000 different subsamples because the decomposition estimates are sensitive to the sub-sample chosen, and our results are based on average values obtained from the decomposition method carried out over these sub-samples.

More specifically, the contribution of each independent variable to the male-female differences in financial inclusion is divided into two components using a two-fold Blinder-Oaxaca decomposition approach:

$$\bar{Y}^M - \bar{Y}^F = (\bar{X}^M - \bar{X}^F)\beta^* + \bar{X}^M(\beta^M - \beta^*) + \bar{X}^F(\beta^* - \beta^F) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (6)$$

Where $\beta*$ denotes the regression coefficient from the multiple linear regression for the overall sample, $\bar{X}$ represents the corresponding covariate means of the independent variables. The first term indicates the explained part, representing the contribution attributable to group disparity in the distribution of independent variables, and the second term indicates the unexplained part, representing the contribution attributable to group disparity in the regression coefficient.

5. RESULTS AND DISCUSSIONS

5.1 Descriptive Statistics

Table 2 shows the summary statistics of variables of interest for the analysis; for instance, respondents have a mean of 26 % having accounts in financial institutions. The average of the sample of the population with credit /debit cards is only 16 percent, while those with an account in mobile money is 50 percent. It also shows that the average number of people using mobile money is 33 percent. On average, 31% of the sample population in our analysis reported to have schooled beyond the secondary school education level. This leaves a whopping fraction of about 69% of the sampled population with an education level below secondary education. Further, the mean age of the sampled population was about 36 years. The variable had a standard deviation of 15.66 and varied within the intervals of 15 and 99 years around the mean value. On average, 38 percent of the sampled population resided in urban areas. Likewise, about 76% of the sampled population is in the labour force. Approximately, 38 percent of the sample comprised of the male population.

Table 2 Selective Descriptive Statistics of the Variables

Variable	Observation	Mean	Std. Dev.	Min	Max
Account in financial institutions	1,001	0.26	0.44	0	1
Having a credit/debit card	1,001	0.16	0.36	0	1
Account in mobile money	1,001	0.50	0.50	0	1
Saving	1,001	0.07	0.26	0	1
Borrowing	1,001	0.03	0.19	0	3
Usage of mobile money	1,001	0.33	0.47	0	1
Age	1,001	36.24	15.66	15	99
Education	1,001	0.31	0.46	0	1
Male	1,001	0.38	0.48	0	1
Legal documents in a financial institution	1,001	0.35	0.48	0	1
Distance to financial services	1,001	0.23	0.42	0	1
Distance to mobile money services	1,001	0.08	0.27	0	1
Employment	1,001	0.76	0.43	0	1
Urban	1,001	0.38	0.48	0	1
Income Categories	1,001	3.19	1.43	1	5

Source: Authors' Computation

5.2 Logistic Regression Results

Tables 3 and 4 present the estimated results from the logistic regression for Tanzania's socio-economic determinants of financial inclusion. Specifically, the results show a positive relationship between age and all six financial inclusion measures. This means financial inclusion increases with age until it reaches a certain age, beyond which it starts

to decrease. The negative coefficient of the age squared confirms this. The result is consistent with the results reported by Were et al. (2021) and Bekele (2023). We also find that the coefficient of males is positive and statistically significant in having accounts in financial institutions, having a credit/debit card and saving in financial institutions. That is, males are more likely to be financially included than females. They dominate females in access to and usage of financial services.

The study also established that education is a significant factor in explaining financial inclusion in Tanzania. More specifically, individuals who completed secondary education and above are more likely to be financially included than others. Peña et al. (2014) argue that education measures knowledge, skillsets, and capacity to make decisions in formal financial markets, hence the positive relationship between financial inclusion and education. The result is consistent with the findings of other scholars, such as Were et al. (2021) and Bekele (2023). Concerning employment, we find that individuals in the workforce have a higher chance of being financially included than those out of the workforce. The result arises because being in the workforce entails receiving income, and in most cases, the payment is received via financial institutions. Moreover, we find that individuals in urban areas are more likely to be financially included than those in rural areas.

The study shows a positive relationship between financial inclusion and income. As people's income increases, financial inclusion also increases. Wealthier people are more likely to own accounts in Tanzania, either financial institution accounts or mobile money accounts, than poor people. This result makes sense because most people who earn an income get paid through a bank account or a mobile money platform. The study also shows a negative relationship between financial inclusion and legal documentation. This finding is consistent with the results reported by Abel et al. (2018). Access to banking products entails completing several forms and producing several documents to the financial institution's satisfaction. Therefore, most people in developing countries need these documents that constrain them to have access to and use financial services.

Table 3: The Logit model results for access to financial services

Variables	Account-FIN	Credit/debit card	Account-mobile
Age	0.053**	0.063*	0.032
	(0.026)	(0.034)	(0.026)
Age2	-0.001*	-0.001	-0.000
	(0.000)	(0.000)	(0.000)
Male	0.865***	0.947***	0.040
	(0.171)	(0.210)	(0.164)
Education	0.760***	0.843***	0.387**
	(0.197)	(0.255)	(0.186)
Employment	0.604**	0.826**	0.713***
	(0.246)	(0.339)	(0.190)
Urban	-0.005	-0.171	0.310*
	(0.173)	(0.213)	(0.162)
Base category (Income Poorest 20%)			
Income-second	0.078	0.214	0.424
	(0.340)	(0.462)	(0.284)
Income-middle	0.198	0.431	0.525**
	(0.323)	(0.456)	(0.263)
Income-fourth	0.537*	0.542	0.632**
	(0.308)	(0.430)	(0.271)
Income-richest	1.233***	1.441***	0.935***
	(0.301)	(0.422)	(0.276)
Documentation-FI	-1.584***		
	(0.249)		
Distance-FI	-1.461***		
	(0.320)		
Own mobile phone			1.242***
			(0.202)
Documentation-mobile			-3.454***
			(0.473)
Distance-mobile			-2.798***
			(0.793)
Constant	-3.199***	-4.585***	-2.359***
	(0.627)	(0.886)	(0.577)
Observations	1,001	566	1,001
Pseudo R2	0.2421	0.1584	0.2916
Wald chi2(12)	170.78***	88.12***	145.57***
Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1			

Source: Authors' Computation

Table 4: The Logit model results for usage of financial services

Variables	Savings	Borrowing	Mobile money usage
Age	0.028	0.135	0.037
	(0.044)	(0.090)	(0.026)
Age2	-0.000	-0.001	-0.001**
	(0.000)	(0.001)	(0.000)
Male	0.696**	0.437	0.102
	(0.285)	(0.378)	(0.165)
Education	1.420***	1.038**	0.702***
	(0.356)	(0.479)	(0.182)
Employment	2.538**	1.403	0.358*
	(1.018)	(1.052)	(0.213)
Urban	0.199	-0.031	0.461***
	(0.287)	(0.373)	(0.162)
Base category (Income Poorest 20%)			
Income-second	0.105	14.497***	0.355
	(0.740)	(0.898)	(0.327)
Income-middle	-0.135	14.922***	0.748**
	(0.735)	(0.696)	(0.298)
Income-fourth	0.349	14.772***	0.990***
	(0.648)	(0.639)	(0.296)
Income-richest	1.408**	15.729***	1.194***
	(0.645)	(0.504)	(0.296)
Own mobile phone			1.343***
			(0.252)
Documentation-FI	-1.766***	-1.348*	
	(0.529)	(0.786)	
Distance-FI	-2.085**	-1.289	
	(1.031)	(1.069)	
Constant	-6.816***	-22.991***	-3.466***
	(1.402)	(2.336)	(0.607)
Observations	1,001	1,001	789
Pseudo R2	0.32	0.21	0.14
Wald chi2(12)	119.25***	1113.41***	115.73***
Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1			

Source: Authors' Computation.

The study results also show that distance has a significant negative impact on financial inclusion. The result means that the greater the distance away from centres that provide financial products, the less people will be financially included. Distance diminishes the chances for people to access financial products. Financial products should be easily accessible to people for them to derive any utility. This implies that access to financial services is a function of the distance between the service provider and the consumer of

the financial product. Moreover, owning a mobile phone increases financial inclusion in Tanzania. This result is consistent with the findings of Bongomin et al. (2018). In addition, individuals in higher income groups, as opposed to those in the poorest category, are more likely to be financially included.

5.3 Decomposition Analysis Results

This section presents the overall gender disparity in the selected financial inclusion indicators. Table 5 shows the results of the decomposition of the financial inclusion gender gap, including the contributions of the variables used based on Fairlie's nonlinear decomposition. As reported in Table 5, the gender gap in account ownership in financial institutions is significant, and the rate is 0.18. This positive gap implies that males are 18 percent more likely to have accounts in financial institutions than their female counterparts. Having found evidence of a gender gap, we analyzed the extent to which observable characteristics explain these results. The outcome shows that the gender differences in all the socioeconomic variables (such as age, income, education, and employment status) account for 33.3 percent of the total gap. However, the gap is attributed mainly to differences in educational attainment.

Moreover, the decomposition of credit/debit card ownership shows that males have a 0.25 likelihood of having an account in mobile money compared to 0.10 for females. Thus, displaying a gender gap of 0.14 (14%). The socioeconomic variables included in the model explain roughly 42.9 percent of the total gap. Again, the gender gap is largely and significantly explained by variation in educational attainment.

The decomposition of account ownership in mobile money shows that males have a 0.56 likelihood of having an account in mobile money, compared to 0.46 for females thus displaying a gender gap of 0.09 (9%). The socioeconomic variables included in the model explain roughly 100 percent of the total gap. Of the explained gap, being in employment 40% and owning a mobile phone contribute 37.8% of the gap. These findings are consistent with those of Aterido et al. (2013) and Fanta and Mutsonziwa (2016), who show that women are generally discriminated against in terms of participation in formal employment.

Table 5: Fairlie non-linear decomposition of gender gap in access to financial services

Variables	Account-FIN	Credit/debit card	Account-MOB
Age	0.019	0.032*	0.015
	(0.020)	(0.017)	(0.012)
Age2	-0.014	-0.020	-0.010
	(0.018)	(0.016)	(0.011)
Education	0.015***	0.022***	0.006
	(0.005)	(0.008)	(0.005)
Employment	0.010	0.010	0.027**
	(0.011)	(0.016)	(0.014)
Urban	0.001	0.004	0.001
	(0.003)	(0.003)	(0.002)
Income-second	0.000	-0.002	-0.003
	(0.002)	(0.005)	(0.003)
Income-middle	0.001	0.001	0.001
	(0.003)	(0.004)	(0.003)
Income-fourth	-0.000	-0.001	-0.001
	(0.002)	(0.003)	(0.004)
Income-richest	0.012*	0.016	0.017**
	(0.007)	(0.010)	(0.007)
Documentation-FI	0.009**		
	(0.004)		
Distance-FI	0.002		
	(0.002)		
Own mobile phone			0.024***
			(0.007)
Documentation-mobile			0.018***
			(0.004)
Group(male)	0.38	0.25	0.56
Group(female)	0.19	0.1	0.46
Difference/gap	0.18	0.14	0.09
Explained gap	0.06 (33.3%)	0.06 (42.9%)	0.09 (100%)
Observations	1,001	1,001	1,001
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1			

Source: Authors' Computation

Analysis of the gender gap in the usage of financial services is presented in Table 6. The decomposition of savings at a formal financial institution shows that males are more likely to save at a formal institution (0.12) than females (0.05).

Table 6: Fairlie non-linear decomposition of gender gap in usage of financial services

Variables	Saving	Borrowing	Mobile money usage
Age	0.018	0.014	0.011
	(0.063)	(0.060)	(0.025)
Age2	-0.016	-0.016	-0.012
	(0.060)	(0.058)	(0.023)
Education	0.017**	0.007	0.012**
	(0.008)	(0.007)	(0.005)
Employment	0.000	0.000	0.007
	(0.000)	(0.000)	(0.014)
Urban	-0.000	-0.000	-0.003
	(0.002)	(0.002)	(0.003)
Income-second	-0.000	-0.016	-0.008
	(0.003)	(0.011)	(0.006)
Income-middle	0.001	-0.010	-0.000
	(0.004)	(0.012)	(0.003)
Income-fourth	-0.002	-0.009	-0.001
	(0.006)	(0.012)	(0.005)
Income-richest	0.011	0.043***	0.030***
	(0.011)	(0.010)	(0.008)
Own mobile phone			0.021***
			(0.007)
Documentation-FI	0.000	0.001	
	(0.005)	(0.003)	
Distance-FI	0.001	0.000	
	(0.003)	(0.002)	
Group(male)	0.12	0.048	0.38
Group(female)	0.05	0.021	0.3
Difference/gap	0.073	0.027	0.08
Explained gap	0.029 (39.7%)	0.015 (55.5%)	0.06 (75%)
Observations	1,001	1,001	1,001
Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1			

***Source*:** Own Computations

However, as shown in Table 6, 39.7 percent of the gap is explained by socioeconomic variables included in the model. Of the defined gap, education is the only significant factor. Concerning the decomposition of borrowing, males are more likely to borrow from a formal financial institution (0.048) than females (0.021). Thus, 55.5 percent of the gap is explained by the variables included in the analysis. The only variable explaining the significant gap is the richest income. Similarly, the decomposition results of mobile

money usage show that males are more likely to use mobile money services (0.38) than females (0.30). Hence, the socioeconomic variables in the model explain a gap of 0.08 (8%) and 75% of the gap. The explained gap is contributed mainly by income, education and ownership of mobile phones.

6. CONCLUSION AND RECOMMENDATIONS

This study investigated the factors contributing to gender disparities in financial inclusion in Tanzania by utilizing the 2021 Findex data from the World Bank. The study employed the Fairlie (1999) decomposition method to analyse the gender gap in six financial inclusion indicators. The findings confirm a disparity between men and women in all financial inclusion indicators used in this study, with men having an advantage over women. In addition, the findings revealed that the gender gap in access to and use of financial services in Tanzania is mostly due to differences in education, income, access to mobile phones, and documentation ownership.

It is recommended that all development stakeholders, including the Government, should take comprehensive and targeted measures to promote women's financial inclusion and effectively reduce the gender gap. Specifically, they should develop and implement a multifaceted strategy that encompasses policies for improving women's educational levels. Further, there is need to focus on promoting financial literacy among women by incorporating financial education into basic education curricula and providing specialized training programmes. Furthermore, financial institutions must proactively work to remove barriers to financial access by fostering innovation and flexibility in financial regulations and procedures. This can involve the introduction of custom-tailored financial products and services that cater to the specific needs of women, including low-cost banking products and simplified account management processes.

It is imperative that efforts to address barriers facing unbanked women are prioritized, with a focus on providing easy-to-use, low-balance accounts and promoting digital financial services to facilitate their transition towards more formal financial inclusion. In addition to addressing financial access, it is essential to recognize the impact of income levels on the gender gap in financial inclusion. Therefore, the government and other stakeholders should consider implementing income-augmenting measures, such as targeted employment programmes, entrepreneurship support, and economic empowerment initiatives tailored to women. By improving women's income levels, they can gain better access to digital financial service access, thereby contributing to enhanced financial inclusion.

Likewise, collaboration between public and the private sector is crucial in expanding the availability of affordable mobile handsets and internet accessibility. The government should work with private enterprises to create an enabling environment for the provision of low-cost handsets and improved internet connectivity, potentially through the development of incentives and partnerships aimed at increasing accessibility for women in both urban and rural areas. By diligently implementing these multifaceted

strategies, Tanzania can make substantial progress in bridging the gender gap in financial inclusion, thereby fostering greater economic empowerment for women.

REFERENCES

Ahmed, M. S., & Jianguo, W. (2014). Financial Inclusion and Challenges in Tanzania. Research Journal of Finance and Accounting, 5(21), 1-8.

Ajide, F. M. (2020). Financial Inclusion in Africa: Does It Promote Entrepreneurship? Journal of Financial Economic Policy, 12(4), 687-706.

Akileng, G., Lawino, G. M., & Nzibonera, E. (2018). Evaluation of Determinants of Financial Inclusion in Uganda. Journal of Applied Finance and Banking, 8(4), 47-66.

Anderson, J. (2010). M-Banking in Developing Markets: Competitive and Regulatory Implications. Info, 12(1), 18-25.

Aterido, R., Beck, T., & Iacovone, L. (2013). Access to Finance in Sub-Saharan Africa: Is There A Gender Gap? *World Development*, *47*, 102-120.

Atkinson, A & Messy, F (2013). Promoting Financial Inclusion through Financial Education: OECD/INFE Evidence, Policies and Practice. OECD Working Papers on Finance Insurance and Private Pensions No. 34.

Baidoo, S. T., & Akoto, L. (2019). Does Trust in Financial Institutions Drive Formal Saving? Empirical Evidence from Ghana. *International Social Science Journal*, 69 (231), 63–78.

Balasubramanian, S. A., Kuppusamy, T., & Natarajan, T. (2018). Financial Inclusion and Land Ownership Status of Women. *International Journal of Development Issues*.

Bayero, M. A (2015). Exploring the Link Between Financial Inclusion and Women Entrepreneurship. *Lapai Journal of Management Sciences (LAJOMAS),* 3(6), 247-259.

BELLO, S. (2022). The Role of Waqf in Enhancing the Financial Inclusion of Women Entrepreneurs in Developing Countries. Journal of Islamic Business and Management, 12(1).

Bennett, J. (2010). Informal Firms in Developing Countries: Entrepreneurial Stepping Stone or Consolation Prize? Small Business Economics, 34, 53-63.

Dawood, T. C., Pratama, H., Masbar, R., & Effendi, R.(2019). Does Financial Inclusion Alleviate Household Poverty? Empirical Evidence from Indonesia. *Economics & Sociology*, 12(2), 235–252.

Demirgüç-Kunt, A., & Klapper, L. F. (2012). Measuring Financial Inclusion: The Global Findex Database. *World Bank Policy Research Working Paper*, (6025).

Demirgüç-Kunt, A., Klapper, L. F., Singer, D., & Van Oudheusden, P. (2015). The Global Findex Database 2014: Measuring Financial Inclusion Around the World. *World Bank Policy Research Working Paper*, (7255).

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19. World Bank Publications.

Dittus, Peter and Klein, Michael U., (2011). On Harnessing the Potential of Financial Inclusion, BIS Working Paper No. 347.

Ellis, A. et al (2007). Gender and Economic Development in Tanzania: Creating Opportunities for Women. World Bank Group.

Elouardighi, I, and Kenza O. (2023). Can Digital Financial Inclusion Promote Women's Labor Force Participation? Micro-level Evidence from Africa. *International Journal of Financial Studies* 11: 87.

Fairlie, R. W. (1999). The Absence of the African-American Owned Business: An Analysis of the Dynamics of Self-Employment. Journal of Labor Economics, 17(1), 80-108.

Fairlie, R. W. (2006). An Extension of the Blinder-Oaxaca Decomposition Technique to Logit and Probit Models. In IZA Discussion Paper (Issue 1917).

Fanta, A. B., & Mutsonziwa, K. (2016). Gender and Financial Inclusion: Analysis of Financial Inclusion of Women in the SADC Region. Policy Research Paper, 1(1).

Ghosh, C., & Chaudhury, R. H. (2019). Gender Gap in Case of Financial Inclusion: An Empirical Analysis in Indian. Economics Bulletin, 39(4), 2615–2630.

Ghosh, S., & Vinod, D. (2017). What Constrains Financial Inclusion for Women? Evidence from Indian Microdata. *World Development*, *92*, 60-81.

GSMA (2019). 'Connected Women: The Mobile Gender Gap Report 2019'. London: GSMA.

Hendriks, S. (2019). The Role of Financial Inclusion in Driving Women's Economic Empowerment. Development in Practice, 29(8), 1029-1038.

Hundie, S. K., & Tulu, D. T. (2021). Financial Inclusion Gender Gap in Ethiopia: Evidence from Decomposition Analysis. Research square.

Hundie, S.K & Tulu, D.T (2023) Determinants of Financial Inclusion Gender Gap in Ethiopia: Evidence from Decomposition Analysis. Cogent Business & Management, 10(2), 2238124.

Idris, I (2018). Barriers to Women's Economic Inclusion in Tanzania. GSDRC, University of Birmingham.

Irwin, D. and Scott, J. (2007) 'Barriers Faced by Small and Medium-Sized Enterprises in Raising Finance from Banks'. Paper presented in the Proceeding of the ICSB 2007 World Conference. At the Crossroads of East and West: New Opportunities for Entrepreneurship and Small Business. June12–15, 2007, Turku, Finland.

Johnen, C., & Mußhoff, O. (2022). Digital Credit and the Gender Gap in Financial Inclusion: Empirical Evidence from Kenya. *Journal of International Development*. vol. 35, issue 2, 272-295.

Kazemikhasragh, A., Cicchiello, A. F., Monferrá, S., & Girón, A. (2022). Gender Inequality in Financial Inclusion: An Exploratory Analysis of the Middle East and North Africa. *Journal of Economic Issues*, *56*(3), 770-781.

Kihamba, J. S. (2020). E-Financing and the Quest for Financial Inclusion in Tanzania. Tanzanian Journal of Population Studies and Development, 26(1), 80–96.

Kikula, J. S. (2018). Challenges facing Tanzanian Women Entrepreneurs while Managing Entrepreneurial Ventures: A Case of Mbeya City. Huria: Journal of the Open University of Tanzania, 25(1), 182-208.

Klapper, L, Millller, M & Hess, J (2019) Leveraging Digital Financial Solutions to Promotes Formal Business Participation. International Bank for Reconstruction and Development, The World Bank.

Koomson, I., Villano, R. A., & Hadley, D. (2020). Effect of Financial Inclusion on Poverty and Vulnerability to Poverty: Evidence Using a Multidimensional Measure of Financial Inclusion. *Social Indicators Research*, *149*(1), 613–639.

Lotto, J (2018). Examination of the Status of Financial Inclusion and Its Determinants in Tanzania. *Sustainability*, 10, 2873.

Maina, J. (2018). *Mobile Money Policy and Regulatory Handbook.* London: GSMA.

Manta A (2019) Financial Inclusion and Gender Barriers for Rural Women. *International Journal of Management* 10(5):61–72.

Mashenene, R. G., Macha, J. G. L., & Donge, L. (2014). Socio-Cultural Determinants of Entrepreneurial Capabilities among the Chagga and Sukuma Small and Medium Enterprises in Tanzania. *Journal of Economics and Sustainable Development*, 5(17), 90-103.

Mohammed, Jabir Ibrahim, Lord Mensah, and Agyapomaa Gyeke-Dako (2017). Financial Inclusion and Poverty Reduction in Sub-Saharan Africa. *African Finance Journal* 19: 1–22.

Mori, N (2014). *Women's Entrepreneurship Development in Tanzania: Insights and Recommendations*. International Labour Office – Geneva: ILO.

Ndanshau, M. O., & Njau, F. E. (2021). Empirical Investigation into Demand-Side Determinants of Financial Inclusion in Tanzania. African Journal of Economic Review, 9(1), 172-190.

Ndunguru, P. C. (2006). Entrepreneurial Motives and Culture. A Case Study of Southeast and Southern Highlands of Tanzania". Unpublished PhD Thesis, University of Dar Es Salaam, Tanzania.

Nsiah, A. Y., Yusif, H., Tweneboah, G., Agyei, K., & Baidoo, S. T. (2021). The Effect of Financial Inclusion on Poverty Reduction in Sub-Sahara Africa: Does Threshold Matter? Cogent Social Sciences, 7(1), 1903138.

Nziku, D. M., & Henry, C. (2021). Policies for Supporting Women Entrepreneurs in Developing Countries: The Case of Tanzania. Journal of Entrepreneurship and Public Policy, 10(1), 38-58.

Omar, A & Inaba, K (2020). Does Financial Inclusion Reduce Poverty and Income Inequality in Developing Countries? A Panel Data Analysis. *Journal of Economic Structures*, *9*(1), 37.

Pena, Ximena, Carmen Hoyo, and David Tuesta. 2014. Determinants of Financial Inclusion in Mexico Based on the 2012 National Financial Inclusion Survey (ENIF). BBVA Research Working Paper 14/15.

Perina, C and Hyland, M (2023). Gendered Laws and Women's Financial Inclusion. Policy Research Working Paper 10282. World Bank Group. Development Economics Global Indicators Group.

Roy, P and Patro, B (2022). Financial Inclusion of Women and Gender Gap in Access to Finance: A Systematic Literature Review. *Vision,* 26(3), 282–299.

Sakyi, D., Onyinah, P. O., Baidoo, S. T., & Ayesu, E. K. (2021). Empirical Determinants of Saving Habits Among Commercial Drivers in Ghana. *Journal of African Business*, 22(1), 106-1251–20.

Saluja, O.B, Singh, P & Kumar, H (2023). Barriers and Interventions on the Way to Empower Women Through Financial Inclusion: A 2-Decade Systematic Review (2000–2020). *Humanities and Social Sciences Communications* 10:148.

Sanderson, A Mutandwa, L & Le Roux, P (2018). A Review of Determinants of Financial Inclusion. *International Journal of Economics and Financial Issue,* 8(3), 1-8.

Siddik, M. N. A. (2017). Does Financial Inclusion Promote Women Empowerment? Evidence from Bangladesh. Applied Economics and Finance, 4(4), 169-177.

Simba, A., Tajeddin, M., Dana, L. P., & Ribeiro Soriano, D. E. (2024). Deconstructing Involuntary Financial Exclusion: A Focus on African SMEs. Small Business Economics, 62(1), 285-305.

Singh, B., & Singh, M. (2023). Financial Literacy and Its Determinants Among the Schedule Tribes: Evidence from India. International Journal of Social Economics, 50(12), 1804-1817.

Ulwodi, D. W., & Muriu, P. W. (2017). Barriers to Financial Inclusion in Sub-Saharan Africa. *Journal of Economics and Sustainable Development*, *8*(14).

Wandeda, D.O, Poulard, D & Kipkorir, K.M (2023). Digital Financial Inclusion and Financial Health in Kenya: Gendered Analysis. African Journal of Economic Review, Volume 11 (3)

Were, M., Odongo, M., & Israel, C. (2021). *Gender Disparities in Financial Inclusion in Tanzania* (No. 2021/97). WIDER Working Paper.

World Bank. (2018). *Financial Inclusion is A Key Enabler to Reducing Poverty and Boosting Prosperity*. Retrieved from The World Bank.

Yeyouomo, A.K, Asongu, S.A & Agymang-Mintah, P (2022). Fintechs and the Financial Inclusion Gender Gap in Sub-Saharan African Countries. European Xtramile Centre of African Studies (EXCAS), Working Paper, WP/22/083.

Zawaira, T, Clarance, M, Chisadza, C & Gupta, R, (2021). Financial Inclusion and Gender Inequality in Sub-Saharan Africa. University of Pretoria Department of Economics Working Paper Series.

REPOA Main Office

157 Migombani/REPOA streets, Regent Estate, P.O. Box 33223,
Dar es Salaam, Tanzania.
Tel: +255 (22) 270 0083 Cell: +255 (0)784 555 655
Website: https://www.repoa.or.tz
Email: repoa@repoa.or.tz

Branch Office

2nd Floor Kilimo Kwanza Building
41105 Makole East, Kisasa,
Dodoma, Tanzania