1. Introduction

This study aims to explain how personal characteristics affect financial inclusion. Understanding what drives financial inclusion in Zambia is critical, as it plays a key role in driving economic activity and growth (Allen et al., 2016). Furthermore, given the many uncertainties in the economic environment, it is very important to have a proper understanding of the factors that have contributed to significant improvement in financial inclusion indicators over the years.

Financial inclusion efforts in Zambia have focused on designing policies and strategies to address limited access and uptake of financial services and products in rural segments of the country (Chimfwembe, 2022). Results from the FinScope Zambia Report (2015) indicated that financial inclusion increased to 69.4% from 59.3% in 2015. Consistent with this, formal financial inclusion rose to 61.3% (2015, 38.2%). This growth was mainly attributed to increased uptake of mobile money services to 58.5% from 14.0% in 2015. On the other hand, informal financial inclusion declined to 32.3% from 37.9% in 2015 as more adults were using formal financial services.

World Bank Group (2013) in the Global financial development report forecasts that by 2020, adults, who currently aren't part of the formal financial system, will have access to a transaction account to store money, send and receive payments as the basic building block to manage their financial lives. It is thus the expectation that financial inclusion should be enhanced throughout the world.

It is important to understand the personal characteristics that influence financial inclusion in addition to the non-personal characteristics to give relevant policy directives on what the government needs to do to attain wholesome financial inclusion throughout the world which is critical in fostering wholesome development worldwide.

Globally, Beck (2016) argues that expanding access to payment services seems to provide the biggest and most immediate impact on personal welfare. Anandram (2016) from the Southern African Development Community establishes that gender gap prevails even in countries with the highest financial inclusion, the gap in account usage...
is wider than account ownership, gender affects financial inclusion and that financial literacy through financial education should be enhanced to promote financial inclusion.

In Indonesia, Hidayat and Sari (2022) argues that the level of financial inclusion remains uneven between provinces in Indonesia. The lowest level of financial inclusion related to accessibility. The study recommended that the government should provide socialization and education of financial products to the public community, especially formal financial services such as banks.

From the context of India, Kumar (2014) acknowledges that efforts towards financial inclusion are not standalone efforts. It involves integrated efforts to diversify the limitation of a single effort only. Financial literacy, branch expansion, innovative services, e-governance, infrastructure, and various other integrated approaches should be implemented simultaneously.

Zins and Weill (2016) upon evaluating the determinants of financial inclusion in Africa concluded that being a man, richer, more educated, and older favors financial inclusion with a higher influence on education and income. Mobile banking is driven by the same determinants than traditional banking.

In Ethiopia, Katema et al. (2020) establish that financial literacy, religion, repayment period, age, technology use, and access to informal sectors had varying impacts on the financial inclusion of young people. It was therefore established that these factors should be keenly looked at whenever personal characteristics are in focus towards ensuring that financial inclusion is enhanced.

In Uganda, Eton et al. (2021) revealed that financial inclusion is significant in supporting SME growth. The study further revealed that the cost of acquiring and servicing financial services is high; there is also difficulty in using some of the financial services, and the way financial providers treat financial users, some lack some degree of respect and dignity.

In the context of Kenya, Kamunge et al. (2014) argues that access to finance and availability of management experience are the key socio-economic factors affecting the performance of businesses in Limuru Town Market. The other key factors that were found to affect businesses in Limuru Town Market positively are access to business information, access to infrastructure, and government policy and regulations. Also, Aduda and Kalunda (2012) in Kenya conclude that enhanced measures of financial inclusion which include both access and usage should be applied since access and usage are not the same but supplementary.

Lenka and Bairwa (2016) showed that banks are still the most prevalent providers of financial services and products, reaching 24.8% of adult hens. In addition, the mobile money provider reached 14.8% of adults and 3.8% of them used microfinance services. Fewer than 6% of adults reported using pensions and/or insurance benefits, and less than 1% used capital market instruments. The existence of deposit guarantee schemes and tax incentives was forecasted and estimated to result in greater financial inclusion.

This study focuses on personal characteristics and how they influence financial inclusion to provide relevant conclusions and recommendations to policy on what it takes to promote financial inclusion. The various personal characteristics that were studied were gender, access to mobile phones, urbanization, education, age, income, and
marital status. Understanding the determinants of financial inclusion is an important issue as financial inclusion can boost economic growth and greatly contribute to poverty alleviation.

2. Personal Characteristics and Financial Inclusion

2.1. Gender and Financial Inclusion

Gender has been found to assume an important role in financial inclusion understanding. Understanding how gender is affected by financial inclusion results into more insights on how the disadvantaged gender can be protected by legislation. For instance, the exclusion of women from financial services has been reported by several studies that have found that women are more excluded than men both at firm and personal levels. Studies report that female-owned firms face more financial constraints than male-owned businesses (Presbitero et al., 2014). Ozili (2018) state that the gender gap prevails even in countries with the highest financial inclusion and that a gender gap in financial inclusion exists even after controlling for personal characteristics such as rural residency, education, income, employment status and age. The gender gap in African seems related to women being active outside the financial sector (Allen et al., 2016). Additionally, the study suggests that African women are more probable to take part in informal financial services and which have shown the lowest level of financial inclusion. In another vein, the economist Allen et al., (2016) analyses personal characteristics and find that the probability of having an account at a formal financial institution is higher for employed men, compared to women.

Women are considered a handicapped group, with lower levels of education and fear of dealing with official documentation and inclusion (Beck et al., 2015). There should be a distinction between women who have unluckily not had the opportunity to become educated and women who are educated, and those who are unemployed and employed, and therefore financially included in the economy.

Salyanty et al. (2018) establish that the existing gender gap in the financial sector is due to female participation in the economy but not within the financial sector itself. Women are discriminated against, as they take informal credit for granted and do not substitute it for formal credit. Swamy (2014) examines the impact of financial inclusion where women are the head household relative to the male head of the household. The study finds that income growth net of inflation effect is 8.40% for women against 3.97% for men, indicating that the gender of the personal participating undoubtedly affects the outcome difficulties in becoming part of the financial system mainly due to financial illiteracy.

Mwamba (2016) observed that all personal characteristics are significantly related to financial inclusion. The study findings show that women have a reduced likelihood of owning a formal account or using formal savings, whereas an insignificant effect is seen relating to formal borrowing in developing countries. They also find age to have a nonlinear relation with the indicators of financial inclusion, hence, older people are more likely to be financially included.

2.2. Access to Mobile Phone and Financial Inclusion

The adoption of mobile phones to provide financial services has become instrumental in integrating the unbanked segments of a population into the mainstream financial systems. According to Aron (2017), the significant
adoption of locally developed mobile money innovations in Africa is puzzling, since traditionally new technologies are developed in advanced countries, before gradually spilling over to less developed countries.

Bukere (2022) establishes that owning a mobile phone increases financial inclusion than those who do not own one. Beck and de la Toore (2006) argues that mobile phones penetration rate has enhanced the usage of mobile money and even those who are not formally banked find themselves financially included in the mobile banking transactions and which nowadays allow for both deposit and borrowing arrangements.

Mobile phones access promotes mobile money access and which provides significant efficiency improvements compared to traditional means of money transfer since it reduces travelling time, and enhances safety and convenience (Munyegera & Matsumoto, 2016). This provides an easier enabled mechanism of promoting access to financial services especially provided the convenience it comes with.

Mobile money innovations like M-Pesa (and others as per country specific) can also be viewed as inclusive innovations given their capacity to foster financial inclusion by reaching previously unbanked populations (Pansera & Owen, 2018). Ozili (2018) explain that the major assets of mobile money services are convenience and affordability. The success of mobile money is rooted in its ability to be cheaper than other substitutes to cash.

On the other hand, Swamy (2014) in a study made a comparison of 6 banks where showed that branchless banking (including mobile money) is cheaper by a minimum of 19% on average than alternative services. Lower transaction costs render money the poor can save, which lead to remittances increasing when transferred using related to traditional forms of remittances.

Boro (2017) ascertains that there is a positive relationship between the number of mobile money subscribers and the dependent variable (financial inclusion). The study concluded that the number of mobile money transactions is a good predictor of deposit financial inclusion and which can inform even relevant policy makers.

2.3. Urbanization and Financial Inclusion

Urbanization, coupled with innovation in payment technologies (cryptocurrencies and complementary currencies), provides opportunities to fund sustainable urban development funds and achieve financial inclusion for urban communities. In a study of a regression between the main indicators of financial inclusion and the personal characteristics of the adult population using household data from the FinScope Household Survey (2020), the results observed that financial inclusion is skewed towards urban areas, where urban residents have a significantly greater probability of being financially included.

Cheronoh (2019) regarding urbanization notes that rural women, youth and other marginalized groups can increase their financial inclusion despite their condition through involvement in table banking, merry go round and formation of other informal groups where they can guarantee each other at personalized terms.

Sanderson et al. (2018) establishes that distance from financial institutions affects financial inclusion in a way that people who are far off from financial institutions are likely less financially included that those who are in close proximity to the centers of financial institutions. This study finding implies that access to finance is basically a function of the distance between the service provider and the consumers of the financial products.
Financial inclusion has also been determined to be affected by personal characteristics such as rich or poor. Lenka and Bairwa (2016) highlight that low-income adults are afforded tools to save, borrow and make payments while managing risks posed by an inclusive financial system. This aids in decreasing the impacts of unanticipated falls in income common among those in the informal sector and in the facilitation of consumption smoothing.

Swamy (2014) on the other hand establishes that financial inclusion favouring policies should equally target the rural areas as much as they target urban areas. This move ensures that marginalized areas and groups are able to experience equal measure of financial inclusion just as the urban areas where most of the financial institutions have been established.

Lyons et al. (2017) reveals that those living in more urbanized areas and megacities are less likely to demand bank and non-bank loans even after controlling for other factors, suggesting that there may be an “urbanization effect” that is dampening credit access and usage. The potential endogeneity between the infrastructure and the loan demand is taken into consideration. Also, the results show that decisions related to the loan demand and infrastructure mostly appear to be made independently.

Ye et al. (2018) on a study of the financial development, urbanization, and urban–rural income disparity in the Chinese Provincial Data reveals that the imbalance of urban and rural financial resources is exacerbated by the financial threshold effect, leading to the fact that the financial development-measured by scale, efficiency and structure, respectively, expand the urban-rural income gap. The study further finds that the developing urbanization will widen the urban-rural income gap.

In a study on spatial effect of digital financial inclusion on the urban–rural income gap in China—analysis based on path dependence, Li et al. (2023) establishes that Digital financial inclusion (DFI) helps to narrow the income gap between urban and rural areas, but path dependence may lead to spatial agglomeration in the development of DFI, causing the spatial effect on the urban–rural income gap.

2.4. Education and Financial Inclusion

Micro econometric studies, often randomized controlled trials, show that financial literacy is causally related to financial inclusion. Educated people have a better understanding of the benefits of financial services, but are also more confident in contacting providers. Grohmann et al. (2018) Cross-country evidence indicates that in poorer countries improved financial supply and demand are substitutes, i.e., they work independently of each other. In higher-income economies, however, these instruments are complements, i.e., it is useful to improve financial literacy in order to make better use of available financial services.

The empirical findings showed by Hasan et al. (2021) suggest that knowledge regarding various financial services factors had significant impacts on getting financial access. Some variables such as profession, income level, knowledge regarding depositing and withdrawing money, and knowledge regarding interest rate highly affected the overall access to finance.

Bakhshi and Agarwal (2020) on a study to determine the impact of education on financial inclusion established that financial literacy and inclusion go hand-in-hand. Beck et al. (2015) found a strong education effect in
explaining access to financial services. The study finds that graduates had the least difficulties raising finance from banks. Secondly, the educated managers/owners have the skills to manage the other functions of the business such as human resources, finance, marketing, and these skills results to high performance of the business which helps those firms to access finance without any challenges. Thirdly, the study also found that bankers value higher education level of the owner/manager in the loan approval process as an important criterion.

Recurrent barriers to financial services for those who are poor, less educated, unemployed, or rural residents are cost, and distance for rural residents. The likelihood of saving formally is higher for persons with the same characteristics (Mwamba, 2016). This finding further establishes that education is likely to influence formal savings which directly affect the degree of financial inclusion.

Ajayi and Ross (2020) on the effects of education on financial outcomes establish that increases in educational attainment contribute to increased use of formal financial services. The study also establishes that increases in financial capability, employment rates, and incomes have a bearing on financial inclusion.

On the other hand, Nguli and Odinga (2019) establish that entrepreneurial education positively and significantly influences financial inclusion which implies that higher levels of education likely increase the financial knowledge of people which makes them capable of making financially intelligent decisions than those who lack financial literacy.

2.5. Age and Financial Inclusion

Various studies have been carried out to establish whether age, as a personal characteristic affects financial inclusion in various contexts and countries. Sanderson et al. (2018) in the context of Zimbabwe establish that age is positively related to financial inclusion. According to this study, wisdom and knowledge follow age and as people get to becoming old, they start to make wise financial decisions and are all interested in luxurious spending. Further, the youth start to earn upon attaining the majority age which raises their access to finance and as people retire, their financial inclusion tends to decline, unless for the case where they remain active and were able to invest while in the working years.

In the context of Argentina, Tuesta et al. (2015) having studied the main factors affecting financial inclusion determined that age as one of the personal factors plays a critical role in financial inclusion. According to the study, as people grow old, they tend to increase their curve of financial inclusion until the maturity of retirement when the curve tends to start reducing.

On whether socioeconomic factors such as age affect financial inclusion, Chithra and Selvam (2013) establish that financial inclusion is positively and significantly affected by age. Also, Akudugu (2013) having accessed the factors affecting financial inclusion in the context of Ghana establishes that financial inclusion is determined by age, among other personal characteristics.

Asuming et al. (2019) having done a comparative analysis of financial inclusion in 31 Sub-Saharan African countries using data from the global Findex database establish that the personal covariate of age is a significant predictor of financial inclusion. According to this study, since bank account owners must be of majority age,
minors are mostly financially excluded due to their age factor and in case they may require direct access to financial services, they are limited to do so through their parents/guardians who are not minors.

Nguli and Odinga (2019) from the Kenyan perspective study suggest that young entrepreneurs seem to have more chances of being included compared to the aged. Age influences the access and use of financial services. This is also in line with Ouma et al. (2017) who also established that the youth are more productive compared to the aged and that they are likely to be more willing and able to access financial products and services compared to the aged.

Bukere (2022) in a comparative analysis of the level of financial inclusion between Kenya and Ethiopia establishes that Kenya leads in financial inclusion and then Ethiopia. The study determines that age has a significant and positive effect on financial inclusion in the context of both Kenya and Ethiopia.

2.6. Income and Financial Inclusion

Regarding whether income affects financial inclusion, Sanderson et al. (2018) establish that income has a positive significant relationship with financial inclusion in a way that as people’s incomes tend to increase, people’s financial inclusion also increases. Since many people are paid through bank accounts while even those who are paid outside bank accounts have to in one way or another send the money or withdraw it from the banks, the need for financial institutions becomes critical to them.

Asuming et al. (2019) from an analysis of 31 Sub-Saharan African countries regarding financial inclusion establish that income affects financial inclusion. The study using data from the global Findex database establishes that the personal covariate of age is a significant predictor of financial inclusion.

Bukere (2022) from the Kenyan and Ethiopian comparative study evaluates that employment status and which yields income as an output has a direct and significant effect on financial inclusion. Given that banks lend to those who are credit-worthy, those who earn tend to be favored by commercial banks when it comes to access to credit more than those without an income.

From the context of Argentina, Tuesta et al. (2015) having studied the main factors affecting financial inclusion determined that income as one of the personal factors plays a critical role in financial inclusion. According to this study, financial inclusion tends to be on the rise during the earning years as opposed to the yearning years.

Findings from Ghana by Akudugu (2013) on the critical drivers for financial inclusion establish that income is one of the fundamental social economic personal factors affecting financial inclusion and which is also supported by Chithra and Selvam (2013) who also establishes that age is a critical social economic factor which has a positive effect on financial inclusion.

2.7. Marital Status and Financial Inclusion

Regarding whether marital status influences financial inclusion, Nguli and Odinga (2019) establish that single women have a higher likelihood of financial inclusion as compared to married women since married women tend to rely on their partners in the management of their finances as compared to their corresponding single women.
Vo and Nguyen (2021) in their study determined that married status among people creates more social advantages such as respect and a sense of responsibility and many developing countries will likely favor married people in their prospects of access to financial services and other resources compared to the singles.

Chenaa et al. (2018) from the smallholder farmers in South West Region of Cameroon regarding marital status’ effect on financial inclusion establish that marital status influences the access to credit of smallholder farmers in Cameroon. Married people were viewed to be more responsible, more hardworking, and more likely to access financial services as compared to those who were single.

Kiai et al. (2016) on the influence of demographic characteristics on investment among financially included youth in Nyeri and Kirinyaga Counties find that the majority of investments are done by married people as opposed to singles. The study therefore concludes that married people due to the pooling of resources together tend to be better placed in terms of financial inclusion as compared to those who are not.

3. Methodology

This part describes the methodology adopted to meet the objectives of the study. It covers data collection techniques, study design, samples and sampling procedures, equipment, data analysis, and techniques. The study chose a descriptive study design to explain how personal characteristics affect financial inclusion.

The study population included all internet-available literature on personal characteristics and financial inclusion through a systematic review of the literature. Searching using keyword letters initially identified 84 journals, and after preliminary screening, 44 journals were randomly selected to produce this discussion paper.

As this study relied entirely on secondary data, a collection of documented data was used to obtain basic information, literature, and background for this research topic. Secondary data included information from textbooks, unpublished and published papers, journals, and the Internet on personal characteristics and how they impact financial inclusion across the world. In this study, secondary data were most favored over primary data because of minimal bias, ease of reference, faster knowledge retrieval, and favorable time constraints. Results and recommendations were explained according to the empirical literature reviewed.

4. Conclusions and Recommendations

This section presents the conclusions and recommendations based on the personal characteristics’ impact on financial inclusion.

4.1. Conclusions

4.1.1. Gender and Financial Inclusion

On gender, the study establishes that male-owned firms are more favored about financial inclusion compared to women-owned firms. Further, the study concludes that women are more segregated from financial inclusion due to gender roles where in most settings, especially among many developing nations, it is the men who make critical financial decisions in a household. Studies have shown that women are more disadvantaged in terms of access to formal education which can inform the possibilities that men are dominant in career occupations. The gender gaps
are more apparent in countries with high financial inclusion in the African setting which informs that there could be social discrimination and social injustices. The study concludes that Women are more active in the informal financial sector as opposed to the formal financial sector and that a great number of women, especially in developing countries do not hold bank accounts which make it difficult for them to access finance from the formal sector.

4.1.2. Access to Mobile Money and Financial Inclusion

Regarding access to mobile phones and hence mobile money and whether it affects financial inclusion, the study concludes that mobile phones promote access to mobile money significantly which improves the efficiency of financial transactions and reduces the overall transaction cost which results in increased convenience of financial services access. Studies have shown that reduced transaction costs make money access affordable to even the poor populations and encourage twenty-four-hour transactions in a friendlier and convenient manner. It can therefore be concluded that the number of mobile money transactions has turned towards being a good predictor of deposit financial inclusion. The study concludes that ownership of mobile phones boasts financial inclusion than in the cases where locals lack ownership and access to mobile phones.

4.1.3. Urbanization and Financial Inclusion

The study regarding the role of urbanization on financial inclusion concludes that financial inclusion is skewed towards urban areas, where urban residents have a significantly greater probability of being financially included. The study concludes that financial inclusion is affected by personal characteristics such as social status and that those who come from urban areas are more informed about access to financial services and hence better advantaged in financial inclusion than those who are from rural backgrounds. Further, many financial institutions are spread among urban areas as compared to rural areas and hence the low rate of financial inclusion is experienced among people in the rural areas.

4.1.4. Education and Financial Inclusion

Regarding the effect of education on financial inclusion, financial literacy has been concluded to have a direct relationship with financial inclusion in a way that poorer countries are likely to have low levels of education resulting in low development as well as low financial inclusion. Educated people, especially graduates have low difficulties raising finance from banks as they are exposed to the know-how of what it takes to access capital from financial institutions. Further, educated people are likely to practice formal banking which increases their chances of getting access to capital from financial institutions. The study concludes that financial institutions have a lending appetite towards the educated groups since the elites have better financial discipline and financial planning philosophies which can steer their likelihood to repay the borrowed funds as compared to those who aren’t educated.

4.1.5. Age and Financial Inclusion

Based on the findings of age on financial inclusion, the study concludes that financial services are accessed by those who are of majority age and not minors. The study further concludes a diminishing trend of financial
inclusion as people age toward retirement. The study concludes that many financial institutions are likely to lend based on future expected cash inflows before retirement and that youths who are well-educated are more likely to easily access financial services than those who are not. Further, it is concluded that those who are of mature age tend to exhibit more financial discipline than those who are not and hence likely to qualify for financial services than those who are less educated.

4.1.6. Income and Financial Inclusion

On the effect of income on financial inclusion, the study concludes that income has a positive significant effect on financial inclusion in a way that those with more access to some income can directly access financial institutions and financial services to that effect due to the security of the future earnings and that through the various bank transactions, those with steady income can proof their status of creditworthiness as compared to those without steady income.

4.1.7. Marital Status and Financial Inclusion

The study on whether marital status influences financial inclusion generally has concluded that single women have a high probability of financial inclusion while marriage on the other hand tends to provide some social status which may influence married people’s possibilities for high financial inclusion. Further, the study concludes that married people are more financially sensible than singles and that married people who pool their resources together perform better financially than singles.

4.2. Recommendations

Following these findings, the study recommends that based on gender equality, relevant legislation should be enforced to support women in access to financial services especially in the developing countries’ context to avoid dominance in financial inclusion. The study also recommends that mobile regulators should review the existing regulatory structure to come up with clear regulations for all mobile operators to make mobile banking more affordable and friendly to all people, both the rich and the poor and that the government should reduce taxation on mobile phones to make mobile phones affordable to all people in a bid to increase financial inclusion. The study recommends that governments need to ensure financial institutions are spread both to the urban and rural areas and that there should be constant financial literacy programs by the governments to the rural inhabitants on the importance of using financial institutions for their financial needs. On education, the study recommends that governments should make education available to all their citizens, both male and female, poor and rich, marginalized and un-marginalized, urban and rural to ensure that financial services become accessible to all people irrespective of whom they are and where they come from.

The study recommends regarding age that the government should issue identification documents to youths upon attainment of majority age to enable them to have prospects of accessing financial services with ease. The study regarding income and financial inclusion recommends that people should be encouraged to save their money in financial institutions, even if their earnings are low to provide proof of a regular stream flow of income which can boost their financial inclusion status. The study recommends that married people should pool their resources
together to benefit from financial products and services and that also single women should take advantage of their ability to single-heartedly manage their financial resources to ensure that they benefit more and do more in terms of self-development while still single.

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The authors have declared that no competing financial, professional or personal interests exist.

**Consent for publication**

Both the authors contributed to the manuscript and consented to the publication of this study.

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