Gender and Financial Inclusion: Analysis of financial inclusion of women in the SADC region

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Executive summary

Gender gap prevails even in countries with the highest financial inclusion: The gender gap in bank account ownership is highest in Botswana, Swaziland, and Mauritius, while South Africa is the only country with a positive gender gap, i.e., women being more financially included than men. This is may be mainly driven by women receiving social grants through SASSA card.

The gap in account usage is wider than account ownership: The gender gap is wider when usage rather than access is used to gauge financial inclusion. For instance, in Malawi the gap in bank account usage is 19 percent while the gap in access to bank account is only 8 percent. Not surprisingly, despite the higher proportion of females being banked in South Africa, it is actually males that have more used accounts than females. Most bank accounts owned by females in South Africa are either dormant or mailbox accounts. The gender gap in access to bank credit is bigger even in countries where the level of access is the highest.

More females use someone else's account: Usage of someone else's account is the highest among females, and this is the case especially in Zambia, Tanzania and Swaziland. Furthermore, more females cite lack of money as the primary reason for not having a bank account. Females also cite remoteness of bank branches and lack of understanding about how banks operate as reasons for not having a bank account.

Gender affects financial inclusion: Gender affects financial inclusion even after controlling for individual characteristics such as household size, age, education, place of residence, marital status, employment status, income, and level of education, implying that financial services are biased against females.

Promote financial literacy through financial education: Financial education programs targeted at females will enable them to develop a reasonable understanding about the language used by banks, benefits of owning a bank account, and how to apply for it. Such programs should also enable females to develop skills in household financial management that leads to their empowerment and increased involvement in household financial decisions.

Introducing agency banking and mobile money in rural areas: Agency banking and mobile money will help females in rural areas that are excluded from owning a bank account due to remoteness of bank branches.

Strengthening informal financial service providers to expand the outreach of financial services to females in rural areas: Accessibility to informal financial service providersand their ability to design products that suit the needs of individuals makes them ideal for many females in the region. However, informal operators may not have the technical know-how of managing financial services and may also lack resources to satisfy the needs of their clients. Building the financial and managerial capacity of the informal financiers may allow majority of rural females to get quality financial services at a cheaper cost.

Mitigating risks in the informal sector: While the informal sector supports female access to financial services, there are always the risks of exploitation. Safety nets need to be provided through appropriate consumer protection measures.

Income generating capability to improve financial inclusion and address gender disparity: Both the descriptive and economic analyses point to the fact that financial inclusion is strongly linked with income generating capability. With women facing wider exclusion it is important to also address the issue of gender equality in economic activities.

Contents

List of Tables

List of Figures

1. Introduction

Financial inclusion, i.e., access to and uptake of affordable financial services, allows individuals to store value in a safe place, access credit, and through insurance products manage risks. Without inclusive financial systems, poor individuals and small enterprises need to rely on their own limited savings and earnings to invest in their education, become entrepreneurs, or take advantage of promising growth opportunities (Beck and Honohan, 2008). Financial inclusion is an important tool for eradicating poverty and narrowing income inequality and as such it is an integral part of inclusive development and a building block for poverty reduction strategy (Chibba, 2009). The role of financial inclusion in poverty alleviation is supported by empirical evidence. For instance, Burgess, Pande and Wong (2005) reported that state-led branch expansion into rural unbanked locations and the enforcement of directed bank lending in India led to reduction in poverty through increased bank borrowing among the poor, in particular among low caste and tribal groups.

Although access to finance has not been directly spelt either in the Millennium Development Goals (MDGs) or in the new Sustainable Development Goals (SDGs), access to financial services is an important direct or indirect contributor to the achievement of most of the goals (Claessens and Feijen, 2007). For instance, in the case of education and health, one important effect of access to financial services is through the income effect: better access to financial services improves incomes and therefore the possibility of obtaining health and education services. It also contributes to the fourth SDG goal of gender equality because allowing women direct access to financial services might improve their possibilities to become entrepreneurs, thus increasing their individual incomes, their chances to become more independent, and their participation in family and community decision making. Improving financial inclusion has thus received attention in a number of national governments. According to Demirgüç-Kunt et al. (2015), out of 143 economies, 67 percent have a mandate to promote financial inclusion and more than 50 countries have set formal targets and ambitious goals for financial inclusion. International organisations, including the G20 and the World Bank, are also beginning to formulate strategies to promote financial inclusion.

Demirgüç-Kunt et al. (2015) reported that 62 percent of adults worldwide have an account at a bank or another type of financial institution or with a mobile money provider. They also highlighted the existence of marked disparity in financial inclusion across regions. For instance, 94 percent of adults in the OECD countries have an account compared to only 34 percent in sub-Saharan Africa (SSA). Besides, there is a gender gap in financial inclusion which is highest in developing countries, with account penetration being lower among women. While the global gender gap[2] is 7 percent, it is 9 percent in SSA (30 percent for women compared to 39 percent for men). Based on the latest FinScope data for 12 countries, the gender gap in the SADC region is 5 percent (60 percent for men and 55 percent for women) which is slightly below the SSA average.

Exclusion of women from financial services has been reported by a number of studies that have found that women are more excluded than men both at firm and individual levels. Studies report that female-owned firms face more financial constraints than male-owned businesses (see for instance, Presbitero et al., 2014; Henderson et al., 2015; and Beck et al., 2011). Using firm level data from countries in the Caribbean, Presbitero et al. (2014) reported that women-led businesses are more likely to be financially constrained than other comparable firms. Similarly, Henderson et al. (2015) noted that men are more favourably treated when it comes to access to credit lines than women in the US, and women and minority applicants are concerned that they receive even less favourable treatment from lenders that is unrelated to their creditworthiness. This has been further strengthened by Beck et al. (2011) in a European study in which they reported that female borrowers are less likely to secure a loan when the loan officer is male. They also reported that female borrowers assigned to opposite-sex officers get loans with unfavourable terms such as higher interest rates and shorter maturities. More recently, Demirgüç-Kunt et al. (2015) confirmed the existence of a gender gap in financial inclusion even after controlling for a host of individual characteristics including income, education, employment status, rural residency and age.

The gender gap is worrisome because exclusion of women from economic activities means that their important contribution to economic development will be missed. Furthermore, exclusion deprives women of human rights which should allow them to have equal

[2] Gender gap refers to the difference in the level of financial inclusion between men and women.

opportunity to participate in social and economic activities. Two important arguments, i.e., the human rights argument and the capabilities argument, put forward by Beneria et al. (2015) can be used to establish the importance of ensuring gender equality and hence eliminating the gender gap. According to the human rights argument, women should enjoy equal access to financial services so that they have equal participation in social and economic activities. Women constitute 50 percent of the world population and their exclusion would be detrimental to equitable economic growth. A gender gap therefore not only affects women but also the whole nation by derailing economic growth. For instance, Knowles et al. (2002) reported that educational gender gap is an impediment to economic growth. Earlier, Klasen (2002) reported that gender inequality in education directly affects economic growth by lowering the average level of human capital. Recently, Klasen and Lammana (2009) reported that economies in the Middle East and North Africa lose economic growth opportunities due to the gender gap in education suggesting that barriers to female employment are not only disadvantageous to women, but also appear to reduce economic growth in both developed and developing countries.

The capabilities argument emphasises the abilities of women in enhancing household welfare and hence reducing poverty. Studies confirm that women manage resources better than men. For instance, Pitt and Khandker (1998) reported that microcredit has a larger effect on the behaviour of poor households in Bangladesh when women are the program participants. The effect was captured in the form of a higher gain in annual household consumption expenditure for women compared to men. Similarly, a recent study in India by Swamy (2014) reported that women with access to microcredit experience a higher income growth than men (8.40 percent for women against 3.97 percent for men). They also report that women use the resources in a manner that improves family well-being and contribute to significant increase in savings levels of the households. Similarly, women's credit is found to have an impact on the health of both boys and girls while credit provided to men do not have a similar effect on children's health (Pitt et al., 2003). This is attributed to the fact that women often make more optimal household spending decisions affecting children's welfare (Rawlings and Rubio, 2005). The financial inclusion of women also leads to their empowerment. As reported by Pitt et al. (2006), access to credit leads to women taking a greater role in household decision making, having greater access to financial and economic

resources, having greater social networks, having greater bargaining power vis-a -vis their husbands, and having greater freedom of mobility.

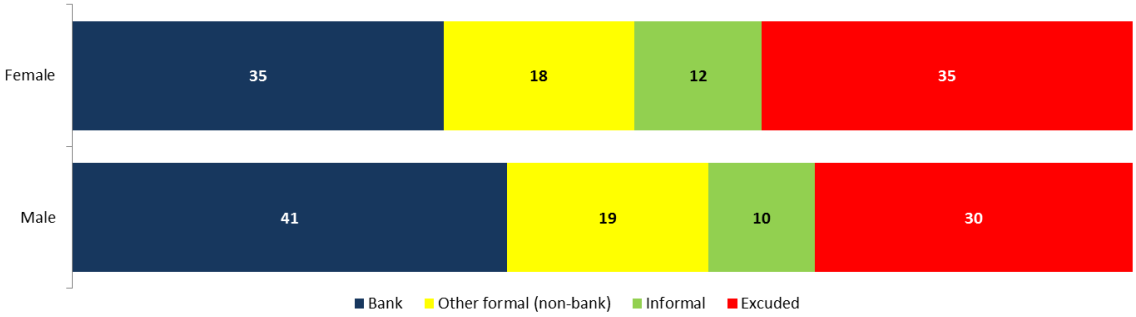
Against the foregoing benefits of women access to financial services, this policy research paper examines the significance of the gender gap in financial inclusion in the SADC region with a view to providing policy prescriptions. Unlike previous studies that mainly focused on examining the state of access to formal and informal financial services, the paper subjects the FinScope data in the public domain to econometric analysis in order to study the relationship between gender and financial inclusion in the SADC region.

The rest of the paper is organised as follows: The next section presents an overview of financial inclusion in the SADC region emphasising the cross-country comparisons. Section three describes the data and presents the econometric model used in examining the relationship between gender and financial inclusion. Section four presents the analysis and discussions which are divided into preliminary analysis and econometric results. Section five includes the conclusion followed by policy recommendations in section six.

2. Financial inclusion of women in the SADC region: an overview

The comparison of the Access Strand for males and females in the SADC region shows that females are less banked than males with a 6 percent gap. As shown in Figure 1, proportionally lesser women have accounts at other formal financial institutions. However, informal inclusion is slightly higher among females narrowing the overall level of gender gap in financial inclusion to 5 percentage points.

Figure 1: SADC Access Strand by gender (including South Africa)

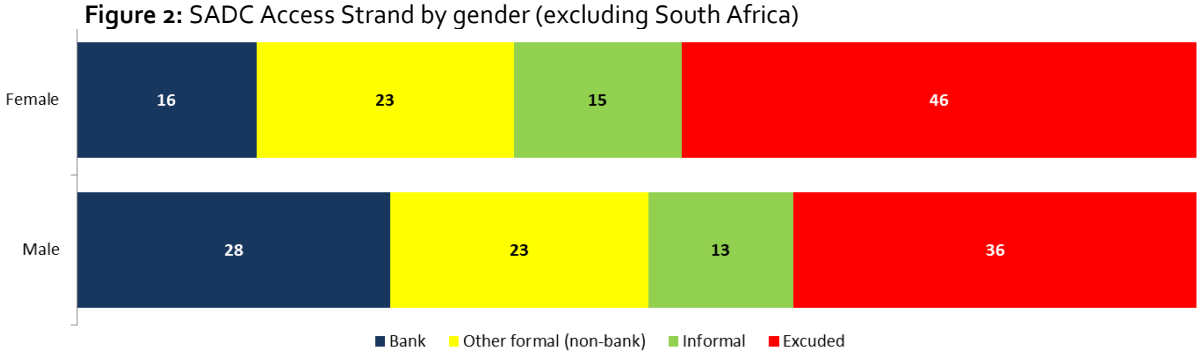


Source: FinScope

The above picture significantly changes when one excludes South Africa where women are more financially included than men. The Regional gender gap doubles for bank account

ownership while account ownership at other formal and informal providers remains almost unchanged. The gap in financial exclusion also doubles from 5 percent to 10 percent. A similar experiment using other countries with a relatively higher level of financial inclusion in the Region (such as Mauritius and Botswana) did not change the picture. A probe into the nature of financial inclusion in South Africa shows that more women are banked due to the SASSA MasterCard[3] ownership.

Figure 2: SADC Access Strand by gender (excluding South Africa)



Source: FinScope

3. Data and methodology

Data for the study were obtained from nationally representative FinScope Consumer Surveys conducted in different years in Botswana, the Democratic Republic of Congo (DRC), Malawi, Mauritius, Mozambique, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Although FinScope surveys were available for Namibia and Lesotho for 2011, the two countries were excluded because the data are old. Table 1 reports the FinScope survey, size and year for each country.

[3] SASSA MasterCard was introduced by the South African Social Security Agency (SASSA) and given to social grant recipients in South Africa. The card allows grant recipients to cash out their money at ATMs of any bank and also swipe the card at shops. In 2015, 10.5million South Africans (representing 28 percent of adult population) had SASSA MasterCards, comprising 42 percent of adult females and 13 percent of adult males. Further, 63 percent of SASSA card owners also have a bank account in their own name while 37 percent have only SASSA card. Of the total adult population, those who have a bank account in their own name (including those who also have SASSA card) constitute 64 percent. The total banked population (which also includes those who have only a SASSA MasterCard) is 77 percent which includes those who have a bank account in their own name (64 percent) and those who have only a SASSA card (13 percent). The gender split of those who have only a SASSA card is 19 percent of the total banked females compared to 7 percent of banked males. This clearly shows the importance of SASSA card in closing gender gap in financial inclusion in South Africa.

Table 1: Sample size and year survey was conducted

No	Country	Year of survey	Sample size
1	Botswana	2014	1,503
2	Democratic Republic of Congo	2015	5,000
3	Malawi	2014	3,005
4	Mauritius	2014	4,000
5	Mozambique	2014	3,905
6	South Africa	2015	5,000
7	Swaziland	2014	3,440
8	Tanzania	2013	7,987
9	Zambia	2014	8,479
10	Zimbabwe	2014	4,000
	Total		**46,319**

We also used Findex 2014 microdata to analyse the differences in account status (i.e., dormant, mailbox, and used) between gender groups.

4. Analysis and results

Preliminary analysis was conducted using descriptive statistics to compare access to account, savings and credit across gender groups. A more robust analysis was conducted through inferential statistics using three econometric models (for more details see Appendix A). The models were used to capture the effect of gender on access to account, savings, and credit while keeping unchanged factors such as income, household size, age, place of residence, marital status, level of education, and employment status. The paper utilised the FinScope data to look at overall access and also segment it into individual elements that include access to banks, access to formal financial institutions (i.e. banks and non-bank formal financial institutions), and access to informal finance.

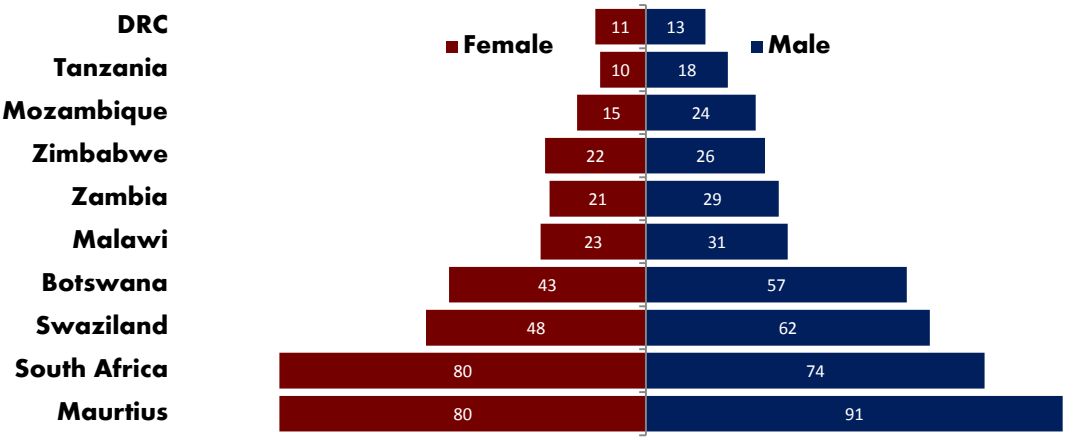
4.1. Preliminary analysis

4.1.1. Account ownership by gender across countries

Account ownership was analysed across gender groups by first looking at bank account ownership as this represents the most common pathway of access. As depicted in Figure 3, females have lesser 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 (2%) having the

smallest gap. South Africa is the only country in the region where more females are banked than males. This is may be mainly driven by social grant payments that go to relatively more females than males.

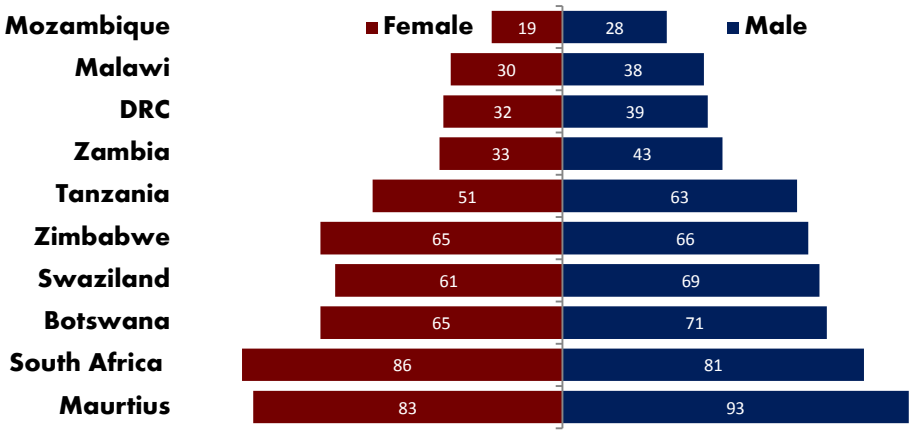
Figure 3: Bank account ownership by gender in each country



Source: FinScope

A further probe into access was made by including non-bank financial institutions such as insurance companies, microfinance institutions, saving and credit associations and the like. As shown in Figure 4, the gender gap narrows in most countries except in Tanzania, Zambia, and the Democratic Republic of Congo where the gap has actually widened implying that access of females to non-bank formal institutions is even worse than access to bank accounts in these countries. The gender gap narrows even in South Africa (albeit marginally) where females have better access than males. The gap persists in Malawi and Mozambique. In Botswana and Swaziland, where the gap in bank account ownership is the largest, it narrows down significantly, implying that the non-bank formal institutions are more accessible than banks to females in these countries.

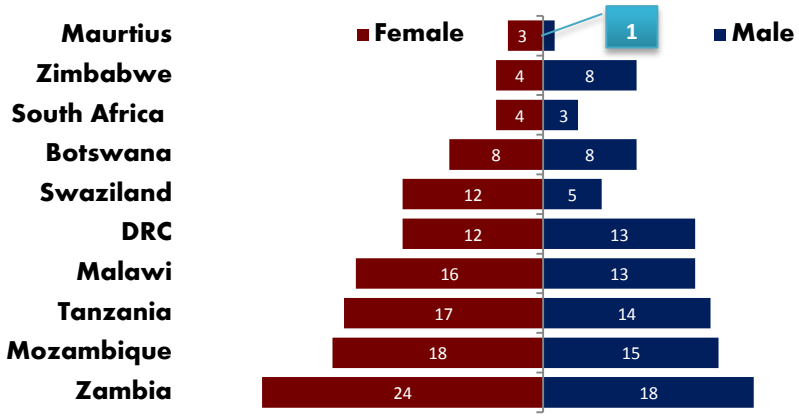
Figure 4: Account ownership at a formal financial institution by gender in each country



Source: FinScope

The gender gap is also evident in the access to informal accounts. However, the gap is opposite with regard to formal account ownership. As depicted in Figure 5, females have more access to informal accounts than males except in Zimbabwe and the Democratic Republic of Congo where more males than females access informal accounts, and in Botswana where access to informal accounts is the same between males and females. The largest gender gap in access to informal accounts is observed in Swaziland followed by Zambia which is consistent with the fact that the gender gap for formal account ownership is among the highest for the two countries. The fact that more females access informal accounts shows that informal providers serve as alternative routes to females that are excluded from the formal sector.

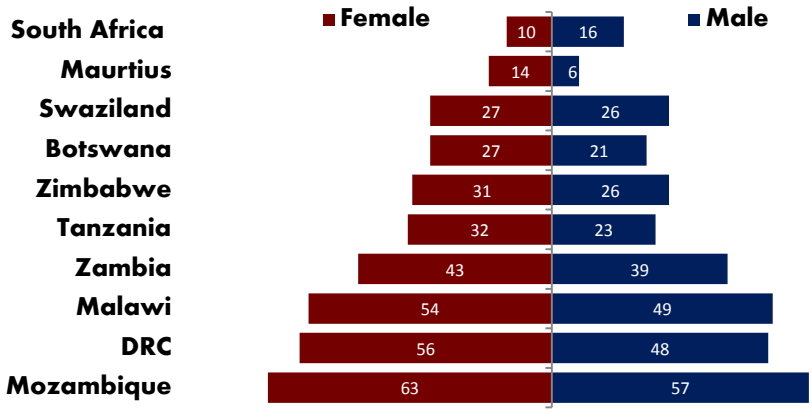
Figure 5: Informal account ownership by gender in each country



Source: FinScope

The overall picture of gender disparity in financial inclusion can be illustrated by looking at the proportion of people that are financially excluded. As depicted in Figure 6, females are more excluded than males in all countries except in South Africa. The largest gender gap is present in Tanzania (9%) followed by Mauritius (8%) and the Democratic Republic of Congo (8%). The lowest gap is in Swaziland mainly due to the fact that the large gap in formal access is offset by the gap in informal access. South Africa is an outlier because fewer females than males are financially excluded.

Figure 6: Proportion of financially excluded population by gender in each country



Source: FinScope

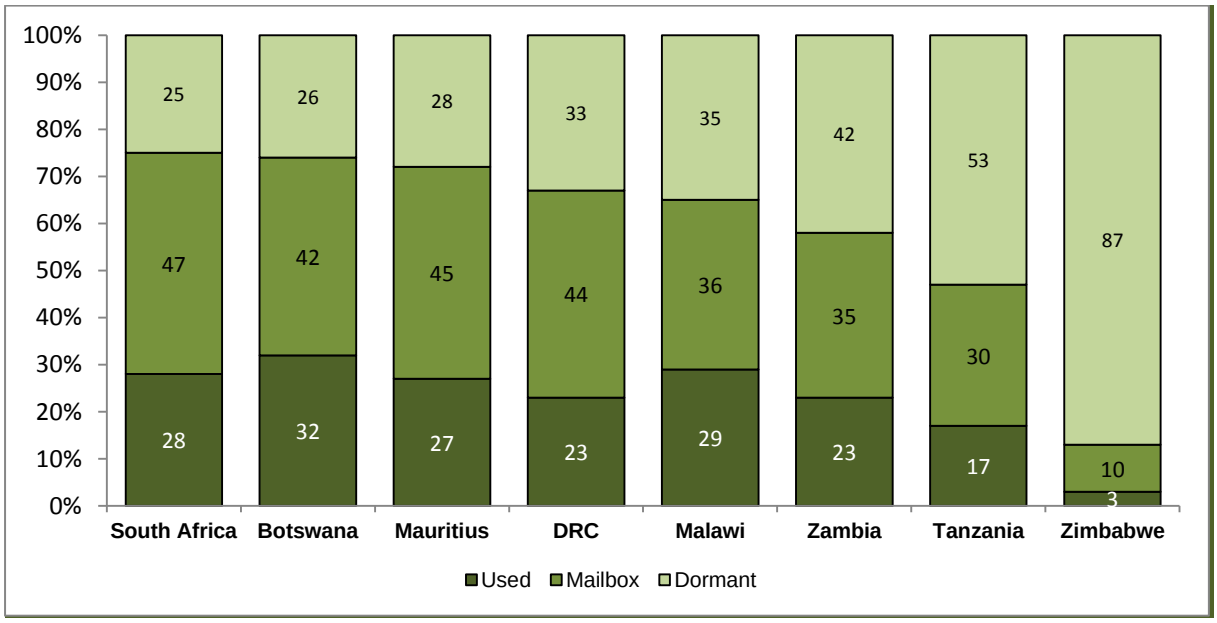
4.1.2. Bank account usage status by gender

The foregoing sections focused on account ownership paying less attention to the extent of usage of the accounts. The importance of usage as a better measure of financial inclusion was highlighted by Rami (2009) who observed that government programmes in India have led to inclusion of large numbers of low-income households without a proportionate increase in usage. Similarly, a recent report by the UNCDF (2016) revealed that a large majority of bank account owners in developing countries seldom use the accounts to store value, to transact, and to access credit and most of the bank accounts are either dormant or used as a mailbox. Analysis of account status[4] was conducted using Findex 2014 microdata

[4] According to UNCDF (2016), accounts are classified into three categories as used, mailbox, and dormant accounts. Used accounts are those that experience at least three withdrawals and/or deposits in a month while mailbox accounts are those that experience withdrawals or deposits at most twice in a month. Dormant accounts are those that did not have any withdrawal/deposit in a month.

for eight[5] SADC countries included in the survey. As shown in Figure 7, despite South Africa and Mauritius being at the top of the access rank in the Region, it is actually Botswana that leads in terms of percentage of used accounts. With 3 percent used accounts and 87 percent having dormant accounts, Zimbabwe is at the bottom of the usage ranking in the Region.

Figure 7: Bank account status in each country



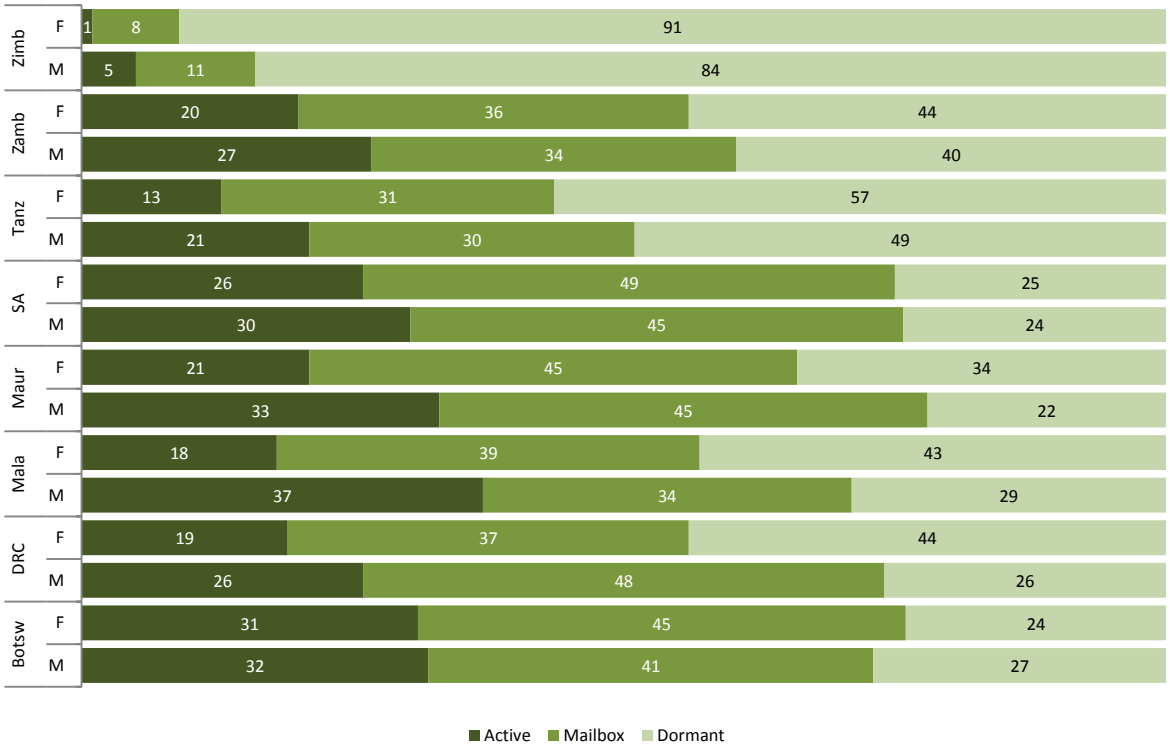
Source: Global Findex 2014

The gender gap in account usage is by far wider than access to a bank account. As presented in Figure 8, Malawi has the highest gender gap in bank account usage (19%) which is more than twice the gap in bank account ownership (8%). The lowest gender gap in account usage is observed in Botswana (1%). Used accounts are skewed towards males while mailbox and dormant accounts are skewed towards females. The gender gap is present even in Mauritius (the country at the top of financial inclusion ranking in the region) where 33% of male bank account holders have a used account compared to only 21% of females. Most dormant accounts belong to females in the countries except Botswana where males have more dormant accounts. In South Africa, a lower proportion of females have used accounts and a relatively higher proportion of females have either a mailbox or

[5] Swaziland and Zambia were not included in the analysis due to unavailability of Global Findex data for these countries.

dormant account which may be due to more females receiving social grants through a bank account.

Figure 8: Bank account status by gender in each country



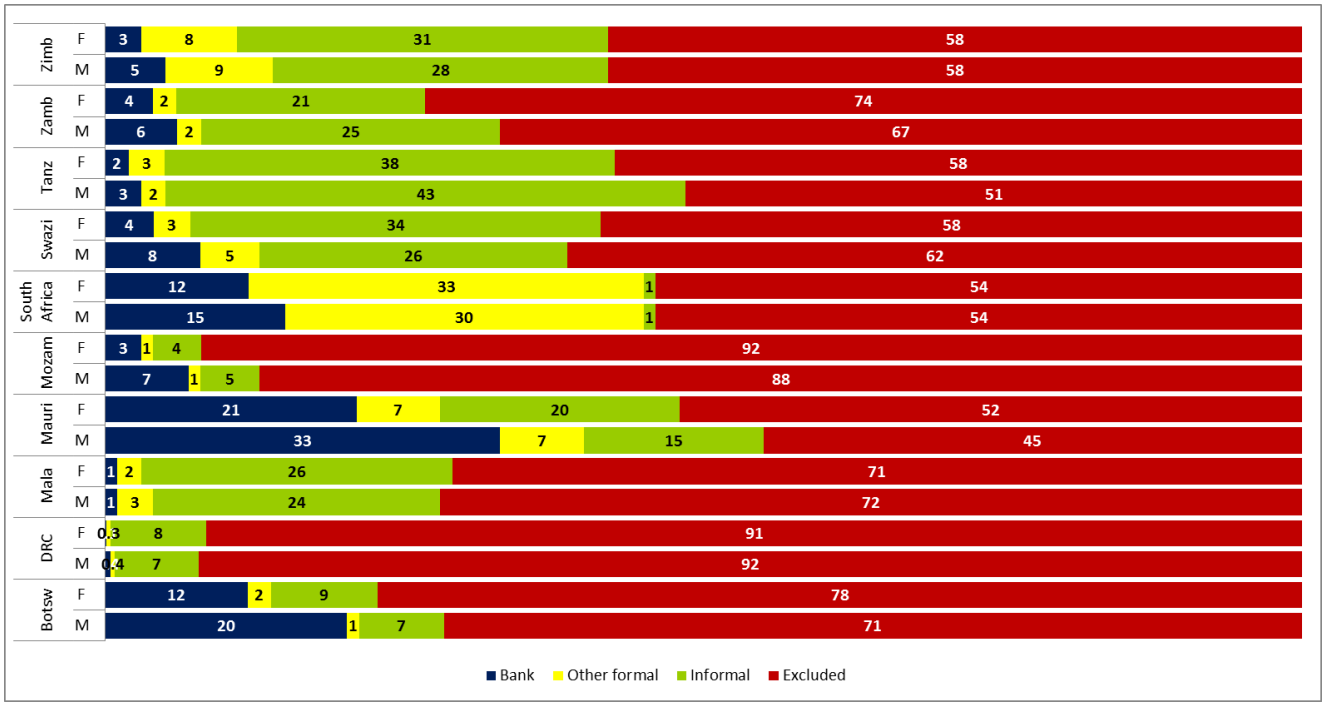
Source: Global Findex 2014

4.1.3. Borrowing by gender

Analysis of access to credit by gender reveals that the gap between males and females is apparent in all countries. As shown in Figure 9, females have lower access to bank credit than males except in the Democratic Republic of Congo and Malawi where there is no perceptible difference between females and males. A large gender gap is observed in Mauritius (12%) followed by Botswana (8%). A relatively low gender gap is observed in Tanzania (1%), Zambia (2%), and Zimbabwe (2%). The gap prevails even when we factor in access to credit from other formal institutions. For instance, in Mauritius, Mozambique and Zambia, the gender gap in accessing formal credit is the same as the gap in accessing bank credit, which means that non-bank financial institutions do not present any better advantages to females than banks. However, in South Africa and Tanzania, the gap disappears when credit from non-bank financial institutions is considered, implying that more females access credit from non-bank financial institutions in the two countries. In

contrast, in Malawi, Swaziland, and Zimbabwe the gap widens further when credit from non-bank financial institutions is factored in, which means that those institutions are less accessible to females than banks in these countries. With more females than males accessing informal credit the reality in the informal credit market is opposite to the one in the formal market. The only exceptions are Mozambique, Tanzania, and Zambia where more males than females have access to informal credit. In South Africa, males and females have equal access to informal credit. The overall picture of access to credit shows that females are more excluded than males in Botswana (7%), Mauritius (7%), Mozambique (4%), Tanzania (7%), and Zambia (7%). There is no gender gap in access to credit in South Africa and Zimbabwe. Interestingly, Swaziland, the Democratic Republic of Congo, and Malawi have more males excluded than females. Lower exclusion of females is mainly driven by more females accessing credit from the informal sector in these countries.

Figure 9: Credit Strands by gender for each country



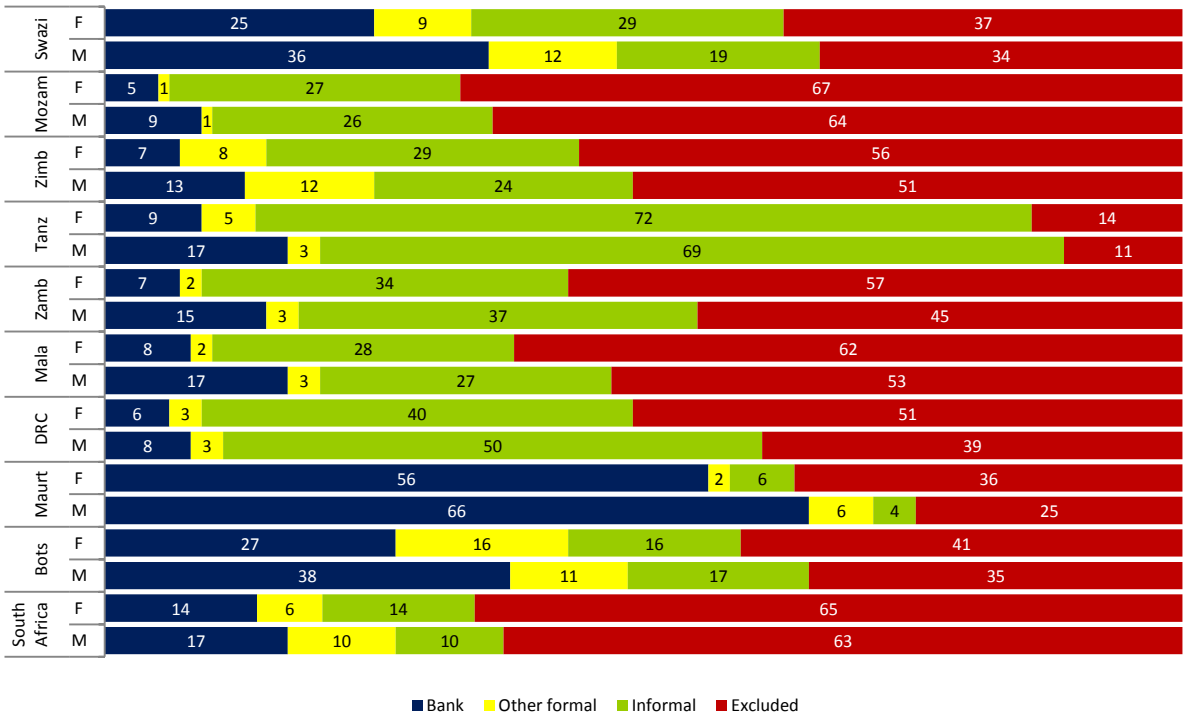
Source: FinScope

4.1.4. Savings by gender

The other dimension of examining gender disparity in financial inclusion is by looking at access to savings. Not surprisingly, the trend in gender gap persists in the saving market as well. As depicted in Figure 10, the gender gap is highest in Botswana (11%), Swaziland

(11%), and Mauritius (10%). The gap is narrower in the Democratic Republic of Congo (2%), South Africa (3%), and Mozambique (4%). The gap narrows in Botswana and Tanzania when we consider saving at both bank and non-bank financial institutions, implying that more females than males have access to non-bank financial institutions as a channel for saving. In contrast, the non-bank financial institutions seem to be used more by males than females in Mauritius, South Africa, Swaziland, and Zimbabwe where the gap widened further. Not surprisingly, females dominate the informal saving market in the countries except in Botswana, the Democratic Republic of Congo, and Zambia where more males than females use informal mechanisms for saving. Analysis of the exclusion trend across the countries shows that females are more excluded than males in all the countries. The largest gender gap in exclusion is observed in the Democratic Republic of Congo, Mauritius, and Zambia. Overall, our preliminary analysis of access to saving revealed that more females are excluded from the saving market and this remains unchanged even after accounting for informal saving channels in which more females are likely to participate. The fact that females are excluded from the saving market in all the countries is consistent with our report on barriers to account ownership in which more females cite lack of money as the primary reason.

Figure 10: Saving Strands by gender for each country



Source: FinScope

4.2. Gender and financial inclusion: Econometric analysis

In this section, the results of the econometric analysis are presented which is divided into descriptive statistics and the econometric model results.

4.2.1. Descriptive statistics and Chi-Square test results.

The descriptive statistics confirmed differences between males and females in terms of access to an account, borrowing, and saving. As reported in Table 3 in Appendix B, the gender gap in account ownership is significant. When we disaggregate the elements of access to account ownership it becomes clear that females own fewer bank accounts than men and the difference is significant. Similarly, formal account ownership is biased towards men. Comparison of access to borrowing shows that females have equal access to borrowing. However, females' access to credit both at a bank or non-bank financial institution is less than that of men and this is offset by more females accessing credit from the informal sector. The gender gap is also apparent from differences in access to saving between males and females. Females have less access to saving than males. They also have lower access to formal saving and this is not offset by a higher access to the informal market. In general, comparison of mean values of variables of financial inclusion for males and females show that females are excluded from the formal market and hence resort to the informal market as an alternative.

Differences also prevail in the mean value of the predictor variables that include household size, income, age, marital status, employment status, educational status, and place of residence. Most females live in households that are larger in size, earn less income, are younger, are divorced and are unmarried. Most of them are unemployed and have primary schooling.

4.2.2. Econometric model results

The results of the econometric analysis are presented in this section where the effect of gender on financial inclusion was analysed while keeping unchanged age, income, marital status, employment status, place of residence, and level of education. The econometric model is more robust in telling the true story about the effect of gender on financial

inclusion because it determines the relationship between the two while keeping all other factors that might affect financial inclusion unchanged.

Gender and financial inclusion*: gender and account ownership*

Our first analysis involved determining the effect of gender on account ownership where we have the variable 'have account' capturing those who have an account at any institution (i.e. bank, non-bank formal financial institution or informal financial service providers). As reported in Table 4 in Appendix B, gender does not have an effect on account ownership. Account ownership is rather affected by age, income, marital status, employment status, place of residence, and level of education. Age is found to have a positive effect on access. Income has a significant positive effect on access, and this is consistent with the fact that mostly the poor are financially excluded. Of the marital status categories, married people are found to have greater chance of access while no similar effect is observed for those who are single or divorced. The fact that marriage increases the chance of account ownership may be explained on the ground that married people have increased financial responsibility that leads to a higher demand for financial services. Employment is the other important factor that increases chance of account ownership. Employed people have 1.48 times more chance of account ownership than unemployed people. A positive and significant coefficient for urban suggests that account ownership is skewed towards urban dwellers, and at the flip side it suggests that most rural people are financially excluded. The coefficients for the level of education are all positive and increase as we move from primary schooling to post-secondary schooling. This implies that although those who have some schooling have higher chance of account ownership than those with no schooling, increases in the level of educational status significantly increases the chance of account ownership.

Analysis of bank account ownership and gender shows that gender enters the model negatively and significantly which implies that females have a lower chance of account ownership to a bank account. Bank account ownership is determined by age, income, marital status, employment status, place of residence, and the level of education. Income increases the chance of having an account at a bank. Analyses of categories of marital status show that married and singles have a higher chance of bank account ownership. The fact that rural people are excluded from the banking sector is revealed through a significant

positive coefficient for the variable 'urban'. The effect of level of education is clear from positive and significant coefficients that increase as one moves from primary to post-secondary education implying that increased level of education increases the chance of having a bank account.

Using formal account ownership (i.e., account at a bank and non-bank financial institution), we gain a different insight into determinants of access. Formal account ownership, like bank account ownership, is biased against females. Females are also excluded from the non-bank financial institutions as can be understood from a negative and significant coefficient for gender. This implies that factors that impede females' access to a bank account also hold when it comes to access to accounts at non-bank financial institutions. Both married and single females have a higher chance of having a formal account. Those living in urban areas also have a higher chance of having a formal account which shows that even the non-bank financial institutions are beyond the reach of people living rural areas. The importance of education for having formal accounts is evident from significant coefficients for the three levels of education that increases as we move upwards. Comparison of the second and third models, i.e., having a bank account and having a formal account, shows that variables except income that affect ownership of a bank account also affect ownership of account at non-bank financial institutions suggesting that these institutions can serve the low income groups of society had it not been for their location in urban centres.

We also analysed the relationship between gender and informal account ownership, and the econometric results are insightful. Gender has a statistically significant positive relationship with access to informal accounts suggesting that females are more likely to use informal financial service providers. This is consistent with our descriptive analysis which shows that most females have informal access. Despite a significant relationship with formal account ownership, age does not have a significant relationship with informal access. This suggests that the informal sector is accessible to the young as much as it is to the old. Not surprisingly, increase in income is negatively related to chance of having an informal account suggesting that the informal financial sector is accessed by low income groups. While marriage does not have a significant relationship with informal access, divorced and single females have less chance of having informal access. While employment

does not have an effect on informal access, unemployment increases it. A negative and significant coefficient for the variable 'Urban' means living in urban areas decreases the chance of informal access. While primary schooling increases the chance of informal access, attaining secondary and post-secondary schooling decreases it. This implies that those who have primary schooling have both formal and informal access. In general, those that have informal access can be described as females, low income groups, unemployed, rural dwellers, those having primary schooling or no schooling at all.

Gender and financial inclusion*: gender and access to credit*

As reported in Table 5 in Appendix B, gender is negatively and significantly related to access to credit which suggests that females have lesser access to credit than males. Age, income, employment status, place of residence, and level of education are the other important predictors of overall access. Increase in age is related to increased chance of access to credit and no non-linearity is observed suggesting that people have an increased chance of accessing credit even at older age. Increase in income is related to higher chance of accessing credit, employment does not boost the chance of access to credit, while unemployment decreases it. As is the case with account ownership, access to credit is also skewed to people living in urban areas. The role of education is evident from the positive and significant coefficients for the three levels of education, and the chance of accessing credit increases with increase in the level of education.

As shown in Table 5 in Appendix B, the coefficient for the variable 'gender' is negative and significant implying that females have a lower chance of accessing bank credit. Marital status affects access to credit in such a manner that the divorced have a lower likelihood of access to bank credit. Employment is a strong predictor of access to bank credit with the unemployed having a lower chance of access and the employed having higher chance of access. Employed people are twice more likely to have access to a bank credit than the unemployed. Bank credit is available to those living in urban areas suggesting that people living in rural areas are excluded from bank credit too. The level of education predicts access to bank credit in such a manner that having primary schooling is not related to access to bank credit while having secondary or post-secondary schooling increases it.

We also look at formal credit to see if non-bank financial institutions offer a different opportunity to females. As reported in Table 5 in Appendix B, the coefficient for gender is negatively and statistically significant suggesting that females are equally excluded from the non-bank credit market. We did not find any statistically significant relationship between marital status and access to formal credit. Employment status is a strong predictor of access in such a manner that while unemployment decreases the chance of access, employment increases it. While those living in urban areas have a higher chance of accessing formal credit, people in rural areas are less likely to access formal credit. Having primary schooling is found to have no effect on the chance of accessing formal credit but having secondary or post-secondary schooling is related to a higher chance of access to formal credit. Having a post-secondary education increases the chance of access to formal credit by more than four times. In general, the likelihood of accessing formal credit decreases for females, low income earners, those living in rural areas, the unemployed, and those with no schooling.

The model for informal credit shows that access to informal credit is gender neutral. In other words, there is no significant disparity between females and males in accessing informal credit. It is also clear from the outputs that age and marital status are not related to informal access. Not surprisingly, income is negatively and significantly related to informal access suggesting that increase in income decreases the chance of accessing informal credit. This is consistent with the outputs of the previous models in which we have shown income to be an important predictor of access to both bank and non-bank credit. The role of level of education on the likelihood of access to informal credit is such that only post-secondary schooling decreases the chance of access while both primary and secondary schooling have no significant relationship. This suggests that people with a primary and secondary schooling still rely on the informal market to satisfy their demand for credit.

Gender and financial inclusion*: gender and access to saving*

We also look at the relationship between gender and access to saving to see if the disparity in access between males and females is significant while controlling for other factors. As presented in Table 6 in Appendix B, gender is negatively and significantly related to access

to saving suggesting that females have a lower chance of access to saving. Age and access to saving are linearly related implying that an increase in age increases ones chance of access to saving without any threshold. Income is the other important predictor of access but no similar effect is observed for marital status variables. Employment increases one's chance of access to saving while no evidence could be generated for a decrease in the chance of saving associated with unemployment. Living in urban areas increases the likelihood of access. Education is found to be an important predictor of access to saving with the likelihood of saving increasing as the level of education increases.

In the second model, we analyse the role of gender on access to saving at a bank where we found that gender is negatively and significantly related to bank saving suggesting that females have a lower chance of saving at a bank. Age increases the chance of saving at a bank. As expected, income is among the factors that strongly predict access to saving at a bank. Among the categories for marital status, we find that being single is related to a lower chance of saving at a bank. As is the case with other dimensions of access, employed people have a better chance of saving at a bank. People living in urban areas are more likely to save at a bank than those living in rural areas. Educational level affects saving at a bank in such a manner that the likelihood of saving at a bank increases for those having secondary schooling and above. Primary schooling is found to have no relationship with saving at a bank.

Females also have a smaller chance of saving at non-bank formal institutions evidenced by a negative and significant coefficient. This suggests that forces that hinder females' access to saving at a bank also serve as a barrier to their access to non-bank formal saving. Age is found to have a positive effect on access to formal saving. Access to formal saving is largely determined by income. Marriage is not related to access to formal saving but singles and those divorced are found to have a lower chance of accessing formal saving. While unemployment decreases the chance of accessing formal saving, employment increases it significantly. Only secondary and post-secondary schooling are related to higher chance of accessing formal saving.

Analysis of predictors of informal saving shows that gender is positively and significantly related to the chance of accessing informal saving suggesting that females often resort to

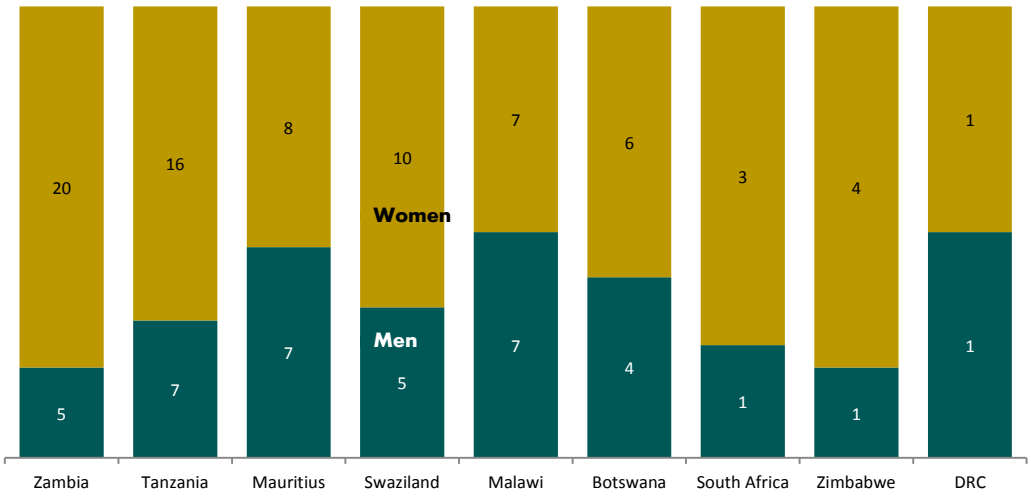
informal providers to satisfy their demand for saving. Surprisingly, increase in household size is related to a higher chance of saving informally. Increase in personal income is inversely related to the chance of accessing informal saving. While no relationship is found between unemployment and informal saving, employment decreases the likelihood of informal saving. Not surprisingly, living in urban areas decreases the chance of saving informally which suggests that such form of saving is typically for rural people. The level of education is related to access to informal saving in such a manner that those having primary schooling are more likely to access informal saving while secondary schooling and post-secondary schooling are related to a lower chance of accessing informal saving.

4.3. Barriers to financial inclusion of women

4.3.1. More females use someone else's account

A reason for females having lower bank account ownership is because some of them use somebody else's account. As presented in Figure 11, usage of somebody else's account varies across countries with Zambia (25%) at the top and South Africa (4%) at the bottom. Usage of somebody else's account is the highest in countries with the lowest bank account penetration and vice-versa, with the exception of Mauritius and the Democratic Republic of Congo. Proportionately, more females use someone else's account in all the countries except in Malawi and the Democratic Republic of Congo where the split is even. Usage of someone else's account is particularly common among women in Zambia, Tanzania, and Swaziland.

Figure 11: Usage of someone else's account by gender in each country



Source: FinScope

4.3.2. Barriers to account ownership by gender

We also analysed the top three barriers to account ownership and compared them across gender groups. Lack of money is the top most important reason for not having a bank account in all the countries. In fact, more females than males cite this as the primary reason for not having a bank account. For instance, 88 percent of females cite lack of money as the top most important reason for not having a bank account in Botswana compared to only 56 percent of males. Other factors that act as a barrier against account ownership of females are described below.

Women are less involved in household financial decision making

Female involvement in household financial decisions is the other important factor explaining lower level of financial inclusion. As shown in Table 2, proportionately fewer females are involved in household financial decisions which lead to lower level of demand for financial services. This was reported as a barrier by females in Mauritius and Zambia.

Table 2: Percentage of adult population making financial decisions alone

Country	Male	Female
Botswana	38.30	32.50
DRC	39.2%	21.5%
Malawi	39.0%	24.3%
Mauritius	32.0%	20.0%
Mozambique	26.0%	24.0%

Source: FinScope

Females have low financial literacy

Lower level of financial literacy among females is the other serious barrier to account ownership in many countries in the region. The literacy related barriers are mostly either attitudinal or awareness related. Awareness related barriers include lack of understanding about benefits of having a bank account, how banks work, the financial language they use or where and how to apply for a bank account. It also involves attitude related problems including females having a feeling that bank accounts are not for people like them. Financial literacy related problems inhibit female ownership of bank accounts in Botswana, Democratic Republic of Congo, Malawi, Mauritius, Mozambique, Swaziland, Tanzania and Zimbabwe.

More females are not able to maintain minimum balance for opening a bank account

The minimum balance required to open a bank account can act as a barrier especially when it is relatively high compared to average income of people in lower income categories. This can also explain lower bank account ownership among females. In Mauritius, Zambia, Tanzania, and Zimbabwe, females report inability to maintain the minimum balance as a barrier.

More females cite remoteness of a bank branch

Bank branch penetration often varies from country-to-country and proportionately more branches are located in urban centres leading to higher level of exclusion of people in the rural areas. Females in rural areas often cite remoteness of bank branches as a barrier, and this is the case in Zambia and Tanzania.

More females prefer informal providers to banks

Relatively more females report that they can obtain financial services from elsewhere in the community. This implies that women have a higher propensity towards using informal financial services which is consistent with our analysis in an earlier section of the report that, more females than males are informally served.

Conclusions, recommendations and policy considerations

Access to financial services such as savings, credit and insurance enables individuals to store value in a safe place, receive and transfer value, and manage liquidity and risk. However, more females are excluded from financial services and this leads to their exclusion from social and economic activities. Financial exclusion of females means that their potential contribution to economic growth is lost. This paper documents the gender gap in financial inclusion in the SADC region in access to accounts, savings and credit using FinScope Consumer survey data for ten countries in the region.

Our preliminary analysis shows that the gender gap in bank account ownership is the highest in Botswana, Swaziland, and Mauritius while South Africa is the only country with a positive gender gap, i.e. females having more access than males mainly driven by most females receiving social grants through a SASSA card. However, the gap in the region narrows significantly when we consider account ownership at non-bank formal financial institutions implying that these institutions serve as alternative routes when banks are

inaccessible. Females have more access to informal finance accounts except in Zimbabwe where males have more access and in Botswana where both males and females have equal access.

Most of the preliminary findings were confirmed through comparison of mean values that shows a significant gender gap in account ownership, saving and credit. Significant differences were observed between males and females in income, age, employment status, and level of education.

The results of our econometric analysis shows that gender affects financial inclusion even after controlling for individual characteristics suggesting existence of gender biases in the region. Income, level of employment, place of residence and level of education were found to have a strong effect on financial inclusion. Employed people have better access to bank accounts, credit and savings irrespective of their gender, level of education and income which implies that employment per se increases account ownership due to people's ability to earn a regular income. Secondary and post-secondary schooling are strongly linked to better access to financial services compared to primary schooling. Based on the foregoing conclusions, we forward the following recommendations which in our view would help in closing the gender gap in financial inclusion in the Region.

- **Promoting financial literacy through financial education**: Financial education programs targeted at females will enable them to develop a reasonable understanding about the language used by banks, benefits of owning a bank account, and how to apply for it. Such programs should also enable females to develop skills in household financial management that leads to their empowerment and increased involvement in household financial decisions.
- **Introducing agency banking in rural areas:** Agency banking will help females in the rural area that are excluded from owning a bank account due to remoteness of bank branches.
- **Strengthening informal financial service providers to expand outreach of financial services to females in rural areas:** Accessibility of informal financial service providers and their ability to design products that suits the needs of individuals makes them ideal for many females in the region. However, informal operators may not have the technical

know-how of managing financial services and may also lack resources to satisfy the needs of all their clients. Building the financial and managerial capacity of the informal financiers may allow majority of rural females to obtain quality financial services at a cheaper cost.

- **Mitigating risks in the informal sector:** While the informal sector supports female access to financial services, there are always the risks of exploitation. Safety nets need to be provided through appropriate consumer protection measures.
- **Income generating capability to improve financial inclusion and address gender disparity**: Both the descriptive and econometric analyses point to the fact that financial inclusion is strongly linked with income generating capability. With women facing wider exclusion it is important to also address the issue of gender equality in economic activities.

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Appendix A

The binary logistic regression model used in which the probability of financial inclusion is described by the following function:

$$\pi_i = \frac{e^{z_i}}{1+e^{z_i}} \text{ or } z_i = \log\left(\frac{\pi_i}{1-\pi_i}\right) \quad \text{.....(1)}$$

Where

π_i is the probability the ith person is financially included.

z_i is the value of the unobserved variable for the ith person.

The logistic regression model assumes that z is linearly related to the predictors

$$z_i = b_0 + b_1 x_{i1} + b_2 x_{i2} + \ldots + b_p x_{ip} \quad \text{.....(2)}$$

Where

x_{ij} is the jth predictor for the ith person that include gender, household size, income, age, place of residence, level of education, marital status, and employment status.

b_j is the jth coefficient

p is the number of predictors

The dependent variable in each model is dichotomous taking the values 1 or 0. In the first model, respondents who have a bank account are assigned the value 1 and 0 otherwise. In the second model, those who save at a financial institution are assigned 1 and 0 otherwise. In the third model, those who accessed credit are assigned 1 and 0 otherwise.

Appendix B

Table 3: Summary statistics of independent variables by gender

The variables Household size and age are found to be non-normally distributed but with equal variance for men and women. Therefore, we used Mann-Whitney U Test, a non-parametric test, to check difference in the mean value of the variables for the two groups. For categorical variables, we used Chi-square test and statistical significance is reported using asterisks in the last column of the table.

Variable	Description	Female	Male	Significance
Have Account	**Have an account**	**0.66**	**0.7**	********
Account@Bank	Have a bank account	0.33	0.4	***
Account@Formal	Have account at a bank or non-bank financial institution	0.52	0.59	***
Account@Informal	Have account at informal financial service provider	0.14	0.11	***
Borrowed	**Borrowed from somewhere**	**0.36**	**0.36**	**-**
Bank Credit	Borrowed from a bank	0.08	0.12	***
Formal Credit	Borrowed from a bank or non-bank financial institution	0.16	0.2	***
Informal Credit	Borrowed from an informal financial service provider	0.18	0.14	***
Saved	**Saved somewhere**	**0.52**	**0.56**	*******
Saved@Bank	Saved at a bank	0.19	0.24	***
Saved@Formal	Saved at a bank or non-bank financial institutions	0.24	0.31	***

Saved@Informal	Saved at an informal financial service provider	0.26	0.24	***
Household size	Household size	4.64	4.48	***
Income	Income of the respondent	1.39	1.6	***
Age	Age of the respondent	38.04	39.78	***
Divorced	A person is divorced	0.07	0.03	***
Married	A person is married	0.63	0.67	***
Single	A person never married	0.28	0.37	***
Unemployed	A person is jobless	0.63	0.55	***
Employed	A person is employed	0.34	0.42	***
Urban	A person lives in urban area	0.43	0.4	***
Primary	A person has primary education	0.4	0.34	***
Secondary	A person has secondary education	0.4	0.46	***
Post-secondary	A person has post-secondary education	0.08	0.12	***

Note: *** *significant at 1% level,*

Table 4: Logistic regression output: gender and account ownership

Variables	Have account	Have bank account	Have formal account	Have informal account
Gender	-0.01	-0.151***	-0.192***	0.266***
HHSize	-0.005	.000	-0.005	0.0050
Age	0.064***	0.069***	0.063***	0.0100
Age squared	-0.001***	-0.001***	-0.001***	0.0000
Personal Monthly Income	0.624***	0.974***	0.000	-0.355***
Divorced	-0.039	0.008	0.099	-0.23**
Married	0.175***	0.196***	0.136***	0.016
Single	-0.036	0.205***	0.211***	-0.384***
Unemployed	-0.112	-0.186**	-0.202**	0.226*
Employed	0.39***	0.557***	0.355***	0.1
Urban	0.770***	0.725***	1.055***	-0.375***
Primary schooling	0.416***	0.422***	0.485***	0.1200*
Secondary schooling	1.039***	1.301***	1.328***	-0.1400**
Post-secondary schooling	2.131***	2.759***	2.723***	-1.4700***
Constant	-2.006***	-5.564***	-2.929***	-2.085***
Country fixed effect	YES	YES	YES	YES
N	23,825	23,825	23,825	23,825

Variables	Have account	Have bank account	Have formal account	Have informal account
Cox & Snell R^2	0.184	0.281	0.286	0.057
Negelkerke R^2	0.253	0.407	0.381	0.098

Note: **** significant at 1% level, ** significant at 5% level, *** significant at 10% level.*

Binary logistic regression estimation coefficients are reported.

Table 5: Logistic regression output: gender and access to credit

Variables	Have credit	Have bank credit	Have formal credit	Have informal credit
Gender	-0.132**	-0.234**	-0.215***	0.05
HHSize	-0.002	0.017	0.025	0.000
Age	0.04***	0.089***	0.085***	0.005
Age squared	0.000	-0.001***	-0.001***	0.000
Personal monthly income	0.368***	1.247	0.856***	-0.123*
Divorced	-0.035	-0.36***	-0.222	0.03
Married	0.083	0.217	0.101	-0.024
Single	-0.089	0.125	-0.013	-0.12
Unemployed	-0.289***	-0.442*	-0.541***	-0.058
Employed	0.027	0.733***	0.372***	-0.383***
Urban	0.183***	0.607***	0.313***	0.002
Primary schooling	0.286**	0.034	0.268	0.151
Secondary schooling	0.374***	0.527**	0.640***	0.111
Post-secondary schooling	0.786***	1.445***	1.547***	-0.625***
Country fixed effect	YES	YES	YES	YES
Constant	-1.848	-8.683***	-5.733***	-.660**
Country fixed effect	YES	YES	YES	YES
N	11,569	13,142	13,142	11,569
Cox & Snell R^2	0.373	0.104	0.123	0.264
Negelkerke R^2	0.530	0.354	0.300	0.409

Note: **** significant at 1% level, ** significant at 5% level, *** significant at 10% level.*

Binary logistic regression estimation coefficients are reported.

Table 6: Logistic regression output: gender and access to savings

Variables	Have a saving	Saving at a bank	Have formal saving	Have informal saving
Gender	-0.082*	-0.215***	-0.266***	0.118***
HHSize	-0.003	0.012	0.001	0.017**
Age	0.042***	0.05***	0.06***	-0.001
Age Squared	0.0000	0.0000	0.0000	0.0000
Personal monthly income	0.547***	0.978***	0.999***	-0.068**
Divorced	0.014	-0.17	-0.271*	0.108
Married	0.058	-0.014	-0.088	0.023
Single	-0.113	-0.198*	-0.199**	-0.057
Unemployed	-0.003	-0.034	-0.241**	0.086
Employed	0.399***	0.582***	0.554***	-0.174**
Urban	0.229***	0.491***	0.464***	-0.149***
Primary schooling	0.338***	0.16	0.168	0.259***
Secondary schooling	0.593***	0.889***	0.936***	-0.227***
Post-secondary schooling	0.940***	1.759***	1.961***	-0.55***
Country fixed effect	YES	YES	YES	YES
Constant	-2.33***	-6.134***	-5.201***	-1.047***
Country fixed effect	YES	YES	YES	YES
N	12,196	13,142	13,142	12,196
Cox & Snell R^2	.250	0.179	0.247	0.065
Negelkerke R^2	.336	0.327	0.391	0.089

Note: **** significant at 1% level, ** significant at 5% level, *** significant at 10% level.*

Binary logistic regression estimation coefficients are reported.