
Influence of Demographic Factors on Financial Exclusion in Zimbabwe: An Empirical Analysis

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Abstract: Financial exclusion is becoming a major concern for policy makers and national governments over the world. The aim of this research is to discover the main demographic factors that significantly impact on financial exclusion. In order to achieve this objective, a Chi-Square Test of Association was employed on categorical demographic factors. Further a Logit Model was used to determine the statistical significance of the demographic factors on the dependant variable. In this regard, the following variables were of interest: age, income level, gender, educational level and employment status. This study was restricted to Masvingo District in the Masvingo Province of Zimbabwe. The research, which was largely quantitative in nature saw face to face interviews being carried out on 317 respondents out of the targeted 350 respondents. Results were analyzed and revealed that of the demographic factors under study only income was found not to be statistically significant in impacting on the level of financial exclusion. The study recommends that the Reserve Bank of Zimbabwe (RBZ) carries out education and awareness programmes on financial literacy among the general populace thus building financial capability.

Keywords: Financial exclusion; Financial inclusion; Demographic factors; Economic growth; Dollarization

JEL Classifications: N60, E44, J61

1. Introduction

High levels of financial exclusion in Africa and Zimbabwe included presents a biggest key threat to sustainable economic growth and poverty reduction in Zimbabwe (Monetary Policy, January, 2016). The statistics from Zimbabwe's 2014 Fin Scope survey on financial exclusion shows that 40% of Zimbabweans are financially excluded (i.e. do not use financial products – neither formal nor informal – to manage their financial lives), 22% rely only on informal financial products or services, 38% of Zimbabweans are formally served (24% have/use bank products/services and 14% have/use non-bank formal products/services but not commercial banking products). Lack of access to affordable financial services both by the rural and urban areas cripple the ability of the large segment of marginalized groups (such as youth, women) households to be excluded in accessing financial services that are necessary for them to be involved in productive activities such as agricultural activities. On the other hand, high levels of financial exclusion

undermines financial inter mediation and the ability of the government to tap into resources which are circulating in the informal sector and this compromise the mobilization of resources to be used in sustaining economic growth.

A mere analysis of several studies that have been done on financial exclusion reveals generic demand side and supply side factors which tend to derail efforts to counteract the financial exclusion. One of the set of factors which have been highly revealed by so many studies includes demographic factors and their influence on financial exclusion. For example, high levels of education are found in most of the studies to positively correlates financial inclusion and low income levels tend to reduce the opportunities for individuals to use access financial services (Rama and Rupayan 2012; Krishnakumar and Vijayakumar, 2013). However, with such generalized findings, Zimbabwe seems to portray a different story for policy advice. For example, Zimbabwe records high levels of education but with low levels of financial exclusion. Given, earlier mentioned empirical arguments, it is expected that the high educational outcomes should contribute to somewhat improved people's ability access and use financial services. This alone justifies the need to further interrogate the role played by demographic factors such as level of education of individuals. Given lack of clear insights, policy makers are confronted with a key challenge to mainstream demand side factors to improve policy targeting financial exclusion in Zimbabwe.

The Reserve bank of Zimbabwe has in its Monetary policy recommended the promotion of financial inclusivity and proper functioning of financial sector as an key ingredient to foster economic transformation in Zimbabwe. In its recent Monetary policy (January, 2016), the RBZ affirms this policy direction by further indicating that targeting to improve financial inclusion in Zimbabwe should be done on the basis of demographic aspects of the population of Zimbabwe and this includes gender. To promote financial inclusivity, there is need to invest more resources in rethinking how demand side factors such as demographic factors are complementing and impeding financial exclusion in Zimbabwe for new policy insights. Hence, this study attempts to fill this gap by exploring the relationship between demographic factors and financial exclusion in Zimbabwe.

2. Literature Review

2.1 Financial exclusion

Geographers in 1993 became very much concerned about the limited physical access to banking services as a result of bank branch closures, hence the advent of financial exclusion, Leyshon and Thrift (1993). In 1999, the term financial exclusion gained prominence and was referred to people who had limited access to mainstream financial services (Kempson and Whyley, 1999).

In the subsequent years, researches were carried out to ascertain the extent of the challenges being faced by some sections of the society in having difficulties in accessing financial services, Anderloni (2003), Anderloni and Carluccio (2006), Devlin (2005), Lammermann (2010), Connolly (2014). The general consensus was that financial exclusion exists where individuals lack access to appropriate and affordable financial services and products. The primary services and products being a transaction account, general insurance and a moderate amount of credit, Connolly (2014).

2.2 Demographic factors on financial exclusion

2.2.1 Age

Financial exclusion affects some age groups more than the others (Lammermann, 2010). Generally speaking, the aged (65+) and the young (18-25) are at greater risk of being excluded.

Chief among the reasons being that, at that age they will not be economically active and most will not be in formal employment. In a study carried out in Australia to determine the degree of financial exclusion, a large number of young people were financially excluded as well as the aged (Collonny, 2014). In another study carried out in Uganda to determine the influence of age on financial exclusion, the 25-34 and 35-44 age groups were found to be more formally included than the 18-24 age group. The results also showed that those above 55 years of age had high chances of being financially excluded because of their inability to learn banking practises, Johnson and Nino-Zarauza (2007).

2.2.2 Income

Studies have shown that people with low income are more likely to be financially excluded than those in the high income bracket. According to Lammermann (2010), households with no wage earner were at the risk of being completely financially excluded. Johnson and Nino-Zarauza (2007) and Munyanyi (2014) revealed that a person's income was the most important factor in determining financial exclusion. In their findings, people that depend on pensions and transfers were more likely to be excluded than entrepreneurs who run their businesses. Farm labourers and domestic workers were found to be more than twice likely to be excluded while those formally employed were found to be twice likely to be financially included. These studies showed that there was a positive correlation between income and financial inclusion. The higher the income the lower the incidence of financial exclusion, (Munyanyi 2014; Collonny, 2014). Thus income is an important factor in determining access to financial services and products, although, (Collonny, 2014) found out that it comes in handy when accessing credit. An interesting finding though by (Collonny, 2014) was that a very high number of those in employment were found to be financially excluded.

2.2.3 Educational Level

Education is one of the most important demographic factors on financial exclusion. In a study carried out in Beitbridge, Zimbabwe by Munyanyi (2014), education was found to increase the likelihood of getting a better job and the chances of high income. Therefore those that are less educated were at the mercy of being financially excluded and their chances of earning high income were low. Johnson and Nino-Zarauza (2007) revealed that, having a secondary education was one of the strongest positive factors associated with use of formal sector services, and those having it are eight times more likely to use them compared to those having no education. Having a primary education only doubles the likelihood of being financially excluded. On the contrary, (Collonny, 2014) found out that in Australia, educational level had a relatively even spread among financially excluded individuals.

2.2.4 Gender

In most developing countries, Zimbabwe included, and the rest of Africa, statistics have favoured men than women in accessing financial services, Demirgüç-Kunt and Klapper (2012). Thus gender has an impact on financial exclusion. Johnson and Nino-Zarauza (2007) noted that women are more likely to be included via the informal sector. Overallly, gender was found to be insignificant in determining access to financial services and products. The results were shared by (Collonny, 2014), who found out that gender was evenly spread among financially excluded individuals.

2.2.5 Employment Status

With regards to employment status, Lammermann (2010) asserted that students and the unemployed were most likely to be excluded. Munyanyi (2014) also revealed that occupation plays an important role in determining access to financial services and products. Employment status was found to be closely linked to income. Collonny (2014) found out that having work is not always the path to financial inclusion.

3. Methodology

This study focused on the association between financial exclusion and demographic factors that affect financial exclusion. In order to achieve this objective, a Chi-Square Test of Association was employed on categorical demographic factors. Categorical demographic factors include gender, educational level and employment status. Age and Income level were not categorised. Further a Logit Model was used to determine the statistical significance of the demographic factors on the dependant variable. In this regard the following variables are of interest; age, income level, gender, educational level and employment status. It follows that the estimated Logit Model equation:

$$FinEx = f(\text{Age, Income, Gender, Education, Employment Status}) \quad (1)$$

Using the Logit Model the following equation is estimated:

$$FinEx = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e \quad (2)$$

Where: β_0 = is the intercept (constant); $FinEx$ = Financial Exclusion;

X_1 = Age, X_2 = Income, X_3 = Gender, X_4 = Educational level, X_5 = Employment status, e = error term

All the data for this study was obtained from primary sources. A target population of 350 marginalised populations in Masvingo District, comprising the youth, women, informal traders and farm labourers was used. Of the 350 face to face interviews targeted, the researcher managed to carry out 317 interviews, representing a 91% response rate. Both Purposive and Convenience sampling procedures were employed. Stata and Excel were used in the analysis of the data, computations and interpretation of results. Data was thus presented in the form of frequency tables and models.

4. Results and Analysis

The results below show the level of financial exclusion.

Table 1. Degree of financial exclusion

Financial Exclusion	Frequency	Percent (%)	Cumulative(%)
Fully excluded (0)	108	34.07	34.07
Marginally excluded (1)	209	65.93	100.00
Total	317	100.00	

Table 1 above shows the level of financial exclusion. It shows that 34.07% of the respondents were fully excluded while 65.93% were marginally excluded. The results are almost similar to the findings by The FinScope Zimbabwe Survey of 2014 that 40% of Zimbabwean adults are fully excluded. A value of zero and one were assigned to fully excluded and marginally excluded respectively. Fully excluded respondents were taken as those individuals who do not have access to basic financial products and services such as a bank account, general insurance and access to loans. Marginally excluded respondents were those that had access to at most two of the three basic financial services and products.

4.1 The relationship between gender and financial exclusion

H₀: There is no relationship between gender and financial exclusion.

H₁: There is a relationship between gender and financial exclusion.

Table 2. Relationship between gender and financial exclusion

Financial Exclusion	Gender		Total
	Female (0)	Male (1)	
Fully excluded (0)	69	39	108
Marginally excluded (1)	101	108	209
Total	170	147	317
Pearson chi-square $\chi^2 = 6.9355$		Pr = 0.008	

From the above Table 2, the p value of 0.008 is achieved and is less than 0.05. This shows that at the 5% level of testing the null hypothesis is rejected and we conclude that there is enough statistical evidence to show that there is an association between gender and financial exclusion in Zimbabwe. The values of zero and one were assigned to female and male respectively. The table reveals that more women (54%) were financially excluded than men (46%), which results are in tandem with the findings of Allan *et al.* (2014). The table also reveals that 63.8% the women are fully excluded as compared to males with 36.2%. Surprisingly more men (51.6%) were found to be marginally excluded than women. The major reason could be that Non-Governmental Organizations promote women through various initiatives and cooperatives. Examples of such include Fushaimari.

4.2 The relationship between employment status and financial exclusion

H₀: There is no relationship between employment status and financial exclusion.

H₁: There is a relationship between employment status and financial exclusion

Table 3. Relationship between employment status and financial exclusion

Financial Exclusion	Employment Status			Total
	Retired and unemployed (0)	Informally employed (1)	Formally employed (2)	
Fully excluded (0)	52	52	4	108
Marginally excluded (1)	57	116	36	209
Total	109	168	40	317
Pearson chi-square $\chi^2 = 20.0676$			Pr = 0.000	

The chi-square test output in Table 3, 0.000, is less than 0.01. The null hypothesis is thus rejected at the 1% level of significance and the alternative hypothesis is accepted and we conclude that, there is an association between employment status and the degree of financial exclusion. On the employment status, a value of zero was assigned to retired and not working, one was assigned to those working informally and a value of two to those formally employed. Results indicate that of the fully excluded 96% were either retired or informally employed while 2% were those in formal employment. The reason for the 2% rate could be explained by the fact that those that are formally employed receive their salaries from the banks and are thus required to have bank accounts. The table also shows that 17.2% of the formally employed were marginally excluded. The reason could be that the state of the economy of Zimbabwe does not allow for those that are formally employed to have access to the three essential financial products and services.

4.3 The relationship between educational level and financial exclusion

H₀: There is no relationship between educational level and financial exclusion.

H₁: There is a relationship between educational level and financial exclusion

Table 4. Relationship between educational level and financial exclusion

Financial Exclusion	Educational Level				Total
	No formal education (0)	Primary/Secondary education (1)	Diploma (2)	Degree (3)	
Fully excluded (0)	22	47	28	11	108
Marginally excluded (1)	7	52	100	50	209
Total	29	99	128	61	317
Pearson chi-square $\chi^2=45.9281$			Pr = 0.000		

A significance level of 0.000 has been achieved, where $p < 0.05$. This means the chi-square test is showing a systematic association between the above two variables even at 95% confidence level. The null hypothesis is thus rejected and alternative hypothesis is accepted and we conclude that at 95% confidence level, there is an association between educational level and financial exclusion. Values of 0, 1, 2 and 3 were assigned to no formal education, primary/secondary education, diploma, and degree, respectively.

4.4 Interpretation of logit regression results

Table 5. Logit regression results

Financial Exclusion	Coefficient	Standard Error	z	p- value	95% Confidence Interval	
Gender	0.7228543	0.2776578	2.60	0.009	0.1786551	1.2677054
Education	0.8431935	0.1662057	5.07	0.000	0.5174362	1.168951
Age	-0.039767	0.0120247	-3.31	0.001	-0.0633349	-0.0169199
Income	0.0027761	0.0016657	1.67	0.096	-0.0004885	0.0060408
Employment	0.7771413	0.2361767	3.29	0.001	0.3142435	1.240039
Constant	0.027799	0.6613474	0.04	0.966	-1.268418	1.324016

4.4.1 Gender

The co-efficient of variable, gender has a p value of 0.009. At 5% level of testing, p is less than 0.05. This shows that the co-efficient of gender is statistically significant at 5%. The results indicate that gender is an important factor influencing financial exclusion among the respondents. The sign of the co-efficient indicates that there is a positive relationship between gender and financial exclusion. The p value, 0.009 shows that being a man increases the probability of financial exclusion by 0.9%. The results are similar to Demirgüç-Kuntand Klapper (2012) and Allan *et al.* (2014) that in many economies more men have access to the formal financial sector than women. The results also resonate well with Krishnakumar and Vijayakumar (2013) findings that gender has a relationship with financial exclusion. The findings however contradict Collonolly (2014) findings in Australia that gender was not a factor in determining financial exclusion as the distribution was evenly spread.

4.4.2 Education of respondent

At the 5% level of significance, the p value for the level of education variable is significant since it is less than 0.05. This shows that the level of education is an important factor when it comes to determining the level of financial exclusion. The sign of the coefficient shows that there is a positive relationship between the level of education and financial exclusion. The results confirm the findings of Munyanyi (2014) and Krishnakumar and Vijayakumar (2013) that the level of education was significant in financial exclusion. In Australia the level of education was found to be

evenly spread, (Collonnolly, 2014). The results could be also explained by the evidence from empirical literature that better schooling or education of the household head has a potential to improve understanding and appreciation of benefits of financial inclusion. The results show that as education level increases, the higher chances of seeking financial products and services.

4.4.3 Age of respondent

The p value of the co-efficient is 0.001 and at 5% level of significance, the co-efficient is statistically significant to show that age explains financial exclusion status. The sign of the co-efficient is negative to show that as age increases, the level of financial exclusion decreases. As age increases by one year, the probability of someone being fully excluded increases by 0.1%. This serves to confirm that age has an impact on financial exclusion in Zimbabwe. The elderly and the young adults are thus at the risk of being financially excluded. The aged, who are not technologically savvy as compared to the youth are more likely to be financially excluded. These age groups tend to be economically inactive and hence their levels of income are low.

4.4.4 Employment status

At the 5% level of significance, the p value for employment status is significant since it is less than 0.05. This shows that employment status is an important factor in determining the level of financial exclusion. The results are in tandem with Munyanyi (2014), Collonnolly (2014), and Krishnakumar R and Vijayakumar L. (2013) findings that employment status influences the degree of financial exclusion. In Zimbabwe, unemployment levels are high and thus most able bodied people are excluded from the financial system.

4.4.5 Income

The co-efficient of variable, income has a p value of 0.096. At 5% level of testing, p is greater than 0.05. This shows that the co-efficient of income is not statistically significant at 5%. The results indicate that income is not an important factor in influencing financial exclusion among the respondents. The results are similar to Collonnolly (2014)'s findings that income level was not an important factor in determining financial exclusion. The findings however contradicts those findings of Demirgüç-Kuntand (2012), and Krishnakumar and Vijayakumar (2013) that income was a factor in determining financial exclusion. The major reason why income may not be a significant factor maybe self-exclusion and high bank charges as alluded to by Marime and Chakazamba (2016).

5. Conclusions and Recommendations

This study explored the relationship between demographic factors and financial exclusion in Zimbabwe. Age, educational level, gender and employment status were found to be major demographic factors influencing exclusion. The results of the study showed that income level does not impact on the degree of financial exclusion. The researchers therefore came to a conclusion that self-exclusion and high bank charges were major reasons why high income earners were financially excluded.

Based on the research findings and conclusions above, the following are recommended to all stakeholders involved:

- Reserve Bank of Zimbabwe (RBZ) to carry out education and awareness programmes on financial literacy among the general populace thus building financial capability. This in turn enables individuals to identify and use appropriate financial products and services in order to build and preserve their assets overtime. Furthermore the Ministry of Finance in

conjunction with the Ministries of Education incorporates programs into the school and college curricula that seeks to improve financial literacy in the country

- RBZ to encourage banks through the Bankers Association of Zimbabwe to provide low cost bank accounts and to remove account opening stringents.
- The Government to provide funds to nonprofit organizations conducting financial education programmes that brings the provision of financial services to low income people.
- Government to fund and commission research projects to investigate the causes of financial exclusion and recommending measures to combat them.
- Government to encourage MFIs initiatives and provide funding for advice and counselling services
- Government to include Financial inclusion/exclusion in National strategic reports.

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