Determinants of access to financialservices Among Adults in Tanzania: The Evidence fromFinScope Tanzania Survey 2017

Abstract

There is low financial inclusion across developing countries, especially those in Sub-Saharan Africa (SSA) including Tanzania. Almost three quarter of the SSA citizens don't hold any form of account with a formal financial institution. East African countries have poor access to financial services especially the highly populated rural areas. The study examined the determinants of access to financial inclusion among adults in Tanzania. The study used a longitudinal research design to access data collected from 9459 respondents who were selected fromthe FinScope Tanzania 2017 which were weighted by NBS. Data were analyzed using both descriptive and Binary Logistic Model as inferential statistics with aid of STATA version 16.The study was able to find out that individual savings as a key determinant to financial inclusion was relatively low this being due to income gap, education and access to technology. Most of the respondents were willing to save but many-faced constraints to save.finally, the determinants of access to financial services in Tanzania among adults was identified to be age, education level and income. The study concluded that financial inclusion (access to financial services) among adults in Tanzania was mainly determined by age, education and income. Therefore, the effort should be made by the government to stimulate technological adoption so as to enhance variety of service delivery mechanism and provide financial knowledge to the society to inform people to make proper decisions regarding their financial well-being.

Keywords: Financial Inclusion, Adult, Determinants and Tanzania

1.0 Introduction

Financial inclusion has been broadly recognized as critical in reducing poverty and achieving economic growth. When people participate in the financial system, they are better able to start and expand businesses, invest in education, manage risk, and absorb financial shocks (The Global Findex, 2014). Well-functioning financial systems serve a vital purpose by offering savings which helps households manage cash flows, finance micro businesses and this enables owners invest in assets and grow their businesses, making day to day transactions including money transfer, mitigating shocks and managing expenses related to unexpected events such as natural disasters. Allowing broad access to financial services, without price or non-price barriers to their use is likely to benefit poor people and other disadvantaged groups through better access to credit which enables them to pull themselves out of poverty (Asli and Klapper, 2012, Consultative Group to Assist the Poor report, 2015).

Financial inclusion has been hailed as an enabler of seven of the seventeen sustainable development goals. Since 2010, over 55 countries had committed to having a national strategy geared towards financial inclusion. Countries have taken bold steps such as Mexico where a presidential decree was issued to form a council whose mandate is to organize different stakeholders working towards financial inclusion in the country. Colombia on the other hand brought together different ministries to form the Financial Inclusion Committee to supervise

efforts by the organ created to promote access to financial services for the unbanked of Colombia(Karpowicz, 2014)

Africa has the lowest levels of financial inclusion globally, with Chad and Burkina Faso having the lowest rates of bank account penetration. Almost 80% of the adult population in the continent does not have access to formal banking services (World Bank, 2014). In Sub-Saharan Africa (SSA), around 75% of adults do not have an account with a formal financial institution (World Bank, 2014). Economic progress in Sub-Saharan Africa has been hampered by low financial inclusion (FI) (Chikalipah, 2017). The only solution that permits widespread access to financial services is an inclusive financial system (Franklin, 2016). When inclusive financial structures are absent, those who are less fortunate must rely on their own meagre funds to fund their studies or launch their own businesses.

When compared to other developing economies, the financial systems of many African nations remain underdeveloped (Dupas and Jonathan, 2013). Africa has the lowest levels of financial inclusion globally, with Chad and Burkina Faso having the lowest rates of bank account penetration. Almost 80% of the adult population in the continent does not have access to formal banking services (World Bank, 2014).

In Sub-Saharan Africa (SSA), around 75% of adults do not have an account with a formal financial institution (World Bank, 2014). In SSA, a significant barrier to economic growth has been the low level of financial inclusion (FI). The only solution that permits widespread access to financial services is an inclusive financial system (Franklin, 2016).

When inclusive financial structures are absent, those who are less fortunate must rely on their own meager funds to fund their studies or launch their own businesses. Persistent economic disparity can be partially attributed to financial exclusion (Ravallion, 2014). Similar to SSA, financial services are not widely accessible in East African nations, particularly for the vast majority of people who live in rural regions (Raphael, 2013).

According toFinScope(2023) the Tanzanian financial sector grew at an average of 13% during the past three years in terms of assets. The supportive legal and regulatory framework, conducive macro-economic environment and innovation in digital finance platforms contributed to this growth. The sector is dominated by the banking sub sector, which contributes about 70% of the total assets, while insurance, pensions and securities account for the remaining 30% (NFIF, 2018). This has been due to the good financial environment which allows both regulated and non-regulated players to access the market. There exist 67 banks (mostly private owned), 813 branches, 5814 bank agents and two credit referencing bureaus while in mainland Tanzania there is 5640 SACCOS and 231 Zanzibar. The non-regulated players such as MFIs and moneylenders are mostly difficult to track and acknowledge but all mostly privately owned(Di Bella, 2011).

For example, in Tanzania one in six adults has access to financial services despite the increase in financial institutions. A study conducted by FinScope in 2017 show that 66% adults are within financial range, but still aren't accessing financial services; reasons such as documentation among Tanzanians is a major issue while only 63% of adults' own mobile phones. Nonetheless, there is a limited knowledge on determinants of financial inclusion. Thus, this study examined the determinants of access to financial services among adults in Tanzania.

2.0 Data and Methods

2.1 Data

The study used a longitudinal research design whereby quantitative and qualitative were used as types of data and secondary source of data were used to access data data collected from 9459 respondents who were selected from the Fin Scope surveys of 2017

2.2 Methods

2.2.1 Logistic Regression Model

Binary logit regression was employed to estimate the determinants of **access** to financialservices Among Adults in Tanzania. The model was adopted because the accessto financialservices as the dependents variable (Y) is binary in nature.

The adult access to financial services was analysed from Binary Logistic Model as follows:

Logit $(Y_i) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \varepsilon_i$

Where by:

Y_i is the probability of adults to access financial Services

β_0 is the constant term

$\beta_{i\,(1-6)}$ is the coefficient of independent variable.

Yi= adults to access financial Services defined as dependent variable (1=Has access to financial ServicesorO = otherwise)

X1 = Age

X2 = Sex

X3 = Marital status

X4= Education level

X5= Technology

X6= Distance from home to financial institution (Km)

X7 = Income

ε is the error term

Table 1: Operationalization of variables

Variable	Denotation	Measurement scale	Indicator
Age	*age*	Continuous	Years

Variable	Denotation	Measurement scale	Indicator
Sex	*hhsex*	Categorical	1=male 0 = otherwise
Education	*hhedu*	Categorical	1= Above form four 0 = otherwise
Marital Status	*mast*	Categorical	1= married 0 = otherwise
Technology	*techno*	Categorical	1= yes 0 = otherwise
Income	*inc*	Continuous	Amount earned
Saving type	*sat*	Categorical	1=formal 0=otherwise
Access to financial services	*afs*	Categorical	1 = has access 0 = otherwise
Financial inclusion	*FINC*	Continuous	Number of people included financially

3.0 Results and Discussion

3.1 Social economic characteristics of adult who have access to financial services

Findings in Table 2 show the majority (82.2%) of the respondents in this study were female which indicate that women have good access to financial services than man. Finding in Table 2 revealed thatabout 0.37 % of the respondents were between 16 years and 18 years, while 19% were above 60 years and 79% were between 19 years and 60 years. The findings in table 2 also indicate that, the respondents differed with regard to their marital status, whereby just over three quarters (83%) of respondents were married, 4% were divorced, 9% were widowed and 1% were single.

Table 2 summarizes findings of respondents' education level whereby slightly more than half of the respondents 53% had primary school education. About 15% of respondents had no formal education, only 11% had Secondary school education and only 3% attended high education.
These findings suggest that, the majority of the respondents in the study area had modest level of education that is primary education; nonetheless this can enable them to understand the relevance of financial services.
Technology is regarded as a crucial key in determining access to financialservices. Table 2 summarizes findings of respondents' technology usage, of which 92.18% were users and 7.82% were non technology users. These findings suggest that, the majority of the respondents in Tanzania had technology adoption which nonetheless this can enable them to understand the relevance of financial inclusion.

Table 2: Social economic characteristics of adult who have access to financial services

Variable	Frequency	Percent (%)
Sex		

Female	736	17.78
Male	3403	82.22
Total	**4139**	**100.0**
Age		
16-18	15	0.37
19-60	3283	79.9
Above 61	811	19.73
Total	**4109**	**100.0**
Marital status		
Married	3467	83.76
Divorced	186	4.49
Widowed	393	9.5
Single	93	2.25
Total	**4139**	**100.0**
Education level		
No formal education	615	15.17
Some Primary	488	12.03
Completed primary	2169	53.49
Technical	16	0.39
Some Secondary	154	3.8
Completed Secondary	452	11.15
Higher education	161	3.97
Total	**4055**	**100.0**
Technology		
Users	8719	92.18
Non users	740	7.82
Total	**9459**	**100.0**

3.2 Usage of Financial Services

Compared to 57.7% in 2013, the use of formal financial services has decreased to 65% in 2017. The percentage of the population that lives five kilometers or less from a location where financial services are offered is known as accessibility, and it has increased from 45% to 86% nationwide and to 78% for people who live in rural areas. Another noteworthy development is the rise in active mobile wallets to over 21 million, held by 16.6 million adult Tanzanians, according to FinScope Tanzania 2017 (NFIF, 2018). The NFIF is intended to assist FYDP II, which is intended to accelerate industrialization through agriculture and enterprise transformation and contribute to economic development in order to make the nation a middle-income one, in light of the national development agenda.Additionally, the NFIF backs ZSGRP III, whose goal is to lessen poverty by offering low-income individuals financial services. Given the critical role the financial sector plays in helping to achieve these goals, it is critical that the financial inclusion efforts that are given priority line up with the frameworks established by ZSGRP III and FYDP II.

Types of financial services

The research was able to identify several financial services offered in Tanzania, whereby mobile money was more preferred by the users by 55% of the respondents followed by saving groups by 16%, bank users by 14%, money lenders by 5% and the least was Saccos by 1%. The researcherswere able to conclude that most Tanzanians preferred the use of mobile money services as they provided a greater linkage across different platforms for accessing their funds, also they are reliable and secured. These results concur with findings from a study by mbiti (2011) in Kenya that mobile money account ownership decreases the chances of informal access.

Table 3: Type of financial services

Type of service by user	Frequency	Responses (%)
Bank users	1361	14.38
MFI users	471	4.97
Mobile money users	5279	55.8
SACCOS users	133	1.4
Saving group users	1533	16.2
Money lender users	474	5.01
Total	**9459**	**100**

3.3Determinants of access to financial servicesamong adult in Tanzania

The Logistic model was employed to analyse determinantsof accessto financial services among adult in Tanzania by looking P-value if is less 1%, 5% and 10% are statistically significant. The findings in table 4 revealed that age, primary completed, some secondary, secondary completed, university or higher education and income were the key determinantsto adults to access financialservices in Tanzania.

Table 4: Determinants to access of financial services

Variable Name	Coefficient	Std. Err	Z	P > |z|
Age	.0110488	0.0055169	2.00	0.045**
Sex	-0.5994834	0.417432	-1.44	0.151
Divorced/separated	-0.428338	0.4706999	-0.91	0.363
Widowed	-0.416593	0.5296207	-0.79	0.432
Single / never married	-0.5370695	0.6119652	-0.88	0.380
Some primary	0.3988458	0.2880716	1.38	0.166
Primary completed	0.6140601	0.2342	2.62	0.000***
Post primary technical	1.228112	1.044395	1.18	0.240
Some secondary	1.307803	0.451803	2.89	0.004***
Secondary completed	1.596746	0.2939236	5.43	0.000***
University	1.951057	0.4780833	4.08	0.000***
Technology	0.4448219	0.3208086	1.39	0.166
Income	3.33e-07	7.54e-08	4.41	0.000***
Constant	-0.6915842	0.6507824	-1.06	0.288
Number obv				1680
Wald Chi2(13)				82.40
Prob > chi2				0.000

*Significance Codes *** = 1% significance level, ** = 5%, and * = 10% significance level*

3.3.1 Age of respondents

Age had a positive relationship with financial inclusion and statistically significance at 5% since the p-value is less than 5% (0.045<0.05). And this imply that as an increase in 1 year by the respondent would result in increase of the probability of being financial included. These results concur with Zins and Weill (2016) who discovered that there is a non-linear relation between age and both forms of savings. Getting older increases the likelihood of being financially included, either formally or informally, until certain age after which the likelihood decreases. Also, a similar study by Timbula *et al*. (2019) revealed that age and financial inclusion have a positive relationship, from the logit model results it showed that financial inclusion increased with age until a certain age limit where it started to decrease. Peña *et al.,* (2014) and Hoyos *et al.,* (2013) stated similar findings that as people get old, they become aware of certain financial products offered by financial institutions and towards retirement they tend to stop having interest on them. Tuesta et al, (2015) who conducted a study in Peru, found that individual factors which affect the perception of different barriers to exclusion generally are income level and age. Although the income level may be a structural problem, age might reflect the absence of financial products that meet the needs of different groups.

3.3.2 Level of Education

3.3.2.1 Completed primary Education

Respondents who completed primary education also had a positive relationship to financial inclusion and statistically significance at 1% since the p-values is less than 1% (0.000<0.01). And this indicate that as increase by 1 year of primary education completed would result to probability of being financial included.

3.3.2.2 Completed primary Education

It is significance at 1% level since the p-value is less than 1% (0.004<0.01) and it has a positive relationship to financial inclusion as increase by a year of secondary education would result to probability of being financial included. Also, these findings concur with, Peña et al. (2014) which argued that education is a way of measuring awareness, skillsets and ability to make decisions in formal financial markets hence the positive relationship between financial inclusion and formal education

3.3.2.3 Completed University/higher learning institution Education

Also, it is significance at 1% level since the p-value is less than 1% (0.000<0.01) and showing to have positive relationship with access to financial services (financial Inclusion) among adults in Tanzania. This indicates thateducation have a strong impact on the access of financial services.Individual with higher level of education is more likely to access financial services. This can be compared tothe study by Timbula et al. (2019) conducted in Ethiopia who found out that education is a highly significant variable in explaining financial inclusion in the Jimma zone, the educated are more likely to understand and adopt various financial products offered due to their ability to make informed decision thus improving access to them.

Therefore, education have strong influence in accessing financial services among Adults in Tanzania since three out of five categories are statistically significance at 1% with 99% confidence level. *There is a strong relationship between university education and access to financial services. education can help individuals improve their financial literacy and navigate the financial system, while access to financial services can help individuals invest in their education and manage their finances." (*Researcher own words, 2023).

3.3.3. Income

Results from Table4 indicate that Income variable is statistically significance since the p-value of it is less than 1%(0.000<0.01) also had a positive relationship to financial inclusion as increase by a unit of income would result to probability of being financial included.This is consistent with research conducted in west Africa by Triki and Faye (2013), who discovered that there was a four-fold average increase in the likelihood of formal account ownership among adults in the highest income quartile compared to those in the lowest quartile. Their study also revealed a relationship between income level and financial inclusion. Asian researchers Cyn-Young and Rogelio (2015) also examined the relevance of per capita income and made the case that more per capita income promotes financial inclusion. A 2007 study by Sinha and Subramanian in India found that the main cause of financial exclusion is a lack of a consistent

source of income, which makes it difficult for people to save money and increases the likelihood that they won't be approved for a loan.

3.3.4 Sex

Financial inclusion and gender don't really matter. These results are consistent with information from the World Bank's Global Financial Inclusion database, which shows that there are notable gender differences in account ownership and credit and savings product usage. It also concurs with RBI (2008), which maintains that gender differences exist in financial inclusion.

4. Conclusions

The study concludes that financial inclusion is increasing in Tanzania through the access and usage of different financial products tailored to serve the population. Although the research failed to establish a significant relationship between financial inclusion and sex, marital status, and technology, others were able to play a significant role with age, education, and income. Also, the use of financial services via product availability in Tanzania was at a very steady rate. Tanzanians have been well informed with the knowledge of several financial services that have been very crucial in supporting them to save formally, rather than through the traditional informal saving channels. Although there was a high use of traditional money lenders, who are regarded as informal channels, this is most likely due to their accessibility. Some areas in Tanzania, such as Tabora and Simiyu, are still highly dependent on informal saving channels.

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