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The effect of demographic factors on intention to use banking services: evidence from Ethiopia

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Abstract

Nowadays, banking the unbanked has become critical for developing countries like Ethiopia, as most of the households do not hold bank accounts with conventional banks due to several factors. As a result, a huge amount of money circulates outside the banking system and limit the intermediation role of banking institutions. This study aims at determining the effect that demographic factors has on the unbanked intentions to use banking services in Ethiopia. The study was conducted in selected three regions of Ethiopia using multi-stage cluster sampling technique. Questionnaires were distributed and collected from 384 unbanked respondents in the three regions. Both *t*-test and ANOVA tests were adopted in order to analyse the data and determine the effect of demographic factors on intention to use banking services. The findings indicate that the unbanked individuals' level of education and occupation significantly affect their intention to use banking services. Therefore, Ethiopian banking sector should consider these factors while taking measures to bring the unbanked to the banking system and ensure that the bank services meet the requirements of the people at their respective levels of occupation and literacy.

Key words: unbanked, banking services, demographic factors, marketing

JEL Classification: E21, G21, M31, J11

Introduction

Banking business play a key role in enhancing economic growth of a country by directing financial resources from the surplus unit to those with more productive areas (Eshete, Tesome, & Abebe, 2013). Banks have a vital role to play in enhancing development, as distributors of funds from savers to borrowers and also facilitate entry to entrepreneurial activities by making capital accessible to the market (Cheng, 2006). They also offer required financial services to individuals

and businesses, which include collection, custodianship, safeguarding of savings made by depositors and delivery of disbursement services (Saritha, 2011).

However, in developing countries like Ethiopia, people prefer to keep their money at home rather than keeping it in safe custody with banks, which may be unproductive, risky or inconvenient. Due to the fact that many donors and governments believe that bringing people into formal financial mainstream benefit both individuals and country, today, institutions like the International Monetary Fund (IMF), World Bank, United Nations and Alliance for Financial Inclusion set goals, both at country and institutional level, for enhancing access to financial services. However, a significant proportion of people are still found unbanked.

According to IMF (2016), only 21.8 percent of population (age 15+) have bank account in financial institutions in Ethiopia, which is below the average (22.3 percent) for low income countries. This clearly indicates that many people do not have bank accounts and remain unbanked in the country, which can limit the activity of banks channelling financial resources from surplus to scarce units. Furthermore, it is observed that, in Ethiopia, access to finance remains a top barrier for business. The reports of Geiger & Moller, (2015) revealed that young and small firms seem to face more serious financial limitations. This may be due to absence of financial intermediation by the banking sector through mobilizing savings from the community to finance entrepreneurs. Such role requires the banking sector, particularly Ethiopian banks, to design strategies to bring money circulated outside the banking system into formal financial mainstream. For this reason, why significant portion of people are remained unbanked and those factors influencing the unbanked individuals' intention to use banking services need to be determined in order to bring them into the banking system and mobilize financial resources that would be injected into the economy.

In general, identifying reasons for being unbanked and factors influencing the unbanked intention to use banking services has a significant contribution for the Ethiopian banking sector. Therefore, the purpose of this study is to determine the reason for being unbanked, awareness level and the effect of demographic factors on the unbanked individuals' intention to use banking services in Ethiopia.

1. Literature review

Many studies have been conducted to determine the important factors that could affect the intention of customers to use or adopt various banking services (Alalwan, Rana, Dwivedi, Lal, & Williams, 2015). However, studies that are particularly focused on the unbanked consumers are limited (Siddik, Sun, Yanjuan, & Kabiraj, 2014). According to Joseph (2014) and Djankov et al. (2008), a significant number of households in developing countries do not have savings accounts with banks.

Breitbach & Walstad (2014) called these households, who are out of the formal financial mainstream, the unbanked.

Unbanked is usually used as a term to describe various groups of individuals who operate financial transactions outside the formal banking mainstream due to various reasons (Caskey, 2002). According to Anderson & Huerta (2014), the unbanked refers to any person who does not have a savings or checking account. Current literature on banking has found a relatively consistent definition of the unbanked household, which is an individual or household who do not have any formal bank accounts and operate mostly outside the banking system when making financial transactions (Breitbach & Walstad, 2014; Matul, Szubert, Cohen, & McGuinness, 2006; Rhine & Greene, 2013; and Wambua & Datche, 2013).

Several studies (Barr, 2002; Bruhn & Love, 2009; Goodstein & Rhine, 2013; Hogarth, Anguelov, & Lee, 2003; Lusardi, Annamaria, & Mitchell, 2014; Sain, Rahman, & Khanam, 2013) in financial marketing agrees that being part of the unbanked population is a problem because individuals have no means of accumulating assets and develop financial knowledge. Wealth building requires having financial tools and a means of saving (Anderson & Huerta, 2014). This is the reason why an individual should be in the formal financial mainstream.

There are many strategies and financial innovations that could get people into the financial mainstream: lifeline banking, mobile banking, promoting financial education and increasing the number of banks in low income areas (Rhine & Greene, 2013; Walker, 2014; Zwedu, 2014). However, it is revealed that banking involvement mainly depends on demographic, financial knowledge and socioeconomic variables (Bernheim, Douglas, & Garrett, 2003; Breitbach & Walstad, 2014; Goodstein & Rhine, 2013), with demographic factors being among the most common causes for a household being unbanked (Rhine & Greene, 2013).

Demographic factors influence the decision of individuals to use or not to use different banking services (Maitlo, Kazi, Khaskheley, & Shaikh, 2015). For instance, individuals with high level of education are expected to have sufficient knowledge and skill about banking services and can easily decide to use them. Whereas illiterates may face difficulty to understand banking services and keep themselves out of the financial mainstream. Nasri (2011) also stated that demographic factors (such as age, gender, income, occupation and education) significantly influence the consumer behaviour and intention to use banking services. According to this researcher, there is a significant impact that demography of individuals has on their intention to adopt internet banking services. Adding to this, Djankov, Miranda, Seira, & Sharma (2008) believed that the unbanked people's demographic characteristics will determine their level of participation in the banking system.

Results from different studies shows that unbanked households were significantly more likely to be unmarried (Caskey, 2002; Liew, 2006; Matul et al., 2006; Rhine & Greene, 2013), relatively earn low monthly income (Anderson & Huerta, 2014; Grinstein-Weiss, Yeo, Despard, Casalotti, & Zhan, 2010), and have increased number of dependents (Coetzee, 2009; Inganga, Ombui, Tirimba, & Njeru, 2014; Rhine & Greene, 2013). Another study conducted on the behavioural intention of banking services adoption found that there is no significance difference between male and female as both seems to be more willing to adopt the services. On the other hand, the study identified educational level of respondents has influence on their behavioural intention to adopt. Accordingly, those respondents with higher level of education exhibit the highest rate of behavioural intention and vice versa (Alalwan et al., 2015). Additionally, Nasri (2011) also identified the demographic factors that significantly impact consumer behavioural intention to use banking services, and specifically found occupation and instruction as significant determinants.

In some of other studies, the effect of age and gender on intention to use different banking services is found to be insignificant (Anderson & Huerta, 2014; Barr, 2002; Breitbach & Walstad, 2014; Inganga et al., 2014; and Krishnan, Teng, & Khalidah, 2017); whereas some researchers found significant effect particularly on intention to use banking services based on technology like mobile and internet banking (Abdinoor & Mbamba, 2017; Alalwan et al., 2015; Li & Lai, 2011). Other researchers studied the effects of socio-demographic variables on consumer use of mobile money transfer found that education level and employment status contribute significantly, whereas factors like gender, age and income level do not really matter (Marumbwa, 2014). In support of this, Djankov et al. (2008) and Bernheim et al. (2003) identify demographic variables like level of education and occupation strongly determine whether a household is unbanked or not. Hogarth, Anguelov, & Lee (2003) identified that the likelihood of being unbanked is also affected by certain family characteristics like larger families having a higher probability of being unbanked. This may be due to inadequate income, which makes individual households to operate out of the financial mainstream.

In general, it is understood that demographic characteristics of consumers can determine their intention to use or adopt a given product or service. Thus, studying the effect of these factors is significant as it provides informed analysis of will contribute for practitioners to be aware of it and design appropriate strategies to influence consumer behaviour. Additionally, this study focuses on unbanked individuals' demographic factors and intention to use banking services; which limited number of research has been conducted. Therefore, it adds value to the existing literature on the field of banking the unbanked.

2. Methodology

The population of this study comprise of individuals who do not have bank accounts in Ethiopia. Due to the size of the country, multi-stage cluster sampling technique was employed to select sample regions and establish data collection sites. Accordingly, three regions, including Oromia, Amhara and Southern Nations and Nationalities People (SNNP) were selected. These regions were selected purposively based on their representation of more than 95% of the population in the country, who take the lion share in contributing to the national economy and they are the business-hub where almost all banks are currently operating and extensively expanding their branches to provide access to banking services. Finally, a sample of 384 unbanked individuals were selected conveniently from the three regions.

Using questionnaires, data related to demographic factors and intention to use banking services were gathered from the selected samples. A five-point Likert scale was used to evaluate the intention to use banking services of respondents. The results were analysed by using one sample *t*-test, independent sample *t*-tests and one-way ANOVA to determine the effect of the unbanked individuals' demographic factors: age, gender, level of education, monthly income, occupation, employment sector, marital status and number of dependents, on their intention to use banking services.

3. Results

Table 1 presents the demographic distribution of unbanked respondents in this study. As indicated, 5.7% of respondents are between 18 to 25 years old, 35.2% are between 26 to 35 years old, 27.9% are between 36 to 45 years old; between 46 to 55 years old constitute 24% and the rest 7.3% are above 55 years old. The proportion of male are 59.6%, whereas 40.4% of them are female. Regarding educational level, only 23.7% hold bachelor degree and above. Most of them are employees in non-government offices and farmers, which accounts for 38.5% and 21.4% respectively. In terms of the employment sector, 89.8% of them are working in the formal sector, whereas the rest 10.2% are from the informal sector. Respondents earning a total monthly income of between 3501 to 4500 Ethiopian birrs accounts for 29.9%, whereas 8.1%, 28.1%, 28.4% and 5.5% of these respondents earn below 1000 birr, 1000 to 2500 birr, 2501 to 3500 birrs, and above 4500 birrs, respectively. While 41.4% are married, 42.7%, 10.7%, and 5.2% are unmarried, divorced and widowed, respectively. Moreover, 53.9% have a number of dependents from 1 to 3, whereas 22.4% have no dependents, 17.2% have 4 to 6 dependents and 6.5% have more than six dependents.

Table 1. Demographic characteristics of unbanked individuals

		Frequency	Percent		Frequency	Percent		Frequency	Percent
Age				Illiterate	18	4.7		Below 1000	31 8.1
	18-25	22	5.7	Primary school	32	8.3	Total Monthly income (in birr)	1000 - 2500	108 28.1
	26-35	135	35.2	High school	101	26.3		2501 - 3500	109 28.4
	36-45	107	27.9	Diploma	142	37.0		3501 - 4500	115 29.9
	46-55	92	24.0	Bachelor's degree	80	20.8		Above 4500	21 5.5
	Above 55	28	7.3	Post graduate degree	11	2.9		Total	384 100.0
	Total	384	100.0	Total	384	100.0			
Gender		Frequency	Percent		Frequency	Percent		Frequency	Percent
	Male	229	59.6	Teacher	17	4.4	Marital status	Married	159 41.4
	Female	155	40.4	Student	47	12.2		Unmarried	164 42.7
	Total	384	100.0	Businessman	23	6.0		Divorced	41 10.7
Employment sector		Frequency	Percent	Employee in government office	63	16.4		Widowed	20 5.2
	Formal sector	345	89.8	Employee in non-government office	148	38.5		Total	384 100.0
	Informal sector	39	10.2	Farmer	82	21.4			
	Total	384	100.0	Unemployed	4	1.0	Number of respondents	None	86 22.4
				Total	384	100.0		1-3	207 53.9
								3-6	66 17.2
								>6	25 6.5
								Total	384 100.0

Source: Survey (2016)

Table 2 indicates the unbanked individuals' intention to use banking services. The table depicts there is significant agreement that: a bank account would soon be opened ($M = 3.65$, $SD = .917$), t (383) = 13.806, $p < .0005$; using a bank account to manage financial affairs is under consideration ($M = 3.67$, $SD = .973$), t (383) = 13.589, $p < .0005$; banking services will be more relevant in the future ($M = 3.76$, $SD = .941$), t (383) = 15.883, $p < .0005$; preference to use banking services than keeping money in the house ($M = 3.58$, $SD = .972$), t (383) = 11.603, $p < .0005$; interested in experiencing the benefits of using bank services ($M = 3.62$, $SD = .940$), t (383) = 12.860, $p < .0005$; and interested in recommending usage of bank services to friends and relatives ($M = 3.33$, $SD = 1.002$), t (383) = 6.416, $p < .0005$. The listed items are all loaded onto a single factor and so were retained in the composite measure for ITU (Intention to use). The result indicated that there is significant agreement on intention to use banking services in the near future ($M = 3.60$, $SD = .784$), t (383) = 15.017, $p < .0005$. Cronbach's alpha used as measure of reliability for the ITU construct is .901, indicating a reliable measure.

Table 2: Unbanked individuals' intention to use bank services

Intention to use (ITU)	One-Sample Statistics					
	N	Mean	Std. Deviation	Test Value = 3		
				t	df	Sig. (2-tailed)
It is likely that I would have a bank account soon	384	3.65	.917	13.806	383	.000
Using a bank account to manage my financial affairs is something I am considering	384	3.67	.973	13.589	383	.000
I believe that using banking services will be more relevant in the future	384	3.76	.941	15.883	383	.000
I still prefer to use banking services than keeping money in the house	384	3.58	.972	11.603	383	.000
I am interested in experiencing the benefits of using bank services	384	3.62	.940	12.860	383	.000
I will recommend usage of bank services to my friends and relatives	384	3.33	1.002	6.416	383	.000
Overall intention to use (ITU)	384	3.60	0.784	15.017	383	.000

Source: Survey (2016)

Using this results of ITU, independent samples *t*-test and one-way ANOVA was conducted to test whether unbanked individuals' demographic factors have a positive significant impact on their intention to use banking services.

The independent samples *t*-test presented in Table 3 shows that there is no significant difference between male ($M = 3.58$, $SD = 0.776$) and female ($M = 3.63$, $SD = 0.797$) on their intention to use banking services; $t (382) = -0.582$, p -value = 0.561.

Table 3. Independent samples *t*- test of gender and intention to use bank services

Gender		N	Mean	Std. Deviation	df	t	Sig. (p-value)
ITU	Male	229	3.5815	0.77573	382	-0.582	0.561
	Female	155	3.629	0.7974			

Source: Survey (2016)

Table 4 indicates that there is no significant difference in the unbanked individuals' intention to use banking services regardless of different age groups, total monthly income, employment sector, marital status and having different number of dependents since the *p*-values are significant. However, there is a significant difference in intention to use bank services for different levels of education $F (5, 378) = 2.859$, $p = .015$ and for different categories of occupation $F (6, 377) = 2.280$, $p = .036$.

Table 4: ANOVA test of demographic factors and intention to use bank services

ITU		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	4.229	4	1.057	1.734	0.142
	Within Groups	231.1	379	0.61		
	Total	235.329	383			
Level of education	Between Groups	8.575	5	1.715	2.859	0.015
	Within Groups	226.754	378	0.6		
	Total	235.329	383			
Occupation	Between Groups	8.241	6	1.373	2.28	0.036
	Within Groups	227.088	377	0.602		
	Total	235.329	383			

Total monthly income	Between Groups	3.21	4	0.802	1.31	0.266
	Within Groups	232.119	379	0.612		
	Total	235.329	383			
Employment sector	Between Groups	1.504	1	1.504	2.458	0.118
	Within Groups	233.824	382	0.612		
	Total	235.329	383			
Marital status	Between Groups	1.323	3	0.441	0.716	0.543
	Within Groups	234.005	380	0.616		
	Total	235.329	383			
Number of dependents	Between Groups	1.565	3	0.522	0.848	0.468
	Within Groups	233.763	380	0.615		
	Total	235.329	383			

Source: Survey (2016)

4. Discussions

This study identified the demographic characteristics of unbanked individuals and its effect on their intention to use banking services. The results indicate that most of the unbanked are young age wise, have dependents, possess lower total monthly income, most of them are employees of non-government organizations and farmers in occupation, and majority of them possess maximum education level of diploma, high school certificate or less. This in line with the results from some previous studies from other countries ((Bernheim et al., 2003; Breitbach & Walstad, 2014; Goodstein & Rhine, 2013; Krishanan et al., 2017; and Nguyen, Cao, Dang, & Nguyen, 2016).

However, the result indicates that there is no significant difference in the unbanked intention to use banking services regardless of different age groups, gender, total monthly income, employment sector, marital status and having different number of dependents since the *p* values are not significance. Similarly, studies conducted by Yadav, (2016), Krishanan, Teng, & Khalidah, (2017), and Ahad, Dyson, & Gay, (2012) on the effect of age determining individuals intention to adopt different banking services found the result to be insignificant. Furthermore, Hogarth, Anguelov, & Lee, (2005); Anderson & Huerta, (2014); Breitbach & Walstad, (2014); Barr, (2002); Yadav, (2016)

and Inganga et al., (2014) found that there is insignificant effect that gender and marital status has on individuals' intention.

As a matter of fact, Alafeef, Singh, & Ahmad, (2012), Breitbach & Walstad (2014), Djankov et al. (2008) and Bernheim et al. (2003) identifies demographic factors like income, employment sector and number of dependents as contributors to individual's likelihood of being banked or unbanked. However, Yadav, (2016) and Abdinoor & Mbamba, (2017) identified that even if there is relationship between income of individuals with their intention to use banking services, the effect of the factor is not significant. This supports the present study's finding. This may be due to the fact that most people consider saving money in banks as being like making payment for other bills. It is used as one of the best saving strategies by many people; individuals designate a certain amount of their income as their pay and they pay themselves that money before paying any other bills, so that a considerable amount of their income will be saved in banks. Therefore, such facts cannot be affected by amount of income earned, size of family or employment sector. This fact may make the impact of these factors on the individual's intention to use banking services insignificant.

Moreover, the finding of this research singled out that there is a significant difference in intention to use bank services for different levels of education and categories of occupation. This implies that the unbanked individuals' level of education and occupation has significant influence on their intention to use banking services. In line with this findings, Wambua & Datche (2013) also identifies the effect of individuals' level of education will become stronger as the level of banking participation moves to the unbanked. In addition, Djankov et al. (2008) and Bernheim et al. (2003) identify variables like level of education and work force participation to be strong determinants of whether a household is unbanked or not. On top of this, Abdinoor & Mbamba, (2017); Marumbwa, (2014); Talafha & Abu-shanab, (2015) and Painoli & Singh, (2017) concludes that people's level of education significantly determine their decision to use or not to use various banking services. The reason for this may be due to the fact that people with low level of education initially find the banking service unsuitable from a literacy viewpoint and, also, they may not understand the importance of banking. On the other hand, people with higher educational level may better understand the usefulness and how to deal with banks, so that they may exhibit positive intention to use.

5. Conclusion

Today, the issue of banking the unbanked have attracted the attention of banks, community based organizations and policy makers. So in order to be successful in bringing these unbanked people to the banking system, understanding those factors that affect their intention to use banking services is important. This study examines the effect of demographic factors on the unbanked intention to use

banking services. It is concluded that the demographic factors, specifically, level of education and occupation, have a significant effect on intention to use banking services of unbanked individuals. But, the result revealed the effect of age, gender, total monthly income, employment sector, marital status and number of dependents as being insignificant. Therefore, banking sector in Ethiopia need to understand these factors while taking measures to bring the unbanked into banking system. Moreover, it is recommended that, among others, banks should consider the level of education and occupation of the people while designing and introducing services and ensure that such services meet the requirements of people at their different levels of occupation and literacy.

This study has important implication as it will be useful for bankers, policy makers, and other researchers, as banking the unbanked is important in enhancing economic growth of a country by directing financial resources from surplus unit to those with more productive area. Furthermore, the study was conducted on the unbanked individuals in only three regions of Ethiopia. The study can be undertaken in other regions of the country with different population profile, which may result in different conclusion. Therefore, future studies may look at this to get a more comprehensive profile of the unbanked population in the country and determine its effect on their intention. Beside the demographic factor, further research should be conducted to identify other factors, which could influence the unbanked population's intention to use banking services in other developing countries like Ethiopia. This would be important for developing marketing strategies to bring the unbanked into financial mainstream.

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