Impact of financial literacy in optimising financial inclusion in rural South Africa: Case study of the Eastern Cape Province

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Abstract

The South African financial sector is well known for its sophistication albeit, one would argue, at the expense of the broad masses at the bottom of the economic pyramid. There are millions of South Africans who are unbanked or under-banked (financially excluded), the majority being those from previously disadvantaged population groups. A well-functioning financial system is the one that is inclusive. Even though access to banks includes availability, affordability and appropriateness of the services, access to an entry-level bank account, is often a good proxy for the ability for one to make payments and save giving the account holder some financial flexibility. At household level, access to financial services enables the family to invest, save, insure their property or borrow, while at small business level, access to financial service increases productivity, promotes entrepreneurship and thus contributes to job creation.

The objectives of this paper are to firstly investigate the impact of financial literacy programmes on financial inclusiveness of marginalised populace within the Eastern Cape Province. Furthermore, strategies employed by financial services institutions to enhance financial inclusion were assessed. The study made use of household survey data provided by Southern Africa Labour Development Research Unit (SALDRU) supplemented by self administered survey among beneficiaries of various financial literacy training programmes in Eastern Cape. Data analysis was done using STATA 11.

The study concludes that, financial inclusion increase by improvement in literacy levels. Most respondents indicated that, in most cases they would not use bank services as they will not be fully aware of the implications therefore. Financial literacy training can be argued to make individuals appreciate the essence of using banks and many advantages that will accumulate thereof. With increased financial inclusion, South Africa will be able to avoid, volatile capital inflows sourced to supplement low domestic savings, therefore able to have stability within the economy. Efforts to use modern technology to improve financial inclusion are countered by lack of trust (mitigated by human interface). Trust can be improved by education, making individuals more comfortable to use the services.

Key Words: *financial inclusion, financial literacy, access to banks, South Africa*

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I: Introduction

In spite of the high level of financial sector development, about 37% of South Africa's 33 million adults did not have access to banking services in 2010 and the majority of informal businesses have limited access to formal financing, (OECD, 2012). The purpose of a financial inclusion agenda is responsible wealth creation and distribution as well as efficient transfer of capital. Financial inclusion has become a buzz word in the academic and policy arena, with sustainable development being tied closely to financial inclusion in literature and some efforts have been made to include this in policy mix. Financial Inclusion is the delivery of banking services at affordable costs to vast sections of disadvantaged and low income groups including households, enterprises, SMEs and traders; Pawar, Kumar, Joshi & Chawla (2011)

It follows that some portions of the population fail to access such services, and when they make effort to access the costs may be unbearable. This therefore still excludes such part of the population which can use them out of the financial sector. Types of financial exclusion include (i) exclusion from payment system: not having access to bank accounts, for example and (ii) exclusion from formal credit markets leading to approaching informal/ exploitative markets with a debt lock in effect due to unjustifiably high repayment burden. Failure to access a bank account also means failure to save.

The ability to save and easily make payments contribute to economic development (accumulation of loanable funds and easiness of executing transactions) and presents a platform for economic emancipation. The relationship between the savings rate and economic growth should not be underestimated. South African savings culture is well documented as low, at 16% of GDP in comparison to 52% of China, 22% for Russia and 38% for Botswana. More so, it is not only the discouraging standing among peers but that prior to 1994 the South African savings rate was above 30% to GDP. In the current 16%, households contribute a mere 1.5%. In its Unlocking African Moment's[§] agenda, African Monitor[**] asserts that African development is only possible when the marginalised

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[§] African Monitor argues that, the next development wave is to be pioneered by the African continent, and the time is now, what is needed is to unlock the moment. www.africanmonitor.org

[**] A continental NGO focused on monitoring donor funding utilization by governments

communities (grassroots communities) are part of the strategies- when their voices are represented in policy and their priorities and aspirations are well catered for.

The Center for Financial Inclusion (CFI) defines financial inclusion as a state in which all people have access to a full suite of quality financial services, provided at affordable prices, in a convenient manner, and with dignity for the clients. This implies that financial inclusion is beyond mere access to financial services as could be assumed. It adds that these services are provided by a range of institutions, mostly private. Gardeva and Rhyne (2011) notes that based on survey results, CFI expands its definition to note that full inclusion requires the clients of these services to be *financially literate*. The study further notes that financial education is one of the best ways to empower the working poor to take control over their financial lives, which has a ripple effect to all areas of their lives. Currently the definition of financial inclusion has been improved to recognise the need for financial literacy for a proper financial inclusion to be realised. This is at the backdrop that, access and use of the financial services needs understanding and independence for consumers to make informed decisions about their finances. This is a thorn to wide measures of financial inclusion that have been adopted as most lack the component of financial literacy. Financial literacy is thought to enable unlocking of other dimensions of financial inclusion namely: client protection, prevention of over indebtedness, new product development and reaching poorer clients. It can be argued therefore, that financial literacy will help prevent financial inclusion to end up being a burden, and thus provide a platform for better social benefits. In other words, financial literacy can be hypothesised to improve financial inclusion and ensure its sustainability.

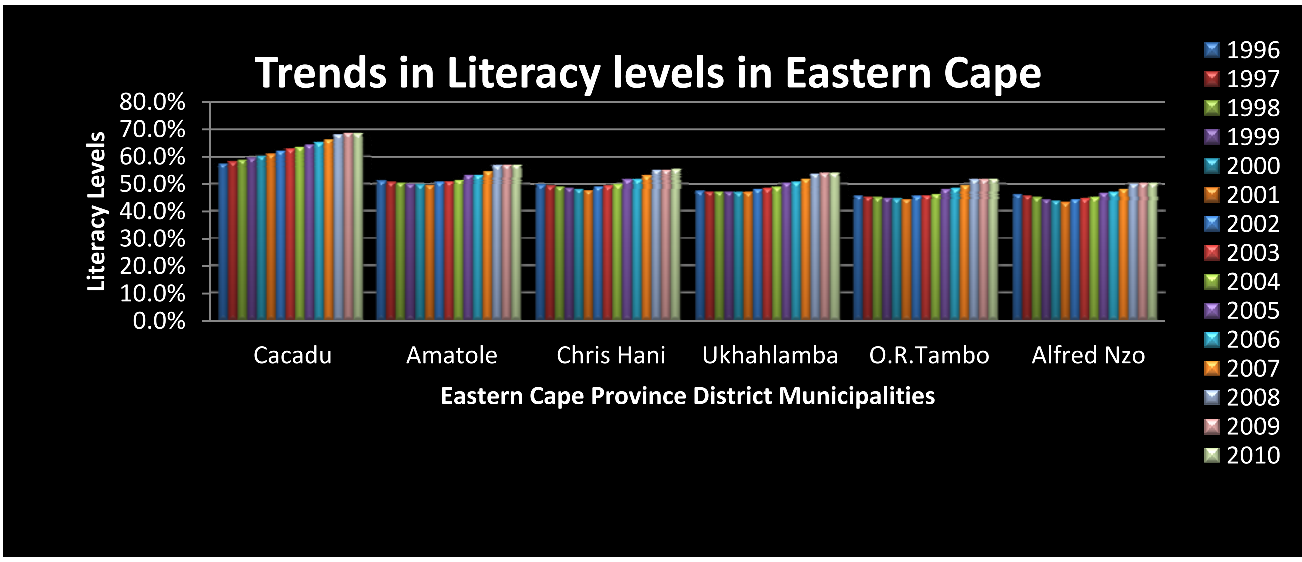
II: Overview of financial literacy programs in South Africa

Financial inclusion has become a crucial matter in South Africa, because, as indicated by National treasury (2011) a large number of South Africans still remain excluded from formal financial services. Furthermore, this has shown terrible consequences, not only to those who are directly affected, but to the economy as a whole. Lazenby (2011) reports that 9.1-million South Africans as being financially excluded in 2011, up from 7.8-million in 2010. This meant that 27% of adults did not have, or make use of any financial products and services, either from the formal or informal markets. Banks seemed to have moved with the middle and upper economic class individuals neglecting the lower tier. This is concerning given the inequality of the South African economy, where very few individuals hold the greatest amount of wealth. This means very few are accessing banks and therefore enjoying the flexibility to save and make transactions easily (among many other benefits). Financial exclusion further widens the inequality gap.

In an attempt to overcome this problem of increasing trend of financial exclusion, the government and other stakeholders have undertaken a number of programs such as financial literacy programs, economic literacy, innovations in technology, simplification of the qualifying requirements of opening an account amongst other measures in order to empower consumers. This is not an exception to South Africa, as similar efforts have swept the world over. These financial literacy programs are aimed at helping consumers to make informed financial decision in both business and personal capacity. As pointed in the USAID final report (2009), the programmes are categorized as the Consumer financial literacy and the SME financial Literacy**.**

Financial literacy has not been traced well in literature and policy; however general literacy rates are available. Literacy levels vary geographically in South Africa, across and within provinces as shown in Figure 1.

Figure 1: Trends in Literacy levels

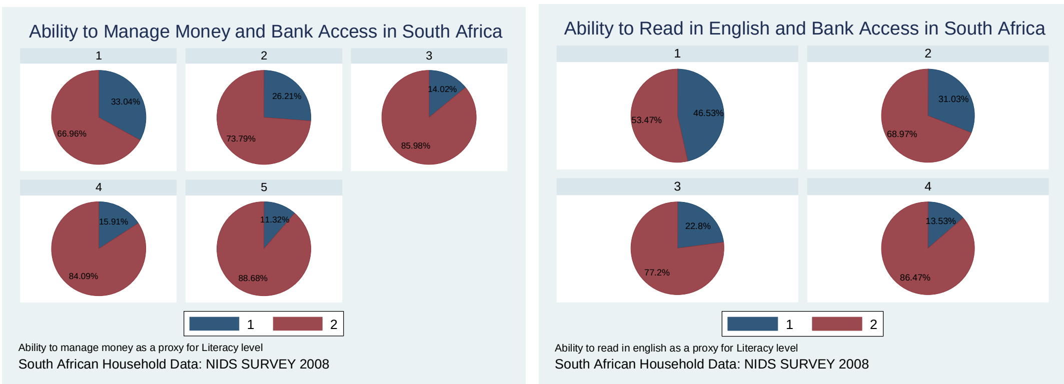


Source: Data, ECSECC 2012, Authors' drawing

Figure 1 shows that between the years 1996 and 2010, literacy levels generally increased in all the municipalities in Eastern Cape Province. Cacadu municipality has the highest number of literacy levels whilst Alfred Nzo has the lowest number of literacy levels. In Cacadu municipality, literacy levels display a persistently increasing trend since 1996 up to the year 2007. Thereafter till 2010, literacy levels have been constant. In Amatole, Chris Hani, O.R. Tambo and Alfred Nzo municipalities, the same pattern of literacy levels was registered whereby the levels started by decreasing from 1996 up to 2001, and then slowly increased thereafter. In the last three years, the level was constant, except for Chris Hani municipality in which the level further increased in 2010. In Ukhahlamba municipality, literacy levels were stable from 1996 up to 2001. Thereafter, there was an increase till 2007. However, in the last three years, i.e. 2007 to 2010, literacy levels were constant. On average the literacy rate in Eastern Cape is around 45%, and if literacy matters in financial inclusion, this becomes a worrisome trend.

The focus of this study is however, on financial literacy with a challenge of unavailability of time series data, especially at micro level. Given different measures of financial literacy, there are also variations by geographical location of the individual, occupation among other factors.

Figure 2: Literacy level and access to Banks in South Africa



Ability: 1= best; 5= worst; blue= has account, red= no account

Ability to manage money

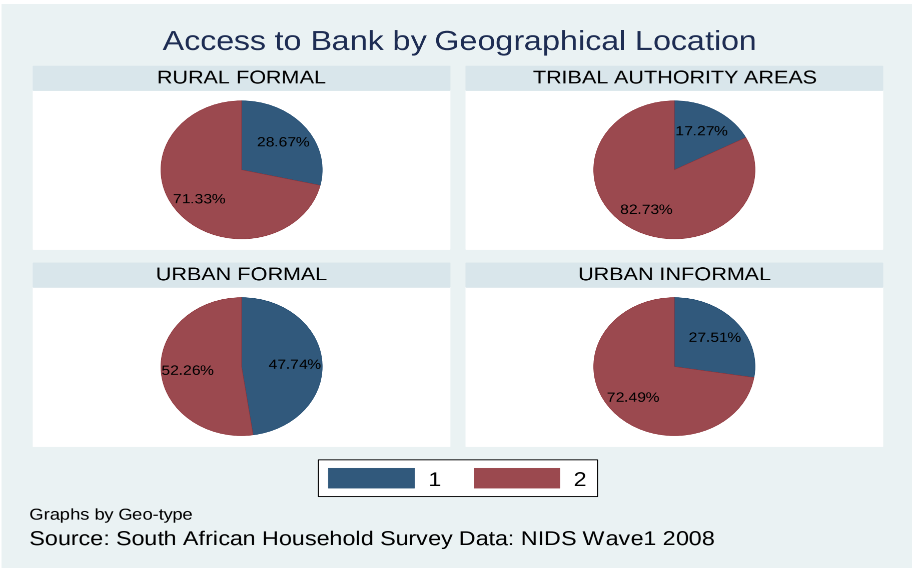
The highest bank access portion is observed from those adults who have responded that they are able to manage money very well. Ability to manage money can be taken as financial literacy. This literacy makes one able to appreciate savings, easiness of doing electronic transactions among other benefits of being a bank account holder. It is imperative to also note that being able to manage money is not enough; one must practice it so that confidence improves. This need to practice what is being able to be done is illustrated by a mere 11.32% account holders of those who are able to manage money but never did it. Those who responded are not able to manage have better access rate to banks than this group of those able but never practiced.

Ability to read English

This seems to be the best proxy for literacy levels as observed from greater proportion of bank access among those who can read in English. This variable was mainly chosen as having a bank account requires more reading than writing and, most banks in South Africa have most (some in isiZulu, Sesotho) their information in English. Those who are able to read English have confidence to interact with bank officials and can better read and understand different services offered as well as deduce the benefits. Almost half of those who can excellently read English have bank accounts. This is higher given that only a third of those who have no difficulty in managing money are having accounts.

Most of the financial literacy programmes have been conducted in semi-urban (mainly) and rural areas. The understanding, and belief is that most of the unbanked are in rural areas and peri-urban, and thus access to banks can be hypothesised to follow geographical lines.

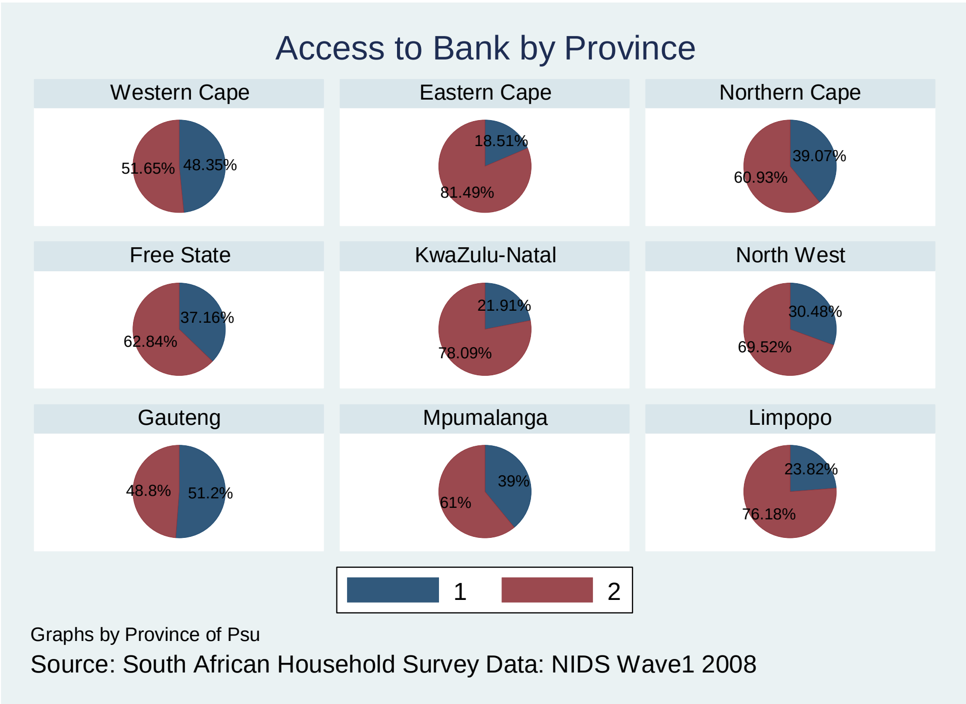
Figure 3: Access to banks by location



NB: 1=has bank Account 2= No bank account

The above charts analyse access to banks by where one lives, that is by geographical area, as expected more account holders are in the urban formal, followed by rural formal, then urban formal and lastly tribal authority areas. As mentioned before, urban dwellers have easy access (distance to travel) to banks, or receive some income (which may require to be paid in bank account) among some other reasons. Rural formal and urban informal have almost the same proportion. This maybe so because urban informal involve shack dwellers who are either still looking for better opportunities in the urban or they are engaged in survivalist entrepreneurs (fruit vendors/ hawkers) and have little money to save. Furthermore, Schoombee†† argued, commercial banks traditionally do not serve low-income earners, micro-entrepreneurs and the poor (collectively referred to as the unbanked), chiefly because the high costs involved make it unattractive.

Figure 4: Access to banks by Province



NB: 1=has bank Account 2= No bank account

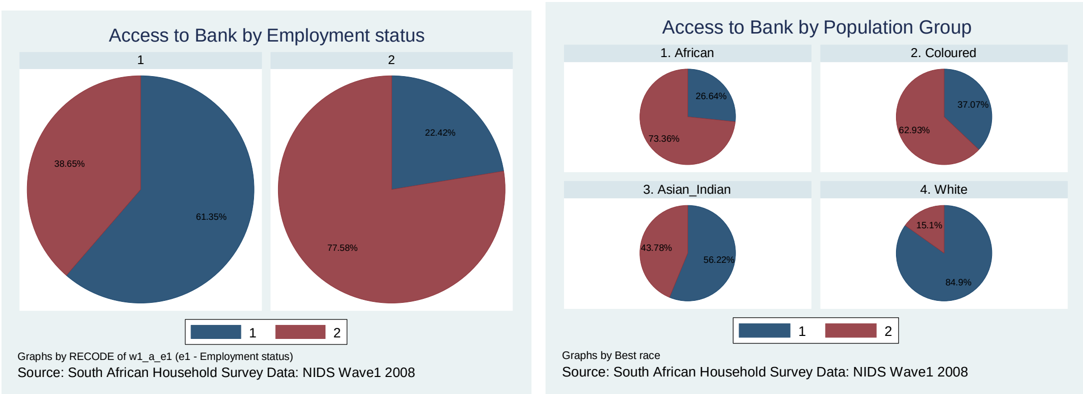
On the other hand, interestingly, those provinces that exhibited more urban dwellers (Western Cape and Gauteng) also lead in the proportions of bank account holders. The ones with majority rural folks (KwaZulu-Natal, Limpopo and Eastern Cape) all have less than 25% of bank account holders. Hence, Eastern Cape is considered a rural province with majority grassroots communities (the marginalised elderly, youth, the poor) as is mainly a labour sending provinces to other economically intense areas like Gauteng. Eastern Cape Province has the highest number of unbanked individuals, as of 2008.

From the analysis it can be argued that, where one live have a bearing on access to banks, either due to restriction on supply or due to limited client base. This portrays uneven distribution of bank branches across the country. However,

†† SOUTH AFRICAN BANKS AND THE UNBANKED: PROGRESS AND PROSPECTS: http://www.essa.org.za/download/2003Conference/SchoombeeA_South%20African%20Banks%20And%20The%20Unbanked%20Progress%20And%20Prospects.pdf

the issue of bank distribution can be argued from either the supply of demand side. Banks may fail to penetrate rural areas due to limited demand, or individuals fail to access banks because they are not nearby. Whichever the angle taken, there are many people who are unbanked in the rural areas compared to urban.

Figure 5: Access to Banks by Employment status and Population group



NB: 1=has bank Account 2= No bank account

Most organisations now resort to paying salaries and wages through banks (convenience, reduce cash handling and easy for tracking anomalies at the side of the employer) and therefore the demand for bank services can depend upon one's employment status. Around 61% of those employed have bank accounts, compared to only about 22% of those unemployed. The difference is remarkable aiding the argument that employment status determines access to banks by individuals in South Africa. Given the adamant unemployment rate, around 51% for youths, access to financial sector remains limited for many. In Eastern Cape, unemployment rate is around

South Africa, as a multiracial society is expected to experience variations on many issues across population groups. The population groups portray habits, cultures, beliefs, economic classes that vary from group to group. For example, Africans have been oppressed heavily during apartheid (obscuring them from many opportunities), and this may affect their access to banks. Also holding a stereotypical myopic view of banks as meant for the top class or certain group may also stall bank penetration among Africans. Language and social barriers were two of the main factors, but geography also played a role[‡‡]. Based on NIDS data, over

[‡‡] Lincoln Mali, director of convenience banking for Standard Bank South Africa- http://www.atmmarketplace.com/article/133704/Reaching-the-unbanked-Learning-from-South-Africa-s-FIs

three quarters of whites have bank accounts compared to barely above a quarter for Africans, just over a third for Coloured and over 56% of Asian-Indian.

The results of the analysis so far corroborate views of the banking industry leaders in South Africa. For example according to Pravesh Mahadeo[§§], general manager of ABSA's self-service channel about 17.5 million of South Africans (in 2005- about a decade into democracy) are unbanked. And of that 17.5 million, 5.7 million are "economically active individuals" who do not have bank accounts. Adding, this is because using banks has not been convenient. Pointing out that thirty-five percent of the 5.7 million live in rural areas, 25 percent live in informal settlement or shacks and 24 percent live in townships - all outside the metropolitan area where financial institutions are located. Accessibility of banking infrastructure therefore is key, however with technological advancement to e-wallet, point-of-sale (till point withdrawals), M-PESA[***], etc, the infrastructure barrier is set to be overcame. Nonetheless it depends on how the services are presented to the target group, and how informed are they to accept the services and use them with confidence- this is where financial literacy matters.

The consumer financial literacy program offers basic financial information that every consumer needs, which includes: how to manage personal financial decisions; how to open a bank account and the importance of having a bank account (USAID, 2009). The target groups for this program are school learners, community members and every other consumer. Intuitively, the education is on how to utilise financial services and building confidence of participants in utilising such services. Therefore this study hypothesises a positive link between financial literacy and financial inclusion (access to entry level bank account).

The SME financial Literacy offers similar information as the consumer financial literacy program. However, since it focuses on a different target group, it further offers information on the sources of finance; types of financial products that are suitable for businesses and qualifying requirements for SMEs, cooperatives among others. In South Africa, this program is mostly offered by government

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[§§] http://www.atmmarketplace.com/article/133704/Reaching-the-unbanked-Learning-from-South-Africa-s-FIs

[***] In September 2010 Vodacom and Nedbank announced the launch of the service in South Africa, where it is estimated that there are more than 13 million "economically active" people without a bank account. Since 2010, M-Pesa has been slow to gain a toehold in the South African market. When M-Pesa first launched, Vodacom projected that it would sign up 10 million users in the following three years. By May 2011, it had registered approximately 100,000 customers. The gap between expectations for M-Pesa's performance and its actual performance can be partly attributed to significant differences between the Kenyan and South African markets, including the banking regulations at the time of M-Pesa's launch in each country. According to MoneyWeb, an investment website, "A tough regulatory environment with regards to customer registration and the acquisition of outlets also compounded the company's troubles, as the local regulations are more stringent in comparison to our African counterparts. Lack of education and product understanding also hindered efforts in the initial roll out of the product." In June 2011, Vodacom and Nedbank launched a campaign to re-position M-Pesa, targeting the product to potential customers who have a higher Living Standard Measures (LSM) than were first targeted.

agencies such as SEDA, ECDC, Khula Enterprise Finance LTD among others. These programs are channeled to the demand side through in-person trainings, mass media, and other marketing instruments such as brochures.

The challenge of financial exclusion is apparent in South Africa and given the benefits of financial inclusion and the objective to close the inequality gap, ways of optmising financial inclusion are needed. From the perspective of banks, financial inclusion means more business; on government side it means more platforms for development and to the individuals it means empowerment, freedom and flexibility. In this instance, it appears, financial inclusion is everyone's business.

Strategies employed by financial institutions to enhance financial inclusion in South Africa.

Financial institutions have embarked on consumer education as one of their social responsibility, and marketing strategy as most look back to the unbanked populace for growth and sustainability. Programmes undertaken by financial institutions in South Africa include: Be Financially Smart administered by FNB; Bubomi governed by ABSA; Teach Children to Save South Africa[†††] (for children and Youth) directed by the Banking Association South Africa; Junior Achievement South Africa (JASA); Credit Bureau Association (CBA) programme and Visa Financial Literacy Drama[‡‡‡], among many others. This attests to the significant role place on financial literacy on optimising financial inclusion; especially for the marginalised communities who either lack basic education, or are not aware of the financial system and how they can be part of it.

The National Treasury Policy Document (2011) discusses a wide range of innovations that have been employed in South Africa to expand access to banking, thus enhancing financial inclusion. These include domestic money transfer systems; payment via prepaid cards; using community banking mobile banking account; the use of virtual payments, pure cash back at point of sale (POS), transaction notification services and early debit orders (EDOs). These innovations help to reduce costs and take banking to all corners of the country, presenting an opportunity for financial inclusion. As financial inclusion is about ensuring that all

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[†††]http://www.tcts-sa.org.za/Newsroom/Programme%20Integration%20TCT%20SA%202012.pdf

[‡‡‡] http://www.visacemea.com/av/financial_literacy.jsp

South Africans have access to financial services that encourage them to manage their money, save for the future, obtain credit and insure against unforeseen events, these innovations have greatly helped in reducing financial exclusion since they have benefited many of the previously unbanked. Confident and ability to utilise financial services can be key to improving uptake of the vast financial mechanisms being employed. This follows that opening a bank account without much confidence in utilising it may result in redundant accounts and therefore the individuals will remain financially excluded. Also failure to utilise the services may be costly and result in many drop offs from the service usage. We would like to suggest that financial education has a vital role to play in sustaining and harnessing financial inclusion efforts and achievements.

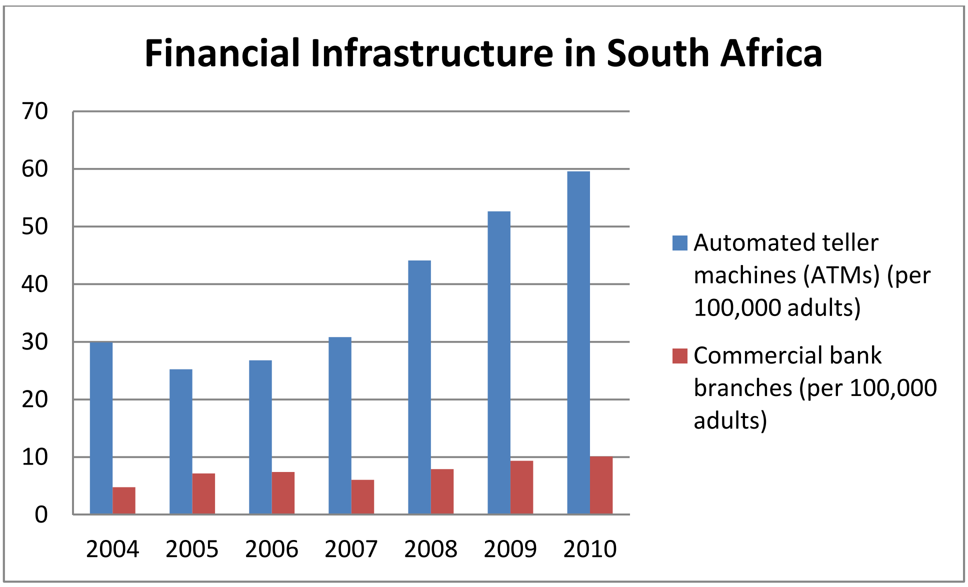
In a way to try and promote financial inclusion in South African economy, the financial sector charter (FSC) came into effect in January 2004 and one of the key initiatives flowing from the FSC process is the Mzansi account which was launched by First National Bank, Absa group, Standard Bank, Nedbank and state-owned Postbank in October 2004 (FinMark Trust, 2009). The Mzansi account is a basic, low cost version of a transactional account, with restrictive rules and for which only low-earners were eligible. While about four million Mzansi accounts have been opened, many remain dormant, as account holders do not transact much after opening their accounts or use their accounts to withdraw the full amount the moment it is paid into their accounts (Pindy, 2011).

Owing to the relative failure of Mzansi accounts, coupled with rising competition and the success of non-traditional banking products in other parts of the continent, Standard Bank launched a mobile banking account in 2007. Although the mobile banking account was first piloted in 2007 in four areas, it was rolled out countrywide in 2010 (Pindy, 2011), building on mobile phone technology and partnerships between the bank and informal retailers to offer a practical, affordable banking product. This has seen the number of new accounts signing increasing exponentially- however no information is available to ascertain if the new account holders are not those who are just diversifying (with another account already) as compared to capturing new entrants. Sustainability of this growth in new accounts may only be possible if the new account holders are well aware of the financial implications, cost minimizing usage and the benefits to accrue thereof.

To add on, Commonwealth and La Francophonia (2011) points out that initiatives are being undertaken to simplify the qualifying requirements for opening a bank account and the government also plays a supervisory role in enhancing consumer protection in financial institution through the Financial Services Board (FSB). The South African financial institutions have succeeded in some of these strategies however more still needs to be done, because, as indicated on the 2011 FinScope South Africa, the percentage of adults who are financially excluded increased from 23% in 2010 to 27% in 2011.

On the other hand financial inclusion may also be thought to involve access to the financial infrastructure by all the population groups and ages. Infrastructure entailing access to bank branches, ATMs and point of sale via retail shops and other various financial products, however the knowledge to make use of various financial products has been neglected- this is what financial literacy is meant to address. Kudva (2012) argues that while financial inclusion initiatives give people access to organized financial services, the lack of knowledge has resulted in sub-optimal impact in using this opportunity and in some cases proven counterproductive with the creation of debt traps. The author added that, financial literacy programmes need to go hand-in-hand with financial inclusion initiatives to create the pull for accessing formal channels of finance. Further, these programmes need to be tailored to take into account the demographic profile and regional differences of the target population for a stronger impact. According to Kudva (2012), financial inclusion and financial literacy form two sides of a coin with inclusion activities giving the push and literacy programmes creating the pull for financial services.

Figure 6: Financial Infrastructure development



Source: Data, IMF 2012, Authors drawing

Figure 6 indicates that in terms of infrastructure, the number of automated teller machines per 100,000 adults decreased between the years 2004 and 2005. A possible cause for the decline in the number of ATMs is the increase in the number of ATM bombings in the country during the same period, (Sewpersad (2010). Furthermore, though indirectly Sewpersad (2010) noted again that the occurrences of cash-in-transit (C-I-T) robberies in South Africa increased steadily from 192 in the 2003/2004 financial year to 220 in 2004/2005. This might have negatively influenced the desire of banks to establish ATMs. However from 2005 till 2010, the number of automated teller machines per 100,000 adults swiftly increased. An increase in the number of commercial bank branches (per 100,000 adults) could be the likely basis behind the increase in the number of ATMs. Also, multipurpose ATMs introduced by commercial banks, for example Nedbank, contributed to the increase in the number of ATMs in the country.

The number of commercial bank branches in South Africa increased slightly between 2004 and 2006. However, in 2007 there was a decrease in the number of branches. A gradual increase in the number of branches was recorded since 2008 till 2010. This indicates an improvement in financial inclusion. The use of mobile branches in the form of caravans that are equipped to assist clients by Nedbank in 2008 contributed much to the increase in the number of bank branches in the country.

Although there are noticeable financial literacy programmes in South Africa, the question still remains: can financial literacy programmes be utilized in optimising financial inclusion?

III: Literature review

Leeladhar (2005) discusses that in the United Kingdom (UK), the Financial Inclusion Task Force identified three priority areas for the purpose of financial inclusion, and these include access to banking, access to affordable credit and access to free face-to-face money advice. To reduce financial exclusion in the UK, basic bank no frills accounts were introduced; an enhanced legislative environment for credit unions was established, a Post Office Card Account (POCA) was created for those who were unable or unwilling to access a basic bank account and the concept of a Savings Gateway was piloted. To add on, the Community Finance Learning Initiatives (CFLIs) were also introduced with a view to promoting basic financial literacy among housing association tenants.

Sarma and Pais (2008) did a cross country analysis to investigate macro level factors that can be associated with financial inclusion. Data for 49 countries was used and three basic dimensions of financial inclusion – accessibility, availability and usage of banking services were utilized. The index of financial inclusion (IFI) which measures the inclusiveness of the financial sector of a country or region was employed. Results of the study reveal that income as measured by per capita GDP is an important factor in explaining the level of financial inclusion in a country. To add on, income inequality, adult literacy and urbanisation were also to be important factors in explaining financial literacy. Furthermore, it was concluded that physical and electronic connectivity and information availability, indicated by road network, telephone and internet usage, also play positive role in enhancing financial inclusion.

Oseifuang (2010) studied the level of financial literacy and its impact on youth entrepreneurship in South Africa (Vhembe District), using questionnaires. To measure the financial literacy level the study used responses on mathematical literacy, computer literacy, financial attitude, knowledge and financial behavior. The results reveal that 51% of the respondents have their level of mathematical literacy above average and for 61% of respondents the level of computer literacy is above average. Based on these results the author concludes that the level financial literacy among youth entrepreneurs in Vhembe District is above average, however the author acknowledges that the sample used for this study is too small, therefore the results cannot be generalized, which calls for more research to assesses financial literacy level among youth entrepreneurs and other consumers in general.

Sarma (2010) argues that while the importance of financial inclusion is widely recognized, the literature lacks a comprehensive measure that can be used to measure the extent of financial inclusion across economies. An index will necessitate comparisons across countries or regions. The paper proposed a multidimensional index of financial inclusion (IFI) that captures information on various dimensions of financial inclusion in one single number lying between 0 and 1, where 0 denotes complete financial exclusion and 1 indicates complete financial inclusion in an economy. The proposed index is easy to compute and can be comparable across economies. The index can be seen as a great stride towards modeling financial inclusion resulting in more informed decisions on how to address the challenges leading to great financial exclusions, especially in rural communities.

Ardic, et.al (2011) conducted a study on the access to financial services and the financial inclusion agenda around the world using the OLS regression analysis. The results reveal that a large number of adults do not have access to formal financial services, especially in developing countries. This calls for more initiatives to be undertaken so as to build a financial inclusive systems, as accesses to financial services enables the poor to invest in homes, education and small businesses, withstand the impact of economic shocks and manage uneven cash flows and seasonal incomes (Bucker, 2011). Furthermore, (Kefela,2010) argued that financial literacy and basic education should be made more relevant and useful to people's daily lives and development activities , as consumers are currently face with a number of factors such as the financial crisis and to withstand those factors they need to make informed financial decisions.

Chakrabarty (2011) discusses that in an attempt to tackle the problem of financial inclusion in India, the Reserve bank initiated several measures such as persuading state governments for including financial education in the school curriculum; advising banks to setup financial literacy & credit counseling centers in all districts; conducting outreach activities across the country focusing on the twin objectives of financial inclusion and financial literacy in which the top management like directly participate; 160 remote unbanked villages selected by RBI for transformation into model villages characterized by 100% financial inclusion through ICT initiatives and organizing town hall events and release of films on financial literacy among other measures. These measures greatly helped to reduce financial literacy in India as the banking cover; total villages covered and the number of ATMs increased amongst other achievements.

Martinez (2011) investigated political economy factors that explain increased levels of financial access. The paper employed panel data on 43 nations from 2004 to 2009 to consider several explanations of how political economy factors influence financial inclusion as measured by the number of depositors per 1,000 adults. These factors include levels of autocracy, regime durability, regime transition, legislative and executive electoral competitiveness, and checks and balances. While the study findings indicated that the quality and durability of institutional factors seem to affect the level of physical and technological financial inclusion, infrastructure appears to be the dominant driving force behind higher levels of financial participation. This can be attributable to ergonomics and availability of services closer to where the people stay.

Sajeev and Thangavel (2012) assessed the impact of Self Helping Groups (SHG) on financial inclusion, for nine districts in Kerala, India using clustering techniques. SHG or self help group is a small group of rural poor, who have voluntarily come forward to form a group for improvement of the social and economic status of the members. They symbolize an enduring relationship between the financially deprived and the formal financial system, The results reveal that that there is a positive link between SHG bank and the study further indicates that financial education can enhance the link between SHG banking and Financial inclusion as it encourages more people, especial the un-banked to take membership on SHG banking.

Based on literature reviewed, several factors have need identified as central to financial inclusion. These factors are presented in figure 7, with financial literacy as one of them. The factors for a web and their contribution depends on the level of interconnectedness among them, however analysis in this study zero on the impact of financial literacy on financial inclusion, appreciating the fact that it does not work in isolation.

Figure 7: Factors that affect financial Inclusion

Source: Authors' sketch

IV: Methodology and Estimation Techniques

The study employs quantile and OLS regression, for robustness checks, influenced by the works of Koenker and Bassett (1978), Chen (2005); and Sangwan (2008) respectively. The key variables in our model are financial inclusion and financial literacy as discussed in detail below. The models take the form of:

Quantile regression:

$Z = \alpha + \beta X + \varepsilon$

Measuring the effect of financial literacy, X, on financial inclusion, Z. Quantile regression has the added advantage of extending the regression model to conditional quantiles of the response variables, which is very useful as in this case, where extremes are important. This gives a more conditional distribution of the response variable. According to Kuan, 2005 the α^{th} quantile of Z, is equal to $F^{-1}(\alpha)$, where F is the distribution function of the conditional distribution of Z, in both cases given X=x.

With Z, representing the percentage of account holders (number of account holders per hundred people), higher percentiles of Z represent the districts where this number is high, while the lower percentiles represent states where the number of accounts holders per hundred people is low.

Ordinary regression:

Following Sangwan (2008) our model takes the following form:

$$Z = \alpha + \beta_1 X_1 \beta_2 P + \beta_3 O + \epsilon$$

Where Z= financial inclusion measure, percentage of individuals with bank account; X- financial literacy measure; P= per capita income; O= set of control variables, ϵ is the error term.

Discussion of data and variables

In order to examine access to banks in South Africa, the study used the first wave of a national panel study of South African individuals and households which was conducted by the South African Labour and Development Research Unit-2008 National Income Dynamics Study (NIDS). Overall there are 31,170 individuals and 7,305 households included in the survey, representing a 69 percent response rate. Of the 31 170, 29 597 responded to their age and from those who responded 19 785 are above the age of 15 and therefore are adults[§§§]. For the purposes of this paper, the analysis is based on adults who have bank accounts.

Financial Inclusion: A common measure is the percentage of adult population having bank account. Also access to credit is another measure

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[§§§] count if age>0 & age>15
count if age>0

identified in literature. Reasons for exclusion include but are not limited to: Remote, hilly & sparsely populated areas with poor infrastructure and difficult physical access; *lack of awareness*, low income, social exclusion, *illiteracy*; distance from bank branch, branch timings, cumbersome documentation/procedures, unsuitable products, language, staff attitude, higher transaction cost; ease of availability of informal credit ; documentary proof of identity/ address. The data for financial inclusion (having a bank account) was obtained from Eastern Cape Socio-Economic Consultative Council; NIDS wave 1 2008; individual bank websites; IMF and World Bank databank. Table 1 gives a picture of access to banks in South Africa, based on NIDS, Wave 1, 2008. According to this table, about 68 % of South Africans can be considered financially excluded. This is an alarming figure, given the cost to the individual, and the economy of such financial status.

Table 1: Statistics

bankaccess	Freq.	Percent	Cum.
1	4,980	31.96	31.96
2	10,601	68.04	100.00
Total	15,581	100.00	

Financial Literacy can be defined as familiarity with/understanding of financial market products, rewards, risks & make informed decisions – personal financial education & capability to take decisions for one's well-being & avoid financial distress – ability to grow, monitor, effectively use financial resources for economic security of self, family & business – financial markets now very complex, asymmetry of information – informed decision making very difficult. **Financial Education** can be targeted at increasing awareness, alleviate illiteracy and instate individuals into a formal financial set-up. Those excluded from formal financial system need to be educated about banking & need for relationship with banks. Provincial and district level data was obtained from ECSECC database, and survey questionnaires.

Literacy rate: Here for robustness reasons, two variables will be used interchangeably to measure the literacy rate. Firstly the ability to manage money (w1_a_j24_7) by the adult, and then the ability of the adult to read English- since most banks use English as the language of communication. Not knowing English can be intimidating and therefore discouraging for one to approach banks. In dealing with banks, reading English is much important than writing, therefore we choose respondent's reading level in English (w1_a_h38) as the second proxy for literacy level.

Other variables used include population group (race), geographical location, and employment status.

STATA 11 software was used to analyse the data. The results of the regressions are presented and discussed in the following sub-section. Only significant models have been discussed here and the discussion is collaborated to highlight the significance/ lack of, of financial literacy on financial inclusion.

V: Results and Discussion

Quantile Regression results

Percentile	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Coef.	.2349339	.4452735	.4475134	.6321857	.400192	.4615741	.4221021	.7533334	1.314768	1.49052
p-vale	.229	.023	.054	.010	.208	.092	.337	.229	.000	.000

The values of α_1 are positive and increased as the percentile increase. P-values are less than 0.01 for percentile above 90 percent, meaning there is significant positive effect (at 1% level of significant) of literacy percentage on the 90th and 95th percentiles of the conditional distribution of access to bank through bank accounts per 100 people given the literacy rate. If the different districts are ranked with similar literacy percentage, in increasing order of the number of accounts per 100 people, then if a district among the top 10 percent in that list, an increase in literacy percentage can help further improve the financial inclusion in that district (local municipality). Deductively, increase in literacy percentage does not necessarily imply significant improvement in financial inclusion in every district, especially if not part of the top 10 percent districts in terms of access to finance (i.e. financial inclusion).

OLS regression results

Model	Dependent Variable	Constant	Income	Literacy1	Literacy2	Education	R^2
1.	Bank Account	2.027 (0.000)	-.143 (0.000)	.052 (0.000)	-	-.000 (0.313)	0.18
2.	Bank Account	1.901 (0.000)	-.127 (0.000)	-	.078 (0.000)	-.003 (0.000)	0.21
3.	Bank Account	1.869	-.112	.043	.107	-.001	0.23

		(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	

Both measures of literacy have displayed a positive and significant effect of access to banks. Literacy1, being the ability of one to manage money, and thus a better measure for financial literacy will increase access to banks by 5% per unit increase in the measure of the literacy levels. The second measure for literacy, literacy2- the ability to read in English, which can be associated with better education, has a higher impact or about 8%. The R-squared shows that ability to read in English explains better access to banks than ability to manage money.

Contrary to literature, per capita income and level of education has a negative effect on access to bank. The results further indicate that, both literacy measures explain access to banks better, 23 %.

The above regressions results attest to the fact that literacy levels impact on the access to banks.

Survey results: Qualitative analysis

Survey questionnaires were distributed to three local municipalities within Eastern Cape- Peddie; Willowvale (Idutywa) and Cholumna. These are areas that have been targeted by various forms of financial literacy programmes mainly for the youth, women, and school children.

Out-off the 200 respondents, 93 percent said they have opened accounts after receiving some form of financial literacy training. *"… if you don't have someone to talk to you about these things, how do you know what to do … banks and schools are helping us understand better",* female respondent from Peddie. Again knowledge transfer from school children to parents have been rated highly, with most indicating that they become confident in using banks after if they children/ grandchildren understand the services better. This justifies why most financial services providers have been targeting school children with financial literacy programmes, which encompass marketing campaigns.

From the target group, about 62% cited the distance to the nearest bank as a discouragement. The cost for taxi fare, the danger for thieves and time waiting in a queue, were all highlighted as discouraging factors for one to open a bank account. On the same note, about 30% indicate that even though they have managed to open bank accounts, managing and sustaining them is a great challenge- bank fees instead of earning interest was questioned and cited as a great hindrance for keeping money in the bank. "*The banks in South Africa have become* *a luxury and a thing for the well off…"* unemployed youth (Male) respondent in Idutywa community.

On alternatively using technology to cut travelling costs and other related risks (thieves), about 70% indicated that they do not trust banks can handle their accounts well without them getting banks statements from the bank (they are against mobile banking, despite acknowledging its usefulness). However, there is a belief that services like e-wallet have enable many to use banking services without having the hustles of opening accounts with a bank. Such individuals are financially included, but it may be technical impossible to account for such financial inclusion. This challenges our definition of financial inclusion; that of using access to bank accounts. Transfer payments have come out as a significant contributor to financial inclusion, however most of the recipients do not have bank accounts and are generally defined as financially excluded, yet they have access to and use financial services.

VI: Policy Recommendations and Conclusion

The paper's aim was to assess how literacy levels relate and impact on access to banks in South Africa, focusing on Eastern Cape Province. The focus was on testing the impact of literacy level on access to bank and not the determinants of access to banks, therefore the main variables considered are these only two.

It can be concluded that level of literacy is significantly positively related to access to bank by individuals, with much impact coming from literacy as measured by ability to read English. The inequalities created by apartheid are still visible; Africans lag behind with regard to access to banks in South Africa. From a positive perspective, this points to a rich niche market for banks in South Africa in the form of the many unbanked rural populace. However, the measure for financial inclusion has its weakness exposed here; - actually there is more measurement exclusion rather than financial exclusion in South Africa. However, the inclusiveness that is available does not warranty access to loans, for start-up capital (for example).

Being literate helps one make decisions that do not only improve his or her life but the better performance of the economy. This is as such because, access to banks implies savings, savings which will mean loanable funds and therefore more funds for investment and job creation. This cycle will be of great relief to South Africa suffering from pathetic savings culture, high unemployment, and instabilities from the capital inflows compensating for the poor savings rates (especially among households).

From these conclusions we recommend the following:

Financial literacy programmes must be carried across the country with more emphasis being on new technologies being introduced and targeting the younger generation even more in. Banks should be encouraged to improve the existing trainings.

Adult Basic Education and Training (ABET) programme should be given priority and the curriculum should encompassing the changing world of financial sector.

Banks should penetrate rural areas as there exist many unbanked. The penetration should be coupled or preceded with rolling off financial literacy training programmes to boost and instill confidence and better usage of the services.

The reported results should however be interpreted with great care, as bank dormancy was not catered for in our analysis. Also it is imperative to note that it is now five years since the NIDS survey was conducted (second wave recently released may present a platform for comparisons over time) and thus there could be variations with the current status quo, given some stepped up efforts by banks to educate the unbanked population.

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