

# **Adoption of financial technology solutions by unbanked grant recipients in South Africa**

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## **ABSTRACT**

South Africa still has over 40% of its population without access to a full suite of financial services. With the introduction of financial technology organisation (Fintechs) could they improve access to financial services? Grant recipients are a sub-set of this population as they obtain funds on a monthly basis but do not have access to full suite of financial services. To better understand how financial technology can resolve this issue, the unified theory of acceptance and use of technology (UTAUT) was applied to identify what would influence the adoption of a financial technology for grant recipients that are unbanked or underserved. Through various interviews the following was noted:

- Performance expectancy does influence the adoption of a new financial technology service by a grant recipient. In addition the habit and experience of the grant recipients will impact how performance expectancy influences the adoption of a new technology.
- Effort expectancy will influence the adoption of a new financial technology by a grant recipient. However habit and experience will not influence grant recipients effort expectancy for the new technology
- Price value will influence the adoption of a new financial technology by a grant recipient. However the habit and experience of the grant recipient did not impact how price value influenced the adoption of a new financial technology by a grant recipient

Based on the above financial service institutions can better address the needs of the grant recipients and potentially partner with Fintechs that can provide solutions that address all the above.

## DECLARATION

I, Nonhlanhla declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

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Nonhlanhla Tshabalala

Signed at .....

On the ..... day of ..... 20.....

## **DEDICATION**

To Grace and George, I am done now so lets' go play.

## **ACKNOWLEDGEMENTS**

To all whose time made this possible I say “Ngiyabonga”

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# **1. INTRODUCTION**

## **1.1. Purpose of the study**

The purpose of our study is to investigate factors that influence the adoption of a financial technology by social grant recipients that are under-served and unbanked in South Africa.

## **1.2. Context of the study**

### **Banking in South Africa**

The Banking Association of South Africa defines inclusive banking as “access and usage of a broad range of affordable, quality financial services and products in a manner convenient to the financially excluded, unbanked and under-banked; in an appropriate but simple and dignified manner with requisite considerations to client protection.” (“Working Definition of financial inclusion,” 2016)

Financial inclusion remains a focus in South Africa as part of the delivery of Financial Sector Charter, section 8 of the charter deals with access to financial services as this will ensure access to the economy to sectors of the market (Financial Sector Charter, 2002).

In 2017, 15 years after the charter was drafted South African financial service organisation remain committed to this goal and include offerings to those with lower income as part of this commitment.

The introduction of products like the Mzansi account and investment into the banking ATM infrastructure has led to the reduction of the unbanked from 54% in 2004 to 25% in 2014 (FinScope South Africa 2014 Consumer Survey, 2014). This reduction although improving the livelihood of South Africans who are now financially empowered has come at a high cost for the financial services. This is despite investing in the implementation of the Mzansi account with its bundle of

services; a capped price and exclusion of management fees have not been able to ensure its economic success. Users of this financial service have been inactive, closed the accounts or migrated to other products (FinScope South Africa 2014 Consumer Survey, 2014).

Financial services such as Mzansi accounts are typically used for receiving irregular payments and social grants. Once deposits are made, account holders immediately withdraw all funds due to their heavy reliance on cash (Hanouch, 2012). The introduction of these products aimed at the lower LSM's (Living Standards Measure) has yielded low returns for financial services providers (FSPs). This is due to the investment FSPs have made to bank infrastructure, which is evident in the growing number of bank branches, and the investment in the automatic teller machines (ATMs) network in formally disadvantaged areas. Table 1 (from FinScope South Africa, 2014) illustrates these investments.

**Table 1 - Banking investments**

| <b>Legislative initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Commercial initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Tiered Banking</b></p> <ul style="list-style-type: none"> <li>• Dedicated Banks Bill and Co-operative Banks Bill, creating new points of access in the banking system</li> </ul> <p><b>Consumer Credit Bill</b></p> <ul style="list-style-type: none"> <li>• Objective to create a responsible lending environment for micro lending</li> </ul> <p><b>Financial Sector Charter</b></p> <ul style="list-style-type: none"> <li>• Blueprint for the transformation</li> </ul> | <p><b>Launch of Mzansi of 25 October 2004</b></p> <ul style="list-style-type: none"> <li>• Objective to offer basic, affordable banking services</li> </ul> <p><b>Capitec</b></p> <ul style="list-style-type: none"> <li>• Launched current account paying 10% on all deposit</li> <li>• Launched pre-paid debit card in association with Mastercard with Point of Sale(POS) roll-out</li> </ul> <p><b>Teba Bank</b></p> |

| Legislative initiatives                                                                                                                                                       | Commercial initiatives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>of the financial services sector containing very real access targets</p> <ul style="list-style-type: none"> <li>• Membership of the Charter Council established</li> </ul> | <ul style="list-style-type: none"> <li>• Enabled customers to make deposits at supermarket via easyPay</li> </ul> <p><b>Pick ‘n Pay Go Banking</b></p> <ul style="list-style-type: none"> <li>• Operated as division of Nedbank, continues to expand customer base</li> </ul> <p><b>ABSA</b></p> <ul style="list-style-type: none"> <li>• Placing 70% of all new ATMs rolled out (about 400 this current financial year) in previously disadvantaged communities</li> <li>• Created two mobile banks to take banking to the people</li> </ul> <p><b>Standard Bank</b></p> <ul style="list-style-type: none"> <li>• 200 new sites planned mainly in townships</li> </ul> <p><b>FNB</b></p> <ul style="list-style-type: none"> <li>• Rolled out ATMs and mobile branches</li> </ul> |

## **Inclusive Banking**

The banked in 2015 had reached the 77% mark and overall there are now over 80% individuals who are financially included this includes individuals who have access to informal and other formal financial institutions (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). This means South Africa has met the 2008 Financial Sector Charter goals. Focus now needs to be placed more on the usage of the financial products and improved access to savings, insurance and secure lending. Financial service organisations need to review how they serve their market segments, as further investments need to be able to provide improved returns and customer usage.

## **Financial Technology**

The fast paced growth of Fintech's (Financial Technology organisations) globally could drive an improvement in returns with lowering the cost of maintaining infrastructure and an increase in usage across all market segments including current under-served market. In 2014 investment into Fintech grew to \$12.21 billion globally (Julian, James, & Samad, 2014). Fintech's are disrupting the financial service organisations by providing banking products on digital channels and thus are cheaper to use and maintain and do not require the same amount of infrastructure investment as traditional banking does.

An example of how financial technology could bridge the gap, caused by the unbanked and underserved, is the fast paced growth of the use of M-PESA and its impact to the Kenyan economy. The introduction of M-PESA in 2007 has resulted in a 26% improvement to Kenyan's access to formal banking services between 2009 and 2014. 43% of Kenya's GDP is sent through M-PESA (McKay Claudia & Mazer, 2014). This overwhelming support for what was initially just a money transfer service has resulted in a vehicle to drive further improvements in financial inclusion usage in Kenya. Similarly South African based Fintechs like Nomanini and GetBucks can potentially provide access to financial services to the under-served market.

### **1.3. Problem Statement**

The problem statement for this report is to investigate the factors that influence the adoption of financial technology by grant recipients in South Africa that are underserved or unbanked by traditional banking channels.

### **1.4. Significance of the study**

This study provides a guide for FSPs on how they can assist in addressing the financial inclusion agenda in South Africa for social grant recipients.

As the Financial Sector Charter renews its commitment to financial inclusion, we hope that this research will serve as a guideline to identifying the type of products that will ensure further improvement to financial inclusion. As the focus moves to not only just access to financial services but also usage of said products. The results of this research provide an insight into the type of products more suited to the South African context.

In addition, as the growth of Fintechs in South Africa continues, this research may be used by FSPs to better understand the Fintech landscape in South Africa and identify potential Fintech partnerships that will better address the financial inclusion agenda.

Finally, this research study will also empower the currently under-served and unbanked social grant recipients in realising the benefits of how financial technology can improve their financial well-being.

### **1.5. Limitations of the study**

The study is limited to participants in South Africa that earn a monthly grant from the South African Social Security Agency.

The study will focus only on Fintech technologies that fall into the category of “first order retail products and services” as defined by the Financial Sector Charter (Financial Sector Charter, 2002). The charter defines first order retail products as products that provide access to services for transferring cash for

day-to-day purposes, for saving money, for access to credit and insurance. (Financial Sector Charter, 2002)

It will only look at the factors that would influence the adoption of these technologies and will not review the appropriateness of the technologies and operating models used by these organisations.

## 1.6. Definition of terms

| Term               | Definition                                                                                                          | Reference                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Fintech</b>     | “An economic industry composed of companies that use technology to make financial systems more efficient.”          | (McManus, 2016)                     |
| <b>Unbanked</b>    | Consumers who do not have access to any formal transactional banking account.                                       | (Gross, Hogarth, & Schmeiser, 2012) |
| <b>Underserved</b> | Consumers who have access to formal transactional banking account but also make use of informal financial services. | (Gross et al., 2012)                |

**Table 2 - Definitions**

## **2. LITERATURE REVIEW**

### **2.1. Introduction**

South Africa has had limited success in addressing inclusive banking over the past 20 years using banking technology. Although over 80% of the population has access to a bank account, this is not translated to the full participation in the financial market (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). As will be demonstrated in the literature review there have been a variety of interventions from financial sector to try address this gap.

Other developing countries with similar inclusion banking issues have looked at mobile banking to bridge the inclusive banking gap and have had limited successes. The M-PESA<sup>1</sup> example in Kenya is one of the few success stories of financial technology being used to provide financial services to the unbanked.

In South Africa however there has been limited success for similar products. Our literature review further defines what financial technology is and how it can potentially be used to address inclusive banking.

To assist in identifying what the adoption factors could be for these technology solutions, a review of the technology acceptance theories on adoption of various technologies has been conducted and will be used to understand the key influences in the South African context.

### **2.2. Inclusive banking in South Africa**

After 1994 one of the first goals set for the South African Financial sector was to provide access to financial products to all South Africans including previously disadvantaged groups that were kept out of the broader financial market. (Kirsten, 2006)

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<sup>1</sup> define M-PESA - M for mobile, Pesa is Swahili for money

In the years 2004 - 2014 the number of people formally included into the financial sector grew from 50% to 80% (FinScope South Africa 2014 Consumer Survey, 2014). This was due to various interventions arising from the partnerships between government and the financial sector. These interventions formed a foundation of the South African Financial sector.

### **2.2.1. Overview of Inclusive Banking interventions**

The first intervention involved formalising the legal access to credit to those who were previously marginalised. By forming the Micro Finance Regulatory Council (MFRC) and National Loans Register (NLR), the South African government was able to institute policies to lenders that would protect consumers from unfair lending practices and better regulated micro lenders (Kirsten, 2006).

In 2003 the Financial Sector Charter was launched, providing a pact from corporations from across the South African financial sector. The charter set goals across these industries in the following areas “banking services to low income populations, black employment and ownership in the financial sector, and support for black entrepreneurship.” (Kirsten, 2006)

The charter aimed to achieve the following:

- To obtain 80% inclusivity to transactional and saving products to low income households by 2008.
- To increase access to a various suite of financial products including retail insurance, life insurance products and investment saving products.

The Mzansi and South African Social Security Agency (SASSA) accounts are examples of initiatives used to deliver on these goals. Both these accounts are linked to a debit card that give the customers access to all the traditional banking channels at a low rate.

Another government intervention included the promulgation of the National Credit Act in 2006. This act protects the right of the consumer when obtaining credit by ensuring lenders procedures are clear through out the transaction.

Other interventions drafted to create additional opportunities to consumers to be banked include the Cooperatives Banks Act. These are member based financial institutions that are exempt from Banks Act, and the Dedicated Banks Bill. These are the second tier of commercial banking that can provide savings or saving and loans services (Kirsten, 2006).

The combination of these actions have led to a mature financial industry that is able to service 84% of the South African population through various channels. Of the 84% there is still a gap as only 22% of this demographic is adequately served. Adequately served is defined as having a balanced financial portfolio that incorporates products from across 4 categories that allow the consumer to save, insure, borrow and transact (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015).

In addition to the underserved community there still remains a proportion of the South African community that is excluded from the financial sector. Thirteen percent of South Africans still do not have access to any banking and 50% of this population has an income (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). This study reviews how these two types of consumers (50% with no accounts and 78% underserved) can be provided better financial services using financial technology.

### ***2.2.2. Distribution of Financial Services***

Consumers access their financial product portfolios via various banking channels. These include the bank branch; this is the brick and mortar service with access to a human consultant. These services are traditionally the most expensive channels. In South Africa, they are hardest to effectively roll out across all areas with 48% of the unbanked South Africans based in rural areas (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). In earnest, fully addressing inclusive banking by providing access and sustainable usage to a full portfolio of products using this channel is not efficient in South Africa.

Currently, the majority of the banked population makes use of the ATM channel and Point of Sale (POS) channel through the use of a debit card to access financial services. Eighty-one percent of the banked population withdraw money mainly through the ATMs (FinScope South Africa 2014 Consumer Survey, 2014).

South African grant recipients access funds via a SASSA (South African Social Security Agency) card. The use of the SASSA card has also driven an increased use of these channels (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). Although these channels are cheaper than traditional branches for banks, they also require large infrastructure investments. Retailers have also been introduced to banking services ecosystem by the services that can be provided through their POS channel. The introduction of these retailers also expands the financial portfolio of its customer to more than the debit card for transactional banking. The retailer is now able to provide access to credit, insurance and investment opportunities.

The ATM and POS channels however, still has its limitation of being accessible only to South Africans within the more urban areas. With transactions at a POS and ATM costing customer a maximum of R 7.00, consumers still view these services to be priced high (Coetzer, Pascarel, & Reciprocity, 2012). There is an opportunity for providing access via cheaper technology that could lead to cheaper cost for consumers; with 33% of the banked withdrawing all their funds once it is deposited to escape high channel prices (*FinScope South Africa 2014 Consumer Survey*, 2014).

Digital access has grown by 51%, with South Africans having access to smartphones (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). However, this has not translated to an equal use to mobile banking or Internet banking. As of 2015, only 13% of the banked used internet banking and 31% making use of cellphone banking (FinScope South Africa 2015 Consumer Survey Launch Presentation, 2015). Even though South Africa has had this high digital penetration, there are still a high number of mobile users who are not tapping into the financial technology to access their accounts. Forty-four percent of the cellphone users surveyed by FinScope in

2014 reported that it is complicated to use technology for financial activities (FinScope South Africa 2014 Consumer Survey, 2014). Banks are investing heavily to this channel as it is a cheaper alternative to manage consumers and has the potential to reach customers who do not have access to urban infrastructure.

### **2.3. Adoption of financial technology by the under-served and unbanked customer**

Developing countries with similar inclusive banking issues similar to South Africa have placed focus on the introduction of financial technologies to provide access to the financial sector. There are several success stories of how countries like Brazil, Philippines, Tanzania and Kenya have successfully implemented new banking models that move out of the branch (branchless) and engage with customer through mobile financial technologies to transform their financial industries (McKay & Pickens, 2010).

In Brazil agent-based banking has driven branchless banking (McKay & Pickens, 2010). This model places financial technology into the hands of community agents. There are over 71 000 agents spread across Brazil's municipalities. These agents are able to perform various financial transactions including cash withdrawals and deposits (McKay & Pickens, 2010). Like South Africa, Brazil banks are not able to adequately serve the customer in rural areas, as they need to travel far distances to gain access to banking facilities. However, through the implementation of the agent-based banking model, consumers who would typically have to travel for many hours to banks now have agents as part of their communities (McKay & Pickens, 2010). Thus making banking accessible.

Brazil's success is seen as transformational as it has been able to use this model to serve customers who are both under-served and unbanked by traditional banking. According to McKay & Pickens (2010), 25% of the customers who hold accounts with Banco Postal were previously unbanked.

Regulations allowing agents to accept deposits and withdraw cash from remote access points has attributed to Brazil's success with this model. As bank branches have a high level of regulations on them including type of security required and labour laws it benefited banks to enable the agent channel (Porteous, 2006).

In South Africa, there has been attempt to agent-based banking. In 2007, Standard bank launched their inclusive banking strategy by launching Access Points across each of the 9 provinces (Coetzer et al., 2012). The Access Points were seen as a basic branch in the community that provided Standard Bank customers access to the following basics transactions deposits, withdrawals and prepaid purchases (airtime and electricity).

Standard Banks agents were equipped with financial technology that connected them to banking systems. However, the success of this model was limited. This was due to the combination of the mobile technology used to serve the customer at the Access Points, and the technology used to open an Access account. In addition, to the Access Points Standard Bank invested in a salesforce team that were able to open bank accounts through the use of a mobile phone and camera. Through the mobile technology, Standard Bank was able to move to a more beneficial product for their low-income customers. Replacing the limited Mzansi account and providing an alternative for SASSA grant holders (Coetzer et al., 2012).

Banco Postal and Standard Bank were able to leverage the agents to extend their distribution channels. The additional channel provided access to an under-served and unbanked market. Regulations like the South African exemption 17, which does not require proof of address when opening new account. Enabled their customers to open banking products that could provide a balanced financial portfolio including transactional, savings, insurance and credit options.

However, in South Africa, Standard Bank has not been able to translate their Access Account into a truly "transformational" product. Customers on this product only use the account for 2 transactions per month and customers still prefer to travel to branches then to use the mobile banking channel or the

agents at Access Points (Coetzer et al., 2012)

A leader in mobile banking in Africa is the M-PESA in Kenya. Unlike the agent driven model, which is done as an extension of a traditional banking channels, M-PESA relies on the partnership of the telecommunications distribution network and the mobile financial technology to provide customers with access to financial transactions.

The Vodafone partner in Kenya, Safaricom, initially initiated M-PESA as micro credit facility. However, it has become truly transformational with nearly 50% of the adults in Kenya having M-PESA accounts. This is up from only approximately 25% of adults having had bank accounts in 2010 (McKay & Pickens, 2010). Currently they have over 19.1 million customers who make use of M-PESA in Kenya ("Financial inclusion," 2015). Through the use of mobile technology, M-PESA provides customers access to a full bouquet of financial services.

M-PESA links electronic wallets to customers sim cards. This enables its customers to send cash to family and friends in rural Kenya using the digital network thus making this transfer quicker and safer, especially at times of crisis when the transporting of cash is difficult (Morawczynski, 2009). Kenyans are also now able to access other financial platforms through M-PESA on a mobile phone. These include saving accounts with interest, certain insurance products, pension funds, and limited credit facilities (McKay & Pickens, 2010). There are more M-PESA stores than ATMs in Kenya, and aside from the additional services that one can access on M-PESA a customer can do more than just send and receive money using just their mobile phones. (Mas Ignacio, Radcliffe Dan, & Foundation, 2010)

In Kenya where over 80% of the country have access to mobile phones, the transformational success of M-PESA in Kenya is due to the fact that customers view the M-PESA product to be faster, safer, cheaper and more convenient than the traditional channels.

Early mobile banking technology in South Africa like Wizzit and MTN Mobile

Money have unfortunately not had the same level of “transformational” success in South Africa. Both products were in partnerships with banks. Both provided access to the national payment system via a card and access to transfer funds to any account. MTN Mobile Money was also linked to the network provider. However with all this benefit both these products have failed to pull customers that are previously unbanked. Both products were perceived by South Africans to be a great additional solution to banking and not an alternative to current banking solutions.

Over 75% of the WIZZIT customers have another account and both of their prices were found to be higher than the average price of other branchless banking products (McKay & Pickens, 2010). Even though South Africa led the way in providing regulation to cover the collaboration of telecommunications and financial sector this foundation does not seem to have been enough to convince users that these financial technology products are safer, cheaper, faster and more convenient than the current traditional banking channels available.

## **2.4. Financial Technology**

The type of financial technology products available to customers has expanded further than the banking channels ATM, POS, mobile or Internet banking provided by the traditional banks. Over \$12.21 billion has been invested globally in the financial technology (Fintech) industry in 2014 (Julian et al., 2014). This industry has had rapid growth and is now poised to disrupt the banking fraternity as well as the rest of the financial service industry. Figure 2 demonstrates how Fintech’s are disrupting the financial service.

## Evolution of Financial Services with FinTech

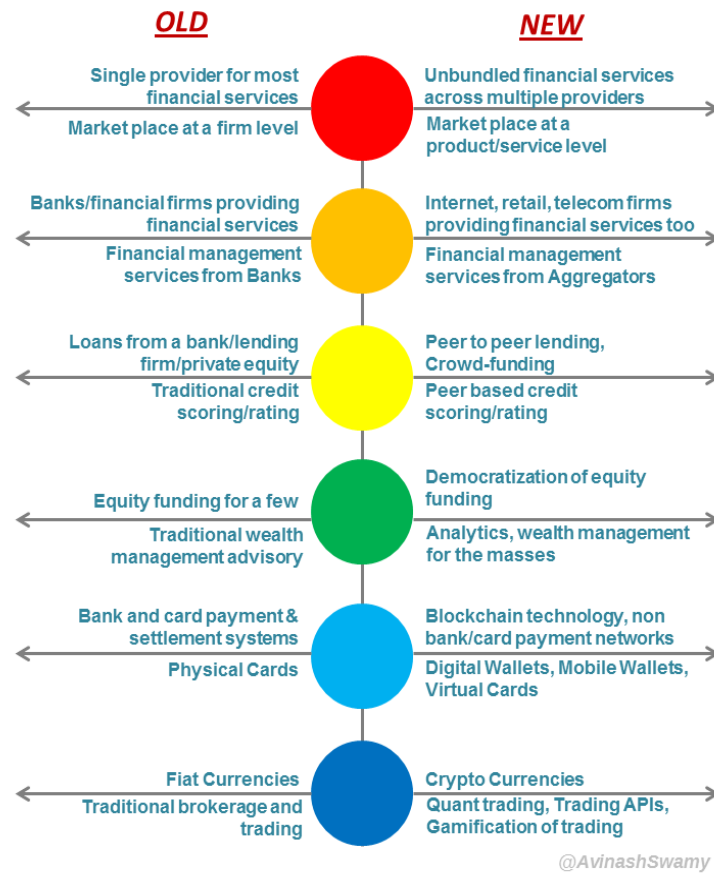
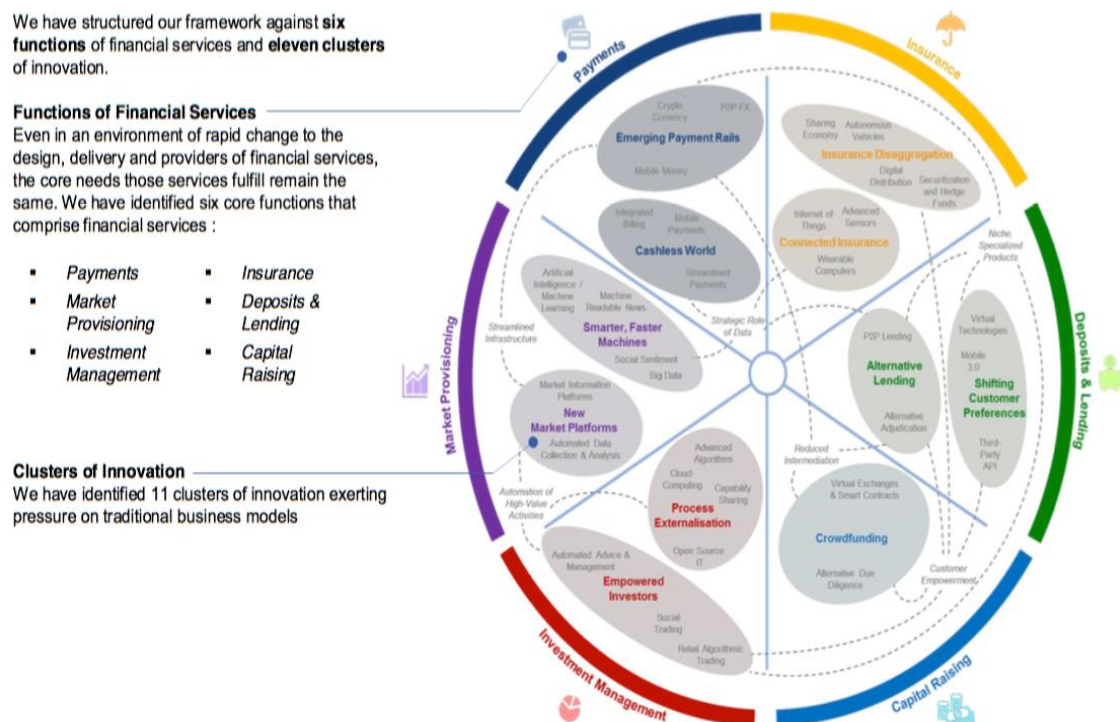


Figure 1 - Evolution of Financial Services with Fintech (Swamy, 2015)

In 2015, the World Economic Forum (WEF) conducted a study that identified 11 clusters of financial technologies that will impact six core functions of the financial services industry (The Future of Financial Services - How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed, 2015). Adoption of these types of financial technologies could be the solution to South Africa's inclusive banking usage issues. Addressing the underserved gap and providing better financial service products for the unbanked. Figure 3 identifies these clusters.



**Figure 2 - (The Future of Financial Services - How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed, 2015)**

This study focuses only on Fintech technologies that fall into the category of “first order retail products and services”. Explain what that is... Factors that will influence the adoption of only the below type of technologies will be reviewed: (The Future of Financial Services - How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed, 2015)

#### 1. Payments

- ☐ Emerging Payment Rails
- ☐ Cashless World

#### 2. Insurance

- ☐ Insurance Disaggregation
- ☐ Connected Insurance

#### 3. Deposits and Lending

- ☐ Alternative Lending
- ☐ Shifting Customer Preferences

#### 4. Capital Raising

- ☐ Crowdfunding

### **2.5. Acceptance of Financial Technology**

The Unified Theory of Acceptance and Use of Technology (UTAUT) states that performance expectancy, effort expectancy, social influence, and facilitating conditions influence the behavioural intention to use a technology (Venkatesh, Morris, Davis, & Davis, 2003).

This theory is a result of a combination of eight individual acceptance theories. Firstly, the Theory of Reasoned Action (TRA), which had the following core constructs: Attitude toward behaviour and Subjective Norm (Venkatesh et al.,

2003). It was applied to an individual's acceptance of technology. Second was to the theory of Technology Acceptance Model (TAM), which states that the Perceived Usefulness and Perceived Ease of Use are used to predict acceptance and usage of information technology drive use of a system (Venkatesh et al., 2003). Third is the Motivational Model (MM), which is a psychology research theory to explain behaviour and to understand new technology adoption and use. Fourth was the Theory of Planned Behaviour (TPB) its core constructs were Attitude toward Behaviour and Subjective Norm both adapted from TRA and Perceived Behavioural Control. Fifth the combined TAM and TPB this model combines TPB and the perceived usefulness from TAM. The sixth model is Model of PC Utilization (MPCU) with six constructs and competing with the TRA and the TPB this model is used to predict acceptance for a range of technologies. Next is the Innovation Diffusion Theory (IDT) it has the following constructs Relative Advantage, Ease of Use, Image, Visibility, Results Demonstrability and Voluntariness of Use and last the Social Cognitive Theory a powerful human behaviour theory that has been used to explain computer utilisation (Venkatesh et al., 2003).

UTAUT was derived in the context of organizational technologies originally, in 2012 it was then translated in relation to consumer acceptance (Venkatesh, Thong, & Xu, 2012a). Based on the translation the factors that influence the usage of technology; Performance expectancy is seen as the level of benefit the customer will derive from using the technology, effort expectancy is seen as the how easy is it for the customer to use the technology, social influence is seen as how important the user feels their family and friends think it is important for them to use the technology and facilitating conditions speaks to perceptions of the support available to use the product. UTAUT also includes variables for the users demographics specifically age, gender and experience. The theory also states that the 3 constructs (performance expectancy, effort expectancy, social influence) influence the behavioural intention which then in combination to facilitating conditions influences technology use (Venkatesh et al., 2012a).

Venkatesh, et al. (2012b) further expanded on the UTAUT to UTAUT2 to specifically to better address consumer acceptance. The following additional

indicators were added Hedonic Motivation which refers to the pleasure obtained from using the technology, Price Value this is added as pricing of a technology for consumers does influence acceptance where it would not matter for employees regarding organisational technology and Experience and Habit these two indicators link the likelihood of the user's future use of the technology based on if this becomes habit over a period of time (Venkatesh et al., 2012a).

The performance of expectancy of the financial technology for users who are currently underserved or unbanked will be reviewed. In research for the adoption of mobile banking conducted in 2010 the finding was this had the strongest link to intention to use the Internet (Wang & Wang, 2010). In the context of this research, this will imply that under-served and unbanked users will view financial technology to be beneficial because it enables them to participate in financial market faster and is flexible, thus making them more productive, this indicator was investigated.

The Effort of Expectancy is thought to indicate if a user finds the technology is accessible in an easy and effortless manner they are more likely to accept, and thus adopt the technology. The theory also finds that this determinant is stronger for females than males (Wang & Wang, 2010). For our study, this can be translated to imply that users who are unbanked or underserved are more likely to accept financial technology if it is easy and effortless to use.

Price Value is an influencer of technology acceptance and usage for older women (Venkatesh et al., 2012a). For this study, we investigated if the price of the financial technology has any influence on the under-served or unbanked consumer.

Habit and Experience is a greater influence for both behaviour of intention to use technology and for acceptance of technology for older men with high experience on technology (Venkatesh et al., 2012a). Translated for this research, we investigated if experience with a similar financial technology influences intention to use and accept new Financial Technology.

Based on the above the following are the propositions for this research will test

for.

**Proposition 1a** – Performance expectancy will influence the adoption of a new financial technology service by a grant recipient.

**Proposition 1b** – *Habit and Experience of the grant recipient will impact how performance expectancy will influence the adoption of a new financial technology service by a grant recipient.*

**Proposition 2a** – Effort Expectancy will influence the adoption of a new financial technology by a grant recipient.

**Proposition 2b** – *Habit and Experience of the grant recipient will impact how effort expectancy will influence the adoption of a new financial technology service by a grant recipient.*

**Proposition 3a** – Price Value will influence the adoption of a new financial technology by a grant recipient.

**Proposition 3b** – *Habit and Experience of the grant recipient will impact how price value will influence the adoption of a new financial technology service by a grant recipient.*

## **2.6. Conclusion of Literature Review**

The South African financial service industry has placed focus on ensuring a high level of inclusivity. However even with 80% reached for banking; true inclusivity with portfolio balanced usage has still not been achieved.

Various interventions have been attempted in South Africa including, the linking of a banking product to the SASSA grant. However, this has not yielded transformational success. Kenya and Brazil have been able to use alternative channels. For Brazil this has been the agent banking model and for Kenya the M-PESA mobile banking offering. Both models have been attempted in South Africa with limited success.

Even with the high adoption of mobiles in South Africa this has not translated to the under-served and unbanked moving to these channels. As financial technology industry expands and more alternative solutions are created a better understanding of factors that drive technology adoption should be unpacked.

UTAUT2 is an updated technology acceptance model for consumer technology. It provides an overview of key indicators for technology adoption. This model is a result of a combination of eight other theories that provide insight into user behaviour and preference when it comes to adopting technology. Based on this, the aim of this research report was to test what are the key influences for adoption of financial technology for grant recipients who are underserved or unbanked.

**2.6.1. Proposition 1a** – *Performance expectancy will influence the adoption of a new financial technology service by a grant recipient.*

**2.6.2. Proposition 1b** – *Habit and Experience of the grant recipient will impact how performance expectancy will influence the adoption of a new financial technology service by a grant recipient.*

**2.6.3. Proposition 2a** – *Effort Expectancy will influence the adoption of a new financial technology by a grant recipient.*

**2.6.4. Proposition 2b** – *Habit and Experience of the grant recipient will impact how effort expectancy will influence the adoption of a new financial technology service by a grant recipient.*

**2.6.5. Proposition 3a** – *Price Value will influence the adoption of a new financial technology by a grant recipient.*

**2.6.6. Proposition 3b** – *Habit and Experience of the grant recipient will impact how price value will influence the adoption of a new financial technology service by a grant recipient.*

### **3. RESEARCH METHODOLOGY**

This chapter will be used to describe the methodology used to obtain the results for this research report. We also discuss the rationale behind the chosen methodology as well as our research sample. Finally it will indicate the level of validity and reliability of the proposed study based on the data collection and analysis processes to be used.

#### **3.1. Research methodology / paradigm**

To address the propositions in chapter 2 the qualitative method was used. This methodology is more suited for research that requires understanding participant's behaviour through observation of their various experiences (Creswell, 2013). To address each of the propositions it will require engaging with impacted participants and through face-to-face interaction interpreting what influences their adoption of the financial technology solutions.

As the concept of financial technology is a new one, the participants of this research would not be familiar with this concept and thus the use of this methodology will best suit engagements with this population to understand what their drivers would be to accept financial technology. The propositions tested are complex topics and are easier to explain in person and feedback on each of the drivers required the flexibility that this methodology allows.

#### **3.2. Population and sample**

##### **3.2.1. *Population***

This sample consisted of South African's that receive the SASSA grant. Furthermore, this population is underserved and unbanked enabling us to better understand their drivers to start using financial technology. Grant recipients are given an option to either obtain their monthly funds via their personal bank account or via SASSA pay-out centre. For this research the grant recipients

who obtain funds directly to a personal account were identified as underserved and those who collect funds from a SASSA pay-out centre were identified as unbanked. Participants were informed that this research would not impact their current grant pay-outs and that all information shared would be kept private.

### **3.2.2. *Sample and sampling method***

A convenience sample will be used to select South Africans who currently receiving a SASSA grant. This group of consumers is an easily identifiable group of South African's who obtain funds on a monthly basis and are either underserved or unbanked. Interviews were held with 14 participants to test the propositions identified.

### **3.3. Procedure for data collection**

Unstructured interviews were arranged with participants. The interviews were scheduled for 30 minutes with each participant at a convenient location. The interviews were be voice-recorded, and were permission was granted, supplementary hand-written notes were taken. Although the interviews were open-ended, guidance questions have been included in Appendix A.

### **3.4. Data analysis and interpretation**

Data from each of participant was analysed using thematic analysis. This type analysis requires the identification of themes and sub-themes from the interview transcripts (Bryman, 2015). Based on themes and sub-themes identified the research report identified key influences and blockers for using financial technology to meet each of the participants financial transactions. Through this analysis each of the propositions will be tested and concluded upon. Expand further on the themes and subthemes?

### **3.5. Limitations of the study**

This study focuses on a subclass of the underserved and unbanked population, that is, SASSA grant recipients. Therefore, its findings can only be limited to this population. Furthermore, the method used to select the sample was highly reliant on the availability as well as willingness to participate of the members of the targeted group. Therefore, the comparison of our results for comparison with other researches with larger samples and similar demographics is limited.

### **3.6. Validity and reliability**

#### **3.6.1. *External validity***

As external validity refers to the level at which the study can be generalised across the full population (Bryman, 2015). Our study has limited external validity due to the sample size and the sample demographic, that is, South African grant recipients. The propositions being tested are based on theory that remains stable and trustworthy as it meets each of the following criteria; UTAUT is a credible source; transferable theory, dependable and can be confirmed. The sample of participants used to test the propositions is based on a South African context and are limited social grant recipients. This sub-section of population, however, was selected across gender, sex and age, allowing this research to be able to be generalised across others with similar demographics.

#### **3.6.2. *Internal validity***

Internal validity was achieved by testing propositions based on a well-developed Unified Theory of Acceptance and Use of Technology (UTAUT). Based on this, we met the requirement for internal validity which refers to being able to match observations to theoretical ideas (Bryman, 2015). This research's propositions were tested through the interviews of each participant to better understand the level of preference for users that are underserved or unbanked.

### **3.6.3. *Reliability***

Reliability of a research report refers to the ability to be able to replicate the research results (Bryman, 2015). The result for are based on various engagements from an easily identifiable sub-section of the population to test propositions based on a well researched theory. Based on these two factors, we believe our results to be reliable.

## 4. PRESENTATION AND DISCUSSION OF RESULTS

### 4.1. Introduction

In this chapter the results as well as an in-depth analysis of these results in comparison to similar studies are discussed, an overview of the participants of our study and their feedback is also presented.

During the period December 2016 and January 2017, 14 grant recipients were interviewed. The recipients were selected a part of a sample of convenience and were mostly from Gauteng and volunteered to be part of the interviews.

An overview of the respondents:

- Gender of the respondents:
  - 10 female
  - 4 male
- Age groups
  - 1 below 20 years
  - 6 between 20 and 30
  - 4 between 30 and 40
  - 3 between 70 and 80
- Types of grants received:
  - 9 receive the Child grant
  - 3 Pension grant
  - 1 Foster Care grant
  - 1 Disability grant

- Types of cellphones (potential financial technology channel) currently used
  - 6 Smart phones
  - 8 Feature phones

## 4.2. Results pertaining to how performance expectancy will influence the adoption of financial technology

Each of the respondents was asked how they would rate the influence of performance expectancy for their current use of a financial technology service to purchase airtime. Next each was asked to rank performance expectancy in influencing the adoption of a new financial service to complete other financial transactions.

### 4.2.1. Feedback on current use of technology service for airtime purchase

Each of the grant recipients were asked to rate from 1 – 5(1 = poor and 5 = excellent) how they thought the performance of the financial technology service for the purchasing of airtime was.

Below is the summary of the responses from the recipients. Refer to Appendix C for the detailed results.

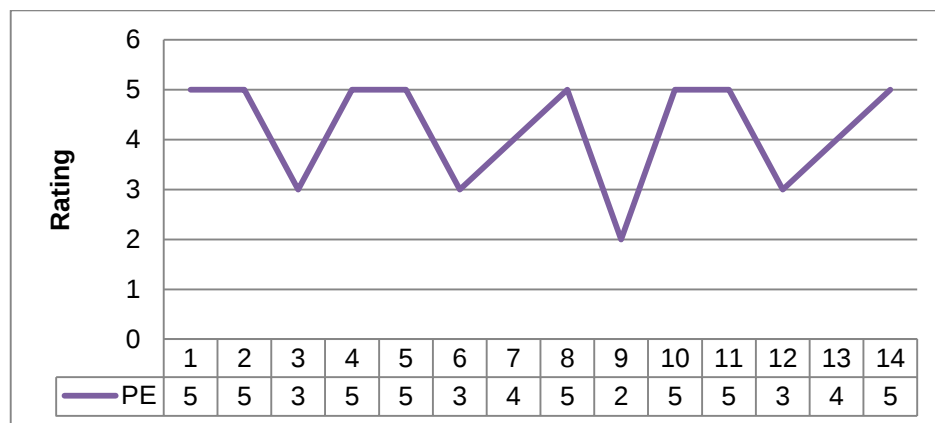
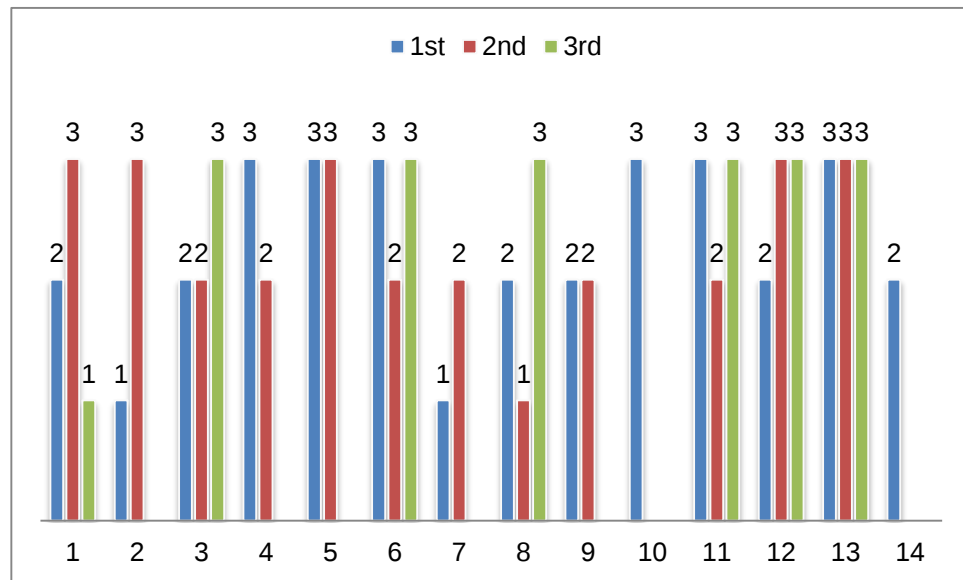


Figure 3 - Performance Expectancy current financial technology

### 4.2.2. Feedback on the adoption of a new financial technology service

Below is the overview of the feedback received when asked to rate out of three, between performance expectancy, price value and ease of use, where they thought performance expectancy ranked if they were to adopt a new financial

technology service similar to the one used to purchase airtime. Each of them were asked to rank performance expectancy for potentially adopting this new service for three or less examples based on their current use of the grand funds received:



**Figure 4 - Performance Expectancy for new financial technology**

#### ***4.2.3. Discussion pertaining to performance expectancy influence in the intention to adopt a new financial technology***

The average ranking for performance expectancy was 4.2 for a known financial technology. This indicates that when the grant user is familiar and has experience with the performance expectancy ranks high. The users mostly trusted the service with their funds and trusted that the service will always be functioning. Respondent number 9 however still preferred the use of cash to purchase airtime and did not fully trust the airtime purchase service when converting airtime to data bundles. Based on this she ranked the services the lowest for performance expectancy. It can be concluded that experience has a positive impact on the users performance expectancy for the financial technology as the more comfortable (high experience) the user had been with using the service the more confident they were on the performance of the service.

It was further noted that of the 14 responses the majority of the respondents ranked the performance expectancy lower (second or third) for a new financial technology service. When asked why they ranked this to be lower the participants feedback saw performance of this new service as result of the price and ease of use. Some of the participants also felt that if the price was right and if it was an easy to understand technology service, how well it performed was an expected outcome. These assumptions were based on past experience with the similar technology.

However it must be noted that the users with the least experience with the existing technology were concerned with the security of this new service and thus ranked the performance higher. However as the most of the users had long term experience with the known cellphone airtime purchase service a move to new service that used similar concepts they trusted that its performance would be of the same high quality as rated in the first question and thus rated it lower than the other influences. For respondent 9 who ranked performance expectancy lowest for the known airtime purchase technology, she linked the performance expectancy of the new technology service with requirement for it to have additional security features. This highlighted the fact that she needed to trust the new technology in order to influence adoption.

When compared to the findings from past UTAUT2 studies where they found performance expectancy to be an important factor to determine adoption of new technology (Wang & Wang, 2010). In this research we found that due to the prior experience on the technology this meant the performance expectancy of service was no longer the key factor leading to the decision to adopt a new technology. This effect further supports the findings that the level of experience user's have will influence the intention to adopt a new technology (Venkatesh, Thong, & Xu, 2012b). The more experienced the user with the technology the less effect the behavioural intention will have on adoption of the new technology.

Based on this we are able to support proposition 1a that the performance expectancy will influence the adoption of a new financial technology service by a grant recipient and we are also able to support proposition 1b that the habit

and experience the grant recipients has will impact how performance expectancy influences the adoption of a new technology.

### 4.3. Results pertaining to how effort expectancy will influence the behavioural intention to use financial technology

Each of the respondents was asked how they would rate the influence of effort expectancy for their current use of a financial technology service to purchase airtime. Next each was asked to rank effort expectancy in influencing the adoption of a new financial service to complete other financial transactions.

#### 4.3.1. Feedback on current use of technology service for airtime purchase

Below is the overview of the feedback received from the Grant recipients when they were asked to rank from 1 - 5 how they thought the ease of use of the financial technology service for the purchasing of airtime. Refer to Appendix C for the detailed feedback from the respondents.

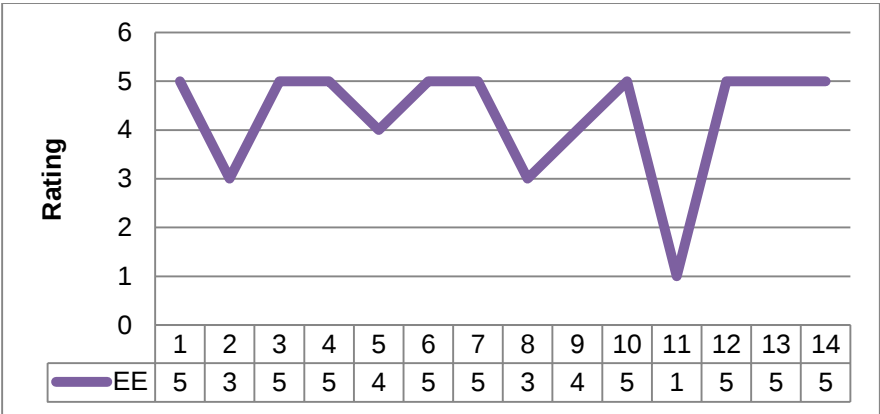
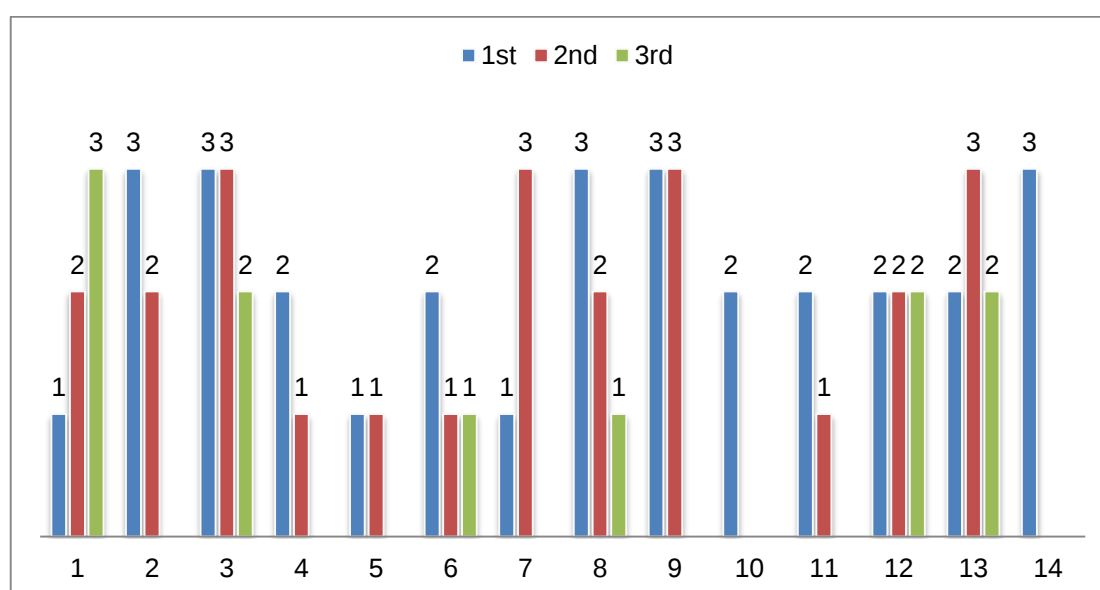


Figure 5 - Effort Expectancy for current financial technology



#### 4.3.2. *Feedback on the adoption of a new financial technology service*

Below is the overview of the feedback received when asked to rate out of three, between performance expectancy, price value and ease of use, where they thought ease of use ranked if they were to adopt a new financial technology service similar to the one used to purchase airtime. Each of them were asked to rank performance expectancy for potentially adopting this new service for three or less examples based on their current use of the grant funds received:



**Figure 6 - Effort Expectancy for new financial technology**

#### 4.3.3. *Discussion pertaining to ease of use expectancy influence in the intention to adopt a new financial technology*

When asked to rate the ease of use for the purchase of airtime financial technology the grant recipients on average rated the service 4.3 out of 5. The older users noted that with more experience the use of the service had become easier. It was also noted from respondent 2 that the fact that the service required her to use letters and not numbers this added complexity to the technology service as her phones buttons linked several letters to each number button. For respondent 3 the main issue on ease of use on existing technology service was the fact that if she made an error in the option or pin she selected

she would need to restart the process. Both these testimonials echoed the link that ease of use had to the experience/habit of use of the financial technology.

Ease of use was rated second by 10 of the users. This was the highest of the ranks received on average for ease of use. The users stated that by making the service easy to use it would lead to a better performing service. The users also noted that an easy to use service would add value, as it would make the service more convenient. The potential for additional convenience was a major contribution to the high rating for ease of use for current use of technology to purchase airtime and this also translated to the importance for adopting a new technology.

Unlike the result from the performance expectancy the experience from the similar service was not factored in reviewing the adoption of this new service. Instead several users noted that any new services even when similar to the process of purchasing airtime would be required to be easy to understand for them to be influence to adopt it. Respondents 4, 5,6, 7 and 8 specifically pointed out that for them to use a new financial technology service it would need to be easy to use.

Wang and Wang found that effort expectancy was a key concern for individuals to potentially adopt mobile Internet (Wang & Wang, 2010). For this study we agreed with these findings as we found the grant recipients are more likely to adopt a new financial technology if they find it easy to use. Specifically the grant recipient's linked ease of use with convenience. Unlike with the link with performance expectancy the grant recipients did not assume that prior experience with similar technology would determine ease of use. This did not agree with the link found by the Venkatesh, regarding the moderating effect experience has on behavioural intention, specifically the theory that it will be lessen the effect the more the experience (Venkatesh et al., 2012b). One can see this as effect as a result of the fact that the grant recipients do not link ease of use to a new technology like they do the performance of the technology. The grant recipients consider the fact that it will be a new service and that even if it will perform the same way that does not mean the service will easier based on prior experience.

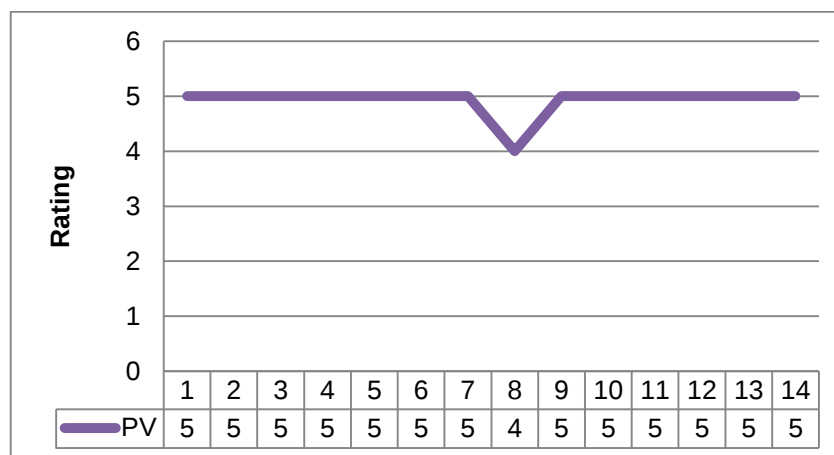
Based on this we can confirm the accuracy of proposition 2a effort expectancy will influence the adoption of a new financial technology by a grant recipient. However habit and experience will not influence grant recipients effort expectancy for the new technology thus not supporting proposition 2b.

#### 4.4. Results pertaining to price value will influence the behavioural intention to use financial technology

Each of the respondents was asked how they would rate the influence of price value for their current use of a financial technology service to purchase airtime. Next each was asked to rank price value in influencing the adoption of a new financial service to complete other financial transactions.

##### 4.4.1. Feedback on current use of technology service for airtime purchase

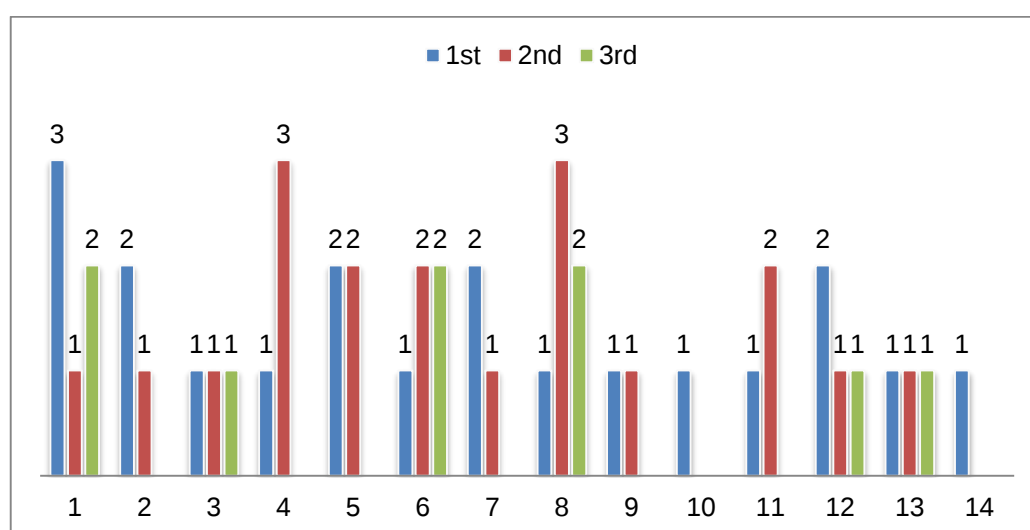
Below is the overview of the feedback received from the Grant recipients when they were asked to rank from 1 - 5 how they thought the price value of the financial technology service for the purchasing of airtime.



**Figure 7 – Price Value for current financial technology**

#### 4.4.2. *Feedback on the adoption of a new financial technology service*

Below is the overview of the feedback received when asked to rate out of three, between performance expectancy, price value and ease of use, where they thought price value ranked if they were to adopt a new financial technology service similar to the one used to purchase airtime. Each of them were asked to rank price value for potentially adopting this new service for three or less examples based on their current use of the grant funds received



**Figure 8 - Price Value for new financial technology**

#### 4.4.3. *Discussion pertaining to price value influence in the intention to adopt a new financial technology*

Grant recipients rated the price value for the service used to purchase airtime 4.9 on average. This was the highest rating across each of the influences. The main difference for this factor was that it also was not influenced by the experience of the user but rather that all technology services used to purchase airtime was free of charge. The users were all aware of services that made you pay extra whether this was for the channel to purchase the airtime or if it was a surcharge charged by a vendor for the airtime voucher but all preferred their current financial service as it was free.

When ranking the price value for a new financial technology 13 users ranked it as a top influence to adopt the new technology. The users noted that it would be important to understand what the cost of the new service would be as even if it were to provide ease, convenience, security and performance. One of the grant recipients noted that it would be important to her to understand if the new service would impact her budget. Another noted that she did not trust billing of the SASSA grant account and would need clearly understand the cost of any service that will be linked to these funds.

So in conclusion based on feedback from the recipients interviewed it was noted that the price value is the most important influence for the adoption of a new financial technology service. This matched the findings noted by Venkatesh, Thong and Xu the price value has a positive influence to the adoption of a new technology(Venkatesh et al., 2012b). The experience of use of a similar technology service had no impact on the level of influence price value had. The main factor for the grant recipient was to firstly understand clearly what it would cost them and secondly that it would not impact their budget.

From the above we are able to support for proposition 3a that the price value will influence the adoption of a new financial technology by a grant recipient. However the study has not been able to support the proposition 3b, the habit and experience of the grant recipient did not impact how price value influenced the adoption of a new financial technology by a grant recipient.

## **4.5. Conclusion**

The grant recipients interviewed ranged from below 20 to over 70. The majority were females who received the child grant. All the recipients had a cellphone and were comfortable with a form of financial technology service used to purchase airtime. Based on this experience each of them was asked to rate performance expectancy, ease of use and price value for the existing service.

Price value was rated the highest and this was due to the fact the services used by the recipients were free and the sensitivity to finance this demographic has. Next was the ease of use of the service, linked to experience with the service, recipients rated the service high based on how easy the service had become over time. Last was the performance expectancy. Even though it was rated the lowest of the three it was rated the 4.4, which is still high. Again this was due to the recipients having experience with the service. The issues noted with the service referred mainly to network issues and usability of the services used.

Based on this it must be noted that experience on the service only impacted the performance expectancy and the ease of use expectancy.

When asked what the most important factor was for the adoption of a new financial technology service that is similar technology service used to purchase airtime the recipients rated price value first, followed by the ease of use and lastly the performance expected from the service.

From these observations one was able to understand how performance expectancy, ease of use expectancy, price value and habit/experience can influence adoption of a financial technology.

## **5. CONCLUSIONS & RECOMMENDATIONS**

### **5.1. Introduction**

In this report, we present solutions that could potentially be the key to providing a truly inclusive financial service. In South Africa, the grant recipient receives money on a monthly basis. However this population remain the most under-served by banks. A review of the factors influencing the adoption of new technology solutions has been conducted in our study. In this chapter, we provide a summary of the major points of our study as well as recommendations based on our findings.

### **5.2. Conclusions of the study**

Based on the UTAUT2 model we were able to identify four factors that could potentially influence the adoption of a financial technology. Using performance expectancy, effort expectancy, price value, and habit and experience, fourteen grant recipients formed part of our study were used to test our propositions. They rated how performance expectancy, effort expectancy, and price value influenced their use of a current financial technology solution. We chose the solution used to load airtime, this was based on the fact that FinScope found that cellphones have had a 90% penetration in South Africa as at 2014 (FinScope South Africa 2014 Consumer Survey, 2014).

The grant recipients rated all 3 factors high. This can be attributed to the fact that the habit and experience with this service was also high. Price Value was rated the highest, followed by effort expectancy and last performance expectancy. Due to the nature of the demographic interviewed and dependency on grant funds it made sense that this was the most important factor for using this service.

Next the grant recipients were asked to rank performance expectancy, effort expectancy, and price value for a new financial technology that would be similar the technology used to purchase airtime. Based on the results it the following was noted:

- Performance expectancy does influence the adoption of a new financial technology service by a grant recipient. In addition the habit and experience of the grant recipients will impact how performance expectancy influences the adoption of a new technology.
- Effort expectancy will influence the adoption of a new financial technology by a grant recipient. However habit and experience will not influence grant recipients effort expectancy for the new technology
- Price value will influence the adoption of a new financial technology by a grant recipient. However the habit and experience of the grant recipient did not impact how price value influenced the adoption of a new financial technology by a grant recipient.

### **5.3. Recommendations**

The study has been able to provide additional guidance to the various stakeholders on what factors can influence the adoption of new financial technology solutions. These right-sized solutions can potentially assist in addressing inclusive banking goals set by financial sector charter.

This can be an opportunity for both financial service organisations and Fintechs in South Africa identify potential partnerships that will better address the financial inclusion agenda.

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## **APPENDIX A**

### **ACTUAL RESEARCH INSTRUMENT**

1. How do you receive the grant pay out?
2. How do you access the funds?
3. How do you spend the cash you receive on a monthly basis?
4. Are you saving money and if you do how do you deposit funds to be saved?
5. Do you have insurance and if you do how do you make monthly payments?
6. Do you have a mobile phone and is it a smart phone?
7. Do you use the phone for buying airtime? Give me an overview of the steps followed? Please rate the below between 1 to 5 (1 being not good and 5 being the best)
  - a) Performance expectancy
  - b) Effort Expectancy
  - c) Price Value
8. If you were to use this same type of technology for (ask each of the transactions from 3) what would your order of preference be for the below attributes?
  - a) Performance expectancy
  - b) Effort Expectancy
  - c) Price Value

## Appendix B

| Interview | Sex    | Age     | Banking Level | Channel used to access grant pay-out | Type of Cellphone | Savings | Insurance | Type of grant |
|-----------|--------|---------|---------------|--------------------------------------|-------------------|---------|-----------|---------------|
| 1         | Female | < 20    | Underserved   | Cash                                 | Smart             | True    | False     | Foster Care   |
| 2         | Female | 70 – 80 | Unbanked      | Cash                                 | Feature           | False   | False     | Pension       |
| 3         | Female | 20 – 30 | Unbanked      | ATM/POS                              | Feature           | False   | False     | Child Grant   |
| 4         | Female | 20 – 30 | Underserved   | ATM/POS                              | Smart             | True    | False     | Child Grant   |
| 5         | Female | 20 – 30 | Underserved   | ATM/POS                              | Feature           | False   | False     | Child Grant   |
| 6         | Male   | 20 – 30 | Underserved   | Cash                                 | Smart             | True    | False     | Pension       |
| 7         | Female | 20 – 30 | Underserved   | ATM/POS                              | Smart             | False   | False     | Child Grant   |
| 8         | Female | 20 – 30 | Underserved   | ATM/POS                              | Smart             | False   | False     | Child Grant   |
| 9         | Female | 30 – 40 | Underserved   | ATM/POS                              | Feature           | False   | False     | Child Grant   |
| 10        | Female | 70 – 80 | Underserved   | POS                                  | Feature           | True    | True      | Pension       |
| 11        | Male   | 20 – 30 | Underserved   | ATM/POS                              | Feature           | False   | True      | Disability    |

|    |        |         |             |         |         |       |       |              |
|----|--------|---------|-------------|---------|---------|-------|-------|--------------|
| 12 | Male   | 30 – 40 | Underserved | ATM/POS | Feature | True  | True  | Foster Child |
| 13 | Female | 30 – 40 | Underserved | ATM/POS | Feature | False | False | Foster Child |
| 14 | Female | 30 – 40 | Underserved | ATM/POS | Smart   | True  | False | Foster Child |

**Table 3 - Grant Recipients interview overview**

## Appendix C

**Table 4 - Performance Expectancy for current technology**

| No | Rating of Performance expectancy | Comment                                                                                                                                                                                                                                                                                                    |
|----|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | 5                                | Airtime bought via banking USSD service. Able to buy both airtime and data bundles via account as deposits all cash to bank account. Additional comments on the service included that it was very good, speedy, saved time and convenient. Allows emergency use, convenience and is immediately available. |
| 2  | 5                                | Process is written down as she forgets some of the times. Understand process as has also tried to teach process to her older sister (over 80)                                                                                                                                                              |
| 3  | 3                                | Sometimes does not work due to network issues                                                                                                                                                                                                                                                              |
| 4  | 5                                |                                                                                                                                                                                                                                                                                                            |
| 5  | 5                                | Very Reliable                                                                                                                                                                                                                                                                                              |
| 6  | 3                                | Buys airtime via Banking app. Network issues does not allow direct access to app when required.                                                                                                                                                                                                            |

| No | Rating of Performance expectancy | Comment                                                                                                                                                                    |
|----|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7  | 4                                | Buys airtime via app. The banking app is sometimes offline.                                                                                                                |
| 8  | 5                                |                                                                                                                                                                            |
| 9  | 2                                | Prefers to buy airtime cash as does not trust how banking fees work when buying via app. Network issues. When converting airtime to data the airtime sometimes disappears. |
| 10 | 5                                | Always working. Never an issue.                                                                                                                                            |
| 11 | 5                                |                                                                                                                                                                            |
| 12 | 3                                | Network not always working                                                                                                                                                 |
| 13 | 4                                |                                                                                                                                                                            |
| 14 | 5                                |                                                                                                                                                                            |

**Table 5 - Performance Expectancy feedback for new Financial Technology**

| No | First example                                                                    | Second Example                                                | Third Example                                         |
|----|----------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------|
| 1  | <b>2</b><br>Convenience and quick service                                        | <b>3</b><br>Ranked low as it would be new service             | <b>1</b><br>Saving service performance should perfect |
| 2  | <b>1</b><br>Prefers cash because guaranteed it will work and knows it is secure. | <b>3</b><br>Once guaranteed it will work like current service | N/A                                                   |
| 3  | <b>2</b><br>Convenience and no longer required to queue                          | <b>2</b><br>Performance for new services                      | <b>3</b><br>Low ranking as existing service           |

| No | First example                                                                             | Second Example                                     | Third Example                            |
|----|-------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------|
| 4  | <b>3</b><br>If price right and easy then will look at performance                         | <b>2</b><br>Performance of app over app            | N/A                                      |
| 5  | <b>3</b><br>Performance a by product of the others influences                             | <b>3</b><br>Performance a by product of the others | N/A                                      |
| 6  | <b>3</b><br>As the service is convenient the fact that it might not always work negelible | <b>2</b>                                           | <b>3</b>                                 |
| 7  | <b>1</b><br>Performance how well it works                                                 | <b>2</b>                                           | N/A                                      |
| 8  | <b>2</b><br>Speed                                                                         | <b>1</b><br>Always working                         | <b>3</b><br>Performance of a new service |

| No | First example                                                                                                                                                   | Second Example                                             | Third Example |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------|
| 9  | <b>2</b><br>Service should allow for tracking/logging of use as security                                                                                        | <b>2</b><br>Performance of service                         | N/A           |
| 10 | <b>3</b><br>Was mostly worried about how the new service will provide security.<br>It was not an easy choice could not distinguish between ease and performance | N/A                                                        | N/A           |
| 11 | <b>3</b><br>Must perform                                                                                                                                        | <b>2</b><br>New technology are we sure it will always work | <b>3</b>      |

| No | First example                                                              | Second Example                  | Third Example                                                 |
|----|----------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------|
| 12 | <b>2</b><br>If my money being used must this way it must always be working | <b>3</b>                        | <b>3</b><br>It will perform since it is a technology solution |
| 13 | <b>3</b>                                                                   | <b>3</b><br>It will always work | <b>3</b>                                                      |
| 14 | <b>2</b>                                                                   | N/A                             | N/A                                                           |

**Table 6 - Effort Expectancy for current technology**

| No | Rating of Effort expectancy | Comment                                                                                                                                                                                                                       |
|----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | 5                           | Learnt of this service a message received from bank detailing the steps of using the service.<br>Appreciates the fact she no longer needs to queue at shops for these types of purchase. Thinks the steps are easy to follow. |
| 2  | 3                           | Phone has several letters linked to number this makes it difficult to use.                                                                                                                                                    |
| 3  | 5                           | Service is "right"                                                                                                                                                                                                            |
| 4  | 5                           |                                                                                                                                                                                                                               |
| 5  | 4                           | Wonders if there is a better option                                                                                                                                                                                           |
| 6  | 5                           |                                                                                                                                                                                                                               |
| 7  | 5                           | Quick easy to use                                                                                                                                                                                                             |
| 8  | 3                           | Process confusing, if pin is wrong                                                                                                                                                                                            |

| No | Rating of Effort expectancy | Comment                                 |
|----|-----------------------------|-----------------------------------------|
|    |                             | must restart process                    |
| 9  | 4                           | Easy to use                             |
| 10 | 5                           | Easy to use. Understood process well    |
| 11 | 1                           | My kids usually load the airtime for me |
| 12 | 5                           | Easy to us                              |
| 13 | 5                           |                                         |
| 14 | 5                           |                                         |

**Table 7 - Effort Expectancy for a new financial technology**

| No | First example                                                                        | Second Example                                                                       | Third Example                                                       |
|----|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 1  | <b>1</b><br>App and card payments quicker and easier                                 | <b>2</b><br>Must be easy to use                                                      | <b>3</b><br>Ease of use is low since it is a given with new service |
| 2  | <b>3</b><br>Ease of use last if others in place                                      | <b>2</b><br>Effort to use new service                                                | N/A                                                                 |
| 3  | <b>3</b>                                                                             | <b>3</b>                                                                             | <b>2</b><br>Must be easy for new service                            |
| 4  | <b>2</b><br>Ease will lead to good performance                                       | <b>1</b><br>For a new app ease is important                                          | N/A                                                                 |
| 5  | <b>1</b><br>Must be easy, so she can derive benefit of convenience vs. known process | <b>1</b><br>Must be easy, so she can derive benefit of convenience vs. known process | N/A                                                                 |

| No | First example                                                                                             | Second Example                                                                                                           | Third Example                               |
|----|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 6  | <b>2</b><br>Ease of use will lead to convenience                                                          | <b>1</b><br>Must make life easier                                                                                        | <b>1</b><br>Must be easy to use for savings |
| 7  | <b>1</b><br>Worried about not being able to navigate it. Must be easy to navigate                         | <b>3</b><br>If does not perform as current app then will not use. If cheap will adopt even if requires additional effort | N/A                                         |
| 8  | <b>3</b>                                                                                                  | <b>2</b>                                                                                                                 | <b>1</b><br>Ease for new service            |
| 9  | <b>3</b><br>Not worried about ease of use as thinks she can learn and get used to new service eventually. | <b>3</b>                                                                                                                 | N/A                                         |

| No | First example                                                                            | Second Example | Third Example |
|----|------------------------------------------------------------------------------------------|----------------|---------------|
| 10 | 2<br><br>It was not an easy choice as could not distinguish between ease and performance | N/A            | N/A           |
| 11 | 2                                                                                        | 1              | N/A           |
| 12 | 2                                                                                        | 2              | 2             |
| 13 | 2                                                                                        | 3              | 2             |
| 14 | 3                                                                                        | N/A            | N/A           |

**Table 8 - Price Value for current financial technology**

| No | Rank of Price Value | Comment                                                                                                                                                   |
|----|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | 5                   | Pricing options improved from via shops that charge a surcharge for the service but bank does not. In addition discounted price for youth account on app. |
| 2  | 5                   | No cost for service                                                                                                                                       |
| 3  | 5                   | No cost for service                                                                                                                                       |
| 4  | 5                   | No cost for service                                                                                                                                       |
| 5  | 5                   | Would pay if there were cost. Unless there was a cheaper alternative. The max he is willing to pay is 20% of the value.                                   |
| 6  | 5                   | No cost for service                                                                                                                                       |
| 7  | 5                   | No cost for service. App does use data when in use and does not mind that cost as not used regularly. Not willing to pay more than 10% for the service.   |

| No | Rank of Price Value | Comment                                                                                                                                                                                  |
|----|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | 4                   | Not sure of the cost of buying<br>airtime via bank. But thinks its<br>important to know. Thinks bank<br>cost is expensive.                                                               |
| 9  | 5                   | No cost for service. Not willing to<br>pay more than 2% for the service.                                                                                                                 |
| 10 | 5                   | No cost for service. Prefers this<br>service as others services do make<br>you pay but this one does not. If<br>there was a fee would continue to<br>use it but max willing to pay is 5% |
| 11 | 5                   |                                                                                                                                                                                          |
| 12 | 5                   | The cheapest offer                                                                                                                                                                       |
| 13 | 5                   | No cost for service                                                                                                                                                                      |
| 14 | 5                   | No cost for service                                                                                                                                                                      |

**Table 9 - Price Value for new financial technology**

| No | First example                                                                                                                                                                            | Second Example                                           | Third Example                                            |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| 1  | <b>3</b><br>Price irrelevant if easy and performs as expected                                                                                                                            | <b>1</b><br>New service must be cheap price              | <b>2</b>                                                 |
| 2  | <b>2</b><br>Pointed out that it would be important that they do not charge interest for “storing cash”<br>Expects cost of service vs. existing service or cash transaction to be similar | <b>1</b><br>For new service price more important         | N/A                                                      |
| 3  | <b>1</b><br>Fears using any additional (mobile) services with grant due to how they charge for it. Security and pricing very                                                             | <b>1</b><br>Not willing to pay more than current service | <b>1</b><br>Not willing to pay more than current service |

| No | First example                                                                 | Second Example                                                                                              | Third Example                                                      |
|----|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
|    | important                                                                     |                                                                                                             |                                                                    |
| 4  | <b>1</b><br>Cost most important                                               | <b>3</b><br>Willing to pay for service but not more than R20 for R100 service. Linked to cost of airtime.   | N/A                                                                |
| 5  | <b>2</b><br>Costs must within 10% of value                                    | <b>2</b><br>Costs must within 10% of value                                                                  | N/A                                                                |
| 6  | <b>1</b><br>Price must be right as all linked to an account must have savings | <b>2</b><br>Max value she is willing to is 10% of value. Could not distinguish between performance and cost | <b>2</b><br>Must not be expensive to use. 10% of value is the max. |

| No | First example                                                                                                     | Second Example                                                                        | Third Example |
|----|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------|
| 7  | <b>2</b><br>Most willing to pay R10 of R100.<br>Concerned about charges                                           | <b>1</b><br>Will only consider use if priced right and will not affect current budget | N/A           |
| 8  | <b>1</b><br>Price is important                                                                                    | <b>3</b>                                                                              | <b>2</b>      |
| 9  | <b>1</b><br>Cost must not be higher than current cost. For total of R280 not willing to pay more than R10 and R15 | <b>1</b><br>Cost of new service                                                       | N/A           |
| 10 | <b>1</b><br>Pricing must be consistent to current service no charges                                              | N/A                                                                                   | N/A           |
| 11 | <b>1</b><br>Will it impact my                                                                                     | <b>2</b>                                                                              | N/A           |

| No | First example                                    | Second Example | Third Example |
|----|--------------------------------------------------|----------------|---------------|
|    | budget?                                          |                |               |
| 12 | 2<br>If the service works I<br>can pay small fee | 1              | 1             |
| 13 | 1                                                | 1              | 1             |
| 14 | 1                                                | N/A            | N/A           |