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Defining the Value Proposition for a Digital Bank in South Africa

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679124

A research article submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration

Johannesburg, 2019

Protocol number: WBS/BA679124/289

Declaration

I, Christopher Manos Yannakakis, declare that this business venture proposal 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 in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

_____

Christopher Manos Yannakakis

Signed at .....

On the ..... day of 2019

Dedication

This research is dedicated to my parents, my brother and Dominique for their love, support and encouragement. From being admitted into ICU to completing my master's research, I would not have been able to do it without all of you.

Acknowledgements

The following Applied Research Project would not have been completed without my supervisor, Tokelo Ramotala. I would like to thank him for his encouragement and support during my work on this assignment.

I would like to thank a very special group of people who helped me overcome a number of challenges in my studies namely; Brett, Gavin, Kate, Nitosh Ryan and Trent.

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Supplementary Information

Project format:	Research article
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	Consistency matrix
	Questionnaire
	Raw data

Abstract

South Africa is on the cusp of embracing digital banking in 2018. This research aims to define customer value from digital banking offerings making use of the Value Proposition Canvas for future reference of other digital banks wishing to enter into a South African market.

The purpose of this study is to define a value proposition for a digital bank within South Africa. The significant golden thread that should be taken from the following research article is that there is potential in South Africa for a successful digital bank and the following will explain what exactly customers require from a digital bank.

The significance of this research is limited to the South African market to assist banks in redefining their digital offerings as well as to gain customer insights with regards to expectations of a digital bank. There is very limited academic research relating to digital banks and their customer value propositions currently in South Africa.

The methodology used was quantitative research through the means of an online survey that was sent out to the random respective population sample via email. This yielded the major finding of perspective customers prefer to switch from their bank provided value derived in the form of cost, convenience and efficiency was provided by the digital bank.

In conclusion, it was found that further research into the field of value generation in terms of low cost, efficient service and added convenience should be explored.

Keywords

Digital Bank, Value Proposition Model, South Africa

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1 Introduction

1.1 Purpose of Study

The purpose of this study is to define a value proposition for a digital bank within South Africa. Furthermore, the study will seek to address from a customer's perspective, what is required from a digital bank. This will define what is required from a digital bank in South Africa in order to be successful and sustainable according to potential customers.

1.2 Context of Study

According to an article by McKinsey, the digital revolution in banking has just begun, whereby a number of traditional banks currently offer high-quality mobile and web applications (Barquin & Vinayak, 2016). A trend which is starting to emerge is where a person no longer physically enters a bank: this includes everything from opening a bank account to resolving credit-card billing disputes.

In order to understand the macroeconomic environment for a digital bank within South Africa a macro analysis is required to provide an overview of the current state. The following are a result of the analysis:

Political - There is currently immense political instability in South Africa. However, investor confidence has increased with the election of Cyril Ramaphosa as the new ANC president.

Economic - Currently there is a slowing economic growth in most African economies owing to weak commodity prices. Furthermore, there is a depreciation across all the major African currencies.

Social - At present there is proactive social leadership integrated with business through affordable house financing. Additionally, rapid urbanisation in Africa has led to an increase in potential customers that did not exist less than a decade ago.

Technological - The South African banking environment has seen rapid growth in digital technologies particularly in Forex and securities trading.

Legal - South Africa currently has one of the most mature regulatory frameworks across Africa. This is witnessed as all banks are required to implement compulsory regulatory training to ensure risk and regulatory compliance.

One can observe that due to the above macroeconomic factors, digital banking in South Africa will only benefit the current population as the need for most cost-effective banking is a high priority.

Consumer banking in South Africa is labour intensive with traditional banking having several associated costs which in turn are passed down to the consumer. There is a major push towards the growth of technology in order to reduce cost. These costs are not only the operating costs of maintaining a traditional brick and mortar bank but also the related costs to which consumers are exposed, which include travel expenses as well as opportunity costs. Opportunity costs may present themselves in the form of consumers having to leave their workplace in order to apply for a bank loan or even open an account. These opportunity costs present themselves in the form of lost working hours, a decline in productivity, travelling costs and different security risks.

South Africa is largely a cash-based economy and, according to PYMNTS.com (2017), as much as 37% of South Africa's 55 million have access to smartphones, however using their smartphones to make payments isn't their default choice. This statistic is an indication for growth within this sector. This statistic doesn't not account for adults whom have indirect access to a smartphone via a family member or community member.

The golden thread that should therefore be taken away from the following research is that there is potential in South Africa for a successful digital bank and the following will explain what exactly customers require from a digital bank.

More and more South Africans have access to smart devices with internet connectivity. Smart devices are becoming a lot cheaper even though the price of

data currently remains relatively high compared with other countries on the continent. However, there is a view that the cost of data may decrease soon (Dazela, 2018). An example of smart devices becoming cheaper is that of the current offers at FNB. According to BizNew's Gareth van Zyl's article; *Opening a bank account with just a selfie – here is FNB's latest innovation* (17 May 2018), One can sign a contract with FNB for a smart device for R59.00 per month over a period of 24 months. This is nearly 20% less than their nearest competitor as indicated on FNB's website. This allows for a portion of citizens who did not have access to smart devices or internet connectivity previously to gain access and to be able to bank digitally, thus opening more of the unbanked market to become potential customers.

With the increase in connectivity in South Africa, new channels are being explored to offer new platforms for banking. Coupled with this, many South African citizens are price sensitive with regard to banking fees, thus forcing to be innovative in their ways of reducing expenses that are deemed unnecessary in the consumers' eyes. One such cost reduction is to entirely do away with "brick and mortar" branches and develop an entirely digital bank. This means that there is no longer the need for branch staff, rentals and other associated overhead costs of running a bank branch. Furthermore, the increase in popularity in Cryptocurrencies has also increased awareness for banks to reduce their operating costs in order to compete in this market. According to FNB's digital strategy (Clark *et al,* 2012) the bank had received a boost in sales due to improved efficiencies to customers. Jacques Celliers (2012), FNB Chief Executive, explains that FNB's digital strategy aims to disrupt the telecommunications and banking industries with its new digital offerings which include smart devices and data sales.

In 2018 there are several digital banks seeking to enter into the South African market these include TymeBank, Discovery, Post Bank and Bank Zero. Two of these banks come in the form of (A) TymeBank, (which has been bought out by ARC), and (B) Discovery Digital Bank. Both of these banks have already had soft launches within South Africa. TymeBank is making use of "cutting-edge technology at its self-service kiosks to enable authentication of an individual, verification of an address which then allows them to transfer money easily", TymeBank (2017). TymeBank will look to

disrupt the current banking industry with their use of “cutting edge” technology. Their differentiator is the that they can offer the opening of a bank account and the issuing of a bank card within five minutes. The FICA requirements are completed through their kiosks which have been linked to the department of home affairs. This in turn, leads to more customers being registered on a daily basis.

In addition to TymeBank, Discovery’s digital bank was the second of the two banks to get their banking licence for the first time in two decades. Discovery’s strategy is less well known; however, it can be predicted that Discovery will strive to meet customer needs and shake up the industry. Their adoption of being a behavioural bank as seen in their launch, is their justification for being a market disruptor (Discovery, 2018).

This sentiment was further strengthened in an article written by Shingie Chisoro-Dube of the Centre for Competition, Regulation and Economic Development (CCRED) in May 30th, 2018, where Chisoro-Dube stated that the new entrants into the South African Banking sector would bring about a competitive rivalry in a highly concentrated market. This will result in customers gaining the advantage from banks’ attempting to reduce their costs and change their operating models.

1.3 Problem statement

The primary problem statement can be defined with the following question:

What value do South Africans derive from a digital bank? This question will be answered by answering the sub problems which will include the following:

- What would make a South African customer move banks from a traditional existing model to a bank that espouses a digital model?
- What does a South African customer require from a Digital Bank?
- What characteristics of any bank are valued by a South African customer?

These are a few problem modalities that this report will seek to address. The focus will be placed on the South African customers and their decision rationale for leaving a traditional bank and move towards a bank that operates entirely digitally. Emphasis will be placed on customer needs and requirements from a digital bank.

1.4 Significance of study

The significance of this research is limited to the South African market to assist banks in redefining their digital offerings as well as to gain customer insights with regards to expectations of a digital bank. There is very limited academic research relating to digital banks and their customer value propositions currently in South Africa. Therefore a significant lack/shortage exists on the topic of customer value derived from digital banking in South Africa. The following research carried out by the Centre for Competition Regulation and Economic Development (CCRED) by Chisoro-Dube; Digital Banks: Game-changers in South Africa's Banking Industry (2018) which provided a great starting point for further research. Research that is currently available addresses the current state of affairs of digital banking. The significant focus is placed on an industry definition (Chisoro-Dube, 2018) as well as current trends in the industry (see PWC's *A marketplace without boundaries the future of banking: A South African perspective*). Neither research piece seeks to address the value proposition of a digital South African customer. A further point that needs to be examined is that most academic research focuses entirety on Internet banking and not on Digital banking in its purest form, which would be defined as an economy that is free from physical currency.

This research report will seek to elaborate on the value that can be derived from a digital bank from the customers' points of view and what their specific expectations are of their digital bank. Furthermore, the research will evaluate what features and components that customers will seek from their digital bank. In conclusion, this research seeks to provide a guideline to the prospective South African digital banking market.

1.5 Delimitations of the study

The scope of the associated research article is that it is entirely limited to a sample of existing banking customers, aged between 16 to 60 years old, who make use of internet banking, cell phone banking as well as have access to internet and email capabilities. The location will be within the Johannesburg area of Gauteng as this is

the economic hub of South Africa according to the Gauteng Economic Development Agency (2017). A further limitation is that of hereditary banking which is influenced by parents on their children (Wayman, 2018). This will be further explored in the research to be conducted. In addition, this research article will focus solely on the retail banking segment as opposed to commercial banking and private banking.

1.6 Assumptions

As this study is based on the results of respondents, it will be assumed that all respondents answered the online questionnaire appropriately. The research is also based on current trends that are manifesting in the banking market sector. An assumption is made that if the respondent has access to email, they are electronically inclined and would have the ability to make use of a digital bank. The research makes the assumption that the respondent receiving the survey will be the individual completing the questionnaire.

2 Literature Review

The scope of the literature review will seek to address the South African banking sector and the value that is derived from the current banking services. The literature review will also seek to address what is the current status of digital offerings is in South Africa and whether or not it is a viable proposition that fulfils the needs of the customer.

2.1 Banking Industry

Banking is an overarching phrase that encompasses financial activities performed by a banker on behalf of the bank's customers. Traditional banking has developed and progressed from a manual process of counting monetary exchange to its current form of electronic processes and controls (Halabi et al., 2014; Hassan et al., 2016). Traditional banking is perceived to be a trusted and safe way to bank. Over the years traditional banks have developed an array of different channels for customers to manage their own accounts. Most traditional banks currently have a banking app and

internet banking capabilities. Although these channels have been introduced, the banks still operate as a traditional bank with a large physical footprint of ATMs, branches and readily available bankers and financial advisors (Naidoo, 2018).

Digital banking, on the other hand, is the opposite of traditional banking. There are no branches or ATMs. In addition, there is very limited human interaction between the customer and the actual bank. Core banking systems in the back office make use of robotics to execute transactions, monitor security risks and perform all banking services one would expect from a traditional bank. The notion that digital banking is only perceived as a cheaper alternative is very limiting, as there is a convenience factor that cannot be ignored. One is able to bank anywhere by use of a banking app via a smartphone with internet capabilities. Mobile banking is fast becoming a prerequisite when choosing a bank for most customers (Chisoro-Dube, 2018).

2.2 Digital Banking Introduction

According to Dapp (2014) the digitizing functions and offerings within the financial sector will change and disrupt the banking industry. Modern data analysis methods will be used as routinely as a seamlessly integrated web of all distribution channels. Dapp (2014) further explains that “our lives are becoming increasingly digital. The digitisation of our working and private lives, just like globalisation, cannot be halted.” This provides further reason as to why it is so important for banks to adopt more digital strategies in order to fulfil the needs of the greater digital population.

According to Paananen & Seppanen (2013) value is “about understanding the users and further seeking future opportunities for customers”. Currently in the banking sector, traditional banks have an advantage as they provide human interaction, there is a user fear/mistrust of technology. Users find comfort in a physical institution and they enjoy having tried and tested processes in place. On the other hand, digital banks have an advantage as there are significantly less costs to the consumer, more convenience, 24-hour availability and more life integration across different users’ daily routines.

Furthermore, the value is centrally held, enduring core beliefs, desired end states and a set of goals that guide behaviour.” In order to understand the value that customers desire for banking products and services, one needs to understand what is deemed valuable to a customer. Items such as ease of banking, customer service, internet banking, price, benefits as well as add-ons will be explored.

According to Chisoro-Dube, (2018) digital banking is no longer a mere add-on feature, but a fundamental system of banking where value is now placed on the price which is in contrast to the cost of opening a bank account in a volatile economy. Value is emphasized on the time cost element where all traditional banking activities and processes, historically only available to customers if they visited a branch, are now done entirely online. Furthermore, the costs of opening and maintaining a bank account are significantly reduced as a bank will be able to move away from having a brick and mortar branch.

2.3 Influencing factors for customers

According to Rogers (1995) there are five elements that influence a customer’s level of adoption of innovation. It is believed that relative advantage, compatibility, complexity, trialability and observability are the five elements which would see customers adopt an innovation such as digital banking.

- Relative advantage is the benefit a customer perceives to gain from a digital bank and their offerings, which may be measured in economic terms, social prestige, convenience and satisfaction.
- Compatibility is the perceived benefit of being consistent with past experiences and pre-existing values of current banking capabilities.
- Complexity is the concept that of difficulty to understand. If a banking service or channel is too difficult to understand, this may influence whether a customer decides on moving to a digital bank.
- Trialability is motion of being able to experiment on an innovation such as that of a digital platform without having any repercussions of financial loss.

Trialability plays a role in allowing developers to make design decisions on how to structure the platform or application for customer usage.

- Observability is the concept of which results are observed by the customer as well as other parties expressing similar interest. Knowing that a product performs to the standard expressed by the value proposition, customers are more likely to join the digital bank and make use of the platforms on offer.

Rogers (1995) concludes by explaining that should all five factors adequately represent the product or products on offer, customers are more likely to adopt or engage with the product.

According to Joe M. Bohlen, George M. Beal and Everret M. Rogers (1995), every new technology is being adopted by the environment in accordance to the innovation adoption life cycle (as seen in the figure 1 below).

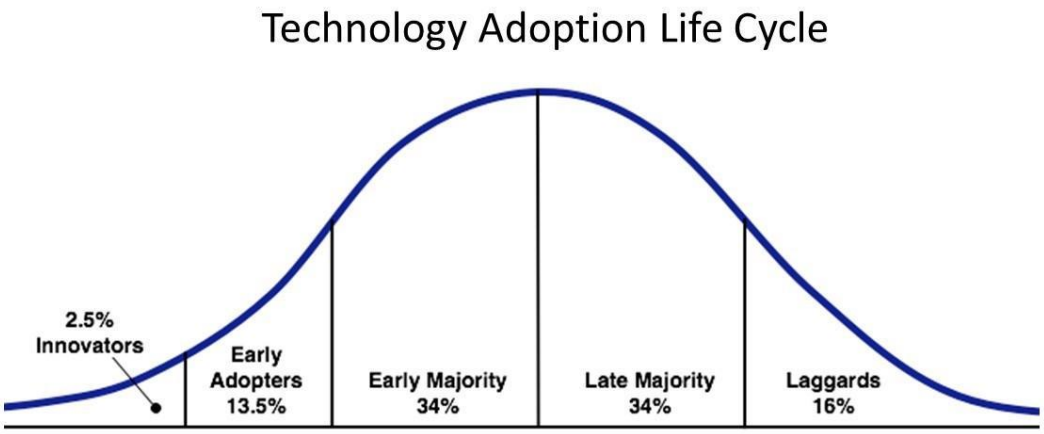


Figure 1: Technology Adoption Life Cycle (Bohlen et al, 1995)

This life cycle categorises users in their propensity to adopt an innovation and are labelled as:

- Innovators - These are the first adopters of innovation. These users are usually willing to take risks and have the financial ability to purchase innovations ahead

of the curve. These individuals are often extremely active socially either by social media or direct contact with friends and acquaintances.

- Early Adopters - These users adopt the innovations after the innovators. Often these users have a high social status and are often imitated, thus disseminating the innovation to the majority.
- Early Majority - Users from this group adopt the innovation later than the adopters and innovators. These users often have an above average social status and can afford the innovations albeit once the prices have reduced slightly.
- Late Majority - Users from this group usually only tend to adopt the innovation much later than the rest of the majority. These users infrequently present any opinion leadership and will often go with the trend. Their financial fluidity is much lower than that of the predecessors.
- Laggards - This group of users is the last to adopt the latest innovations. There is no opinion leadership whatsoever. These users are hugely risk averse to any new trends and will often wait to see what results tried and tested methods produce.

Further to the above mentioned five groups of innovation adopters Rodgers *et al.* (1995) speaks of the Chasm that exists between the early adopters and early majority. According to Rodgers *et al.* (1995) the chasm defines whether an innovation will be a success or a failure. Should the innovation navigate the chasm successfully, the market majority will take to the innovation, thus allowing the company to be successful in their innovation.

2.4 Value proposition

Value is derived in several ways from traditional banking whether it be in the form of security, convenience and service quality. In digital banking, there are several factors from which value is derived. Factors such as convenience as well as security plays a vital role (Momanyi, 2016). Banks package their products according to the value derived for customers, security ensured, exemplary customer service as well as convenient access to the bank at any given time.

2.4.1 Value Proposition Canvas

The Value Proposition Canvas is described as how one creates value for one's customers. It helps a company design products and services that their customers want (Osterwalder et al., 2014). The creation of the Value Proposition Canvas is based on creating Value Propositions for (1) Product & Services - what products/services is the value proposition based on (2) Gain Creators - How are they delivering gains? (3) Pain Relievers - How are they killing pains? Using experience in the area of the customer segments of (1) Customer Jobs (2) Gains (3) Pains (Lindič, Silva, 2011) as seen in the figure 2 below:

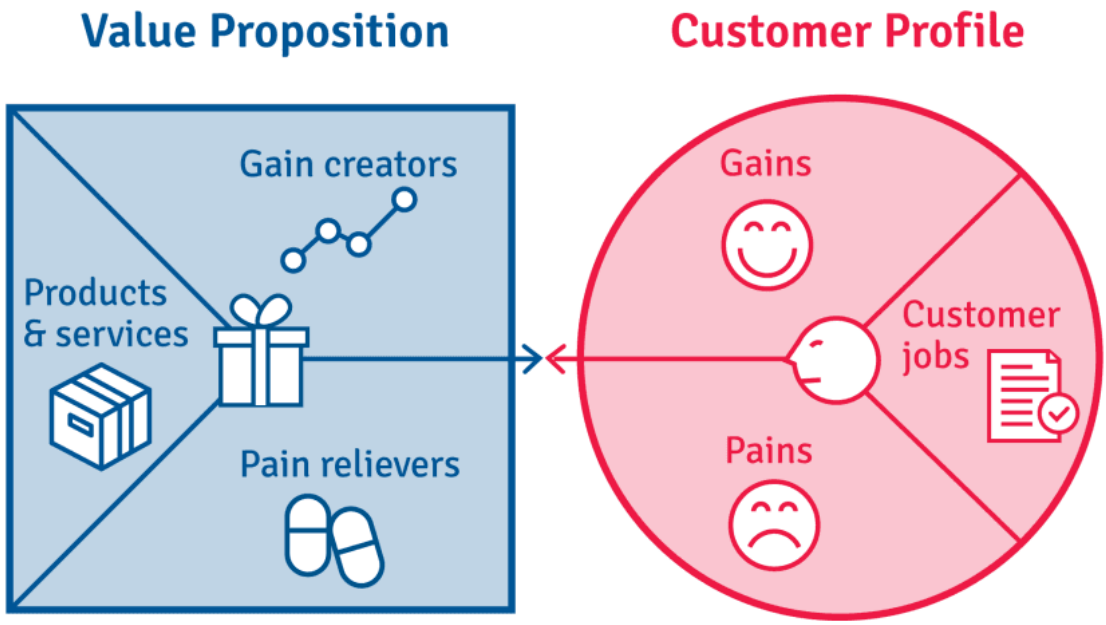


Figure 2: Value Proposition Canvas (Lindič, Silva, 2011)

2.4.2 Digital Banking Value Proposition

2.4.2.2 Customer Jobs

2.4.2.2.1 Effective banking

Customers require effective banking as they look to deposit money and then be able to withdraw it at any time they may wish. Effective banking includes the ability to be assured that their funds are safe and secure in the bank's possession.

2.4.2.2.2 Electronic funds transfer (EFT)

Customers may find value in being able to make EFTs with their bank. Customers may deem it important to be able to make an EFT with ease instead of having to manually withdraw the funds and then make a payment.

2.4.2.2.3 Mobile Banking

Customers may derive value in the form of mobile banking where one is able to conduct banking transactions via mobile phone. As previously mentioned most South Africans have some form of mobile phone and would thus require mobile banking for convenience sake.

2.4.2.2.4 USSD Banking

USSD Banking has become a further channel of which customers use to bank now. Buying airtime and electricity using USSD code has become normal and can be described as a customer job.

2.4.2.2 Pains

2.4.2.2.1 Risk

Security risk is one of the biggest pains for customers when deciding on a bank. A customer will not bank with a bank should they feel their funds are not safe. Customers draw value from the fact that security is a fundamental requirement. Risk also forms

part of physical security. A customer may not feel safe in a bank branch due to its location.

2.4.2.2.2 Cost

Cost is a further pain for customers as banks often place a cost on customer bank accounts in order to maintain security of the account. Banks have high fixed costs such as rent and salaries which are passed on to the customer.

2.4.2.2.3 Convenience

Customers are concerned with convenience when deriving value from a bank. Should it be inconvenient for a customer to locate a bank, find parking nearby a bank or be required to wait in a queue simply to make a deposit or withdrawal, pain is caused.

2.4.2.2.4 Service Quality

Service quality presents itself as a pain, as human error from a bank teller often provides a pain point. An example of this may present itself in the form of a teller not adequately counting coins correctly. This human error would then cause the pain for the customer having to provide evidence of monies deposited. Also human nature and clash of personalities or perceived negative behaviour interacting with staff is avoided.

2.4.2.3 Gains

2.4.2.3.1 Bank fees

One of the gains a customer may expect from a digital bank is that of low transaction and banking fees. Digital banks have less operational costs and fixed costs than most traditional banks and are hence able to offer lower fees. This is a significant gain to customers who are price and cost sensitive.

2.4.2.3.2 Convenience

Customers may seek gains of added convenience when banking digitally as one would theoretically be able to bank from any location provided there is internet connectivity.

2.4.2.3.3 Ease of use

A further gain that a customer may expect is that of ease of use. The digital banking channels should be relatively easy to navigate compared to that of walking into a bank branch.

3 Research Methodology

3. 1 Introduction

This chapter discusses the type of research design, the population, targeted samples, and data collection methodologies, limitations of the study, validity and reliability and data analysis approaches that has been used. The reason for the use of prescribed approach further helps to identify data that has been used to further explain the value derive to customers.

3.2 Research Methodology

The methodology that was used was quantitative research through the means of a survey that was sent out to the respective population sample. The objective of performing a quantitative research analysis was to be able to construct a statistical model in an attempt to explain the findings from the target sample whether a digital bank would succeed in South Africa and what value would be derived from having such a bank/s.

Quantitative research begins with a theory and translates into empirical data through the testing of hypotheses through deductive reasoning. Quantitative research is measured through means of response rate as well as actual responses to questions posed to the target sample.

An advantage of using quantitative research is that it allows for the researcher to analyse, collect and measure data. The researcher is able to conduct more objectivity between the dependant and independent variables. Quantitative research allows for

the researcher to test hypotheses in experiments and analyse the findings with the use of statistics (Miller & Salkind, 1993).

A disadvantage that needs to be noted in quantitative research is that the context of the study may not be communicated effectively. Quantitative research may prove to be less detailed than qualitative research and may miss a desired response from a participant from the sample.

3.3 Research Design

The research design was formulated around descriptive analysis. The research was conducted in a field setting where participants were asked to give their views on digital banking in the form of a questionnaire. (Groenewald, 1986).

The research design followed a quantitative method of explanation with an indirect data source. No other research method can provide broad capability, which also ensures a more accurate sample to gather specific targeted results from which to draw accurate conclusions.

3.4 Population and Sample

Kothari (2004) stated that the population of the study is a combination of respondents, people, events, elements and households that a researcher interacts with to carry out an experiment that he wishes to investigate. The population of this study was comprised of customers of retail banks in South Africa who have access to email and the internet, as these were the preconditions for the research. A retail bank in South Africa is considered to be a bank that offers banking services to customers and small businesses. Retail banking customers are the targeted audience, being the most likely candidates for a digital banking solution in South Africa, as currently digital banks will focus their attention on retail/customer banking (Chisoro-Dube, 2018).

Sampling is the method of selecting some respondents from the population of the experiment in order to complete the research as well as make generalizations about the population.

Nonprobability sampling will be used in this research as the samples will be selected with a specific purpose with a predetermined basis of selection (Shafwan, 2014). This method was selected because it has been assumed that all participants with an email address will be more likely to make use of a digital bank. This indicates that a sample is a subset of elements contained in the population of interest (Orodho 2003). It can be assumed that every respondent that has an email address will have some form of access to internet. People who do not have access to internet will be excluded from the study as they will be unable to make use of a digital bank's offerings. Convenience sampling will be used as it is a non-probability sampling technique where participants are selected due to the convenient accessibility and proximity to the researcher.

The age of the sample will be a minimum age of 18. This population age is deemed to be the banking age group according to the Banking Association of South Africa website [accessed November 2018]. An assumption that may be made is that participants that fall within this age group are more likely to make use of a digital bank. The location sample is not deemed to be an important factor as a digital bank transcends locations. However, for the purpose of this study, the location or proximity of the population will fall within South Africa as this study is testing the value perceptions of South Africans towards a digital bank in this specific country.

A sample size of no fewer than one hundred responses is recommended in order to fully capture the desired results. Due to the nature of convenience sampling, the sample size will be determined on the number of respondents that actively participate in the questionnaire that they receive in their inbox, as well as through social media. This is appropriate as the more participants that respond, the more accurate the result will be.

3.5 Research Instrument

This study will make use of questionnaire surveys to complete the data collection that will incorporate close ended questions. The research questions will be crystallised in the form of an exploratory study (Bloomberg et al, 2005). Due to the nature of a digital survey it will immediately eliminate all banking customers whom do not have access to internet. A five-point Likert scale with ranges from ‘strongly agree’ to ‘strongly disagree’ will be included to capture feedback from respondents. The Likert scale will give an indication as to which features of a digital bank are more valued. This aligns to the research report identifying, by means of ranking, the more valuable features and products the customers would prefer to receive from their digital bank.

The Likert Scale will be used as it offers options that best suit the respondent’s opinion. The main advantage of a Likert Scale is that it is a universal method of collecting data which in turn means it is easier for a respondent to understand. The Likert Scale also returns high quality, quantitative data which makes it acquiescent to draw conclusions and construct reports (Linacre, 2002).

The questionnaire was constructed in six blocks which include; (1) Particulars of the respondent, (2) Bank Usage Value, (3) Customer Jobs, (4) Pains, (5) Gains and (6) Miscellaneous. The particulars of the applicant are important as it will seek to address and understand what portion of the South African population places value on digital banking. The Bank usage value section seeks to address what elements of digital banking are of value. The Customer Jobs section will gather information of current digital offering requirements of the customer and what of those current offerings derive value for the respondent. The Pains section will gather information about a respondent’s risk appetite and whether credibility is a blocking factor for digital banks. The Gains section will explore what the customer would gain from a digital bank as opposed to remaining with a traditional bank. The miscellaneous section will allow a respondent the opportunity to add in any missing information that they may wish to share with the study.

For the use of this research, a questionnaire will be distributed, and respondent's choices will be recorded and analysed through empirical format. The questionnaire or survey will make use of factor analysis and conjoint analysis (Miller & Salkind, 1993). Surveys are suitable for this research as they will seek to gain information from the respondent that will be pre-populated with information based on the literature review. Surveys are useful in describing characteristics of a large population.

The standardisation of the questionnaires that will be sent out to the participants will ensure that there are no errors in validity. The following processes will be used to validate the questionnaire: The first process will have experts/supervisors, who understand the topic, evaluate the questionnaire and provide constructive feedback. The second process will be to pilot the survey on a subset of the intended population. After collecting pilot data, the data will be cleaned for any anomalies and data entry errors. A final check for internal consistencies will be carried out to ensure the correlation between questions is accurate.

Please refer to appendix A to view the research instrument (Qualtrics) with the accompanying cover letter requesting and motivating for respondents.

3.6 Procedure of data collection

These questionnaires will be emailed to the sample through the Qualtrics online application. The Qualtrics tool will record each and every response and then will be ready to be analysed by the researcher.

The sample will be gathered from existing databases that include the University of the Witwatersrand Student Database, as well as the Wits Business School student and alumni database. This sample size will provide an accurate prescribed target population. As previously mentioned, the survey will be distributed via email to the sample population allowing the researcher to reach a larger audience than if the survey had to be conducted manually. This will ensure a much better standard of response, as well as more accurate indication of how the population may respond. Qualtrics is a professional program that allows for a researcher to create, test and

modify surveys instantly with no coding. It allows for the researcher to eliminate any sense of bias from the researcher's point of view.

This research report will make use of the Wits database of students which allows for a wide range of filters. A further database will be used at researcher's place of work where there are over thousand employees whereby surveys may be mailed out in order to gain further insights. The survey will also be posted on social media to ascertain further participants.

3.7 Data Collection

The data collected will first be reviewed and checked for any reporting errors, omissions and any inconsistencies that may hinder the accuracy and completeness of information. The data will already be coded from the Qualtrics application relaying quality data that can be interpreted. The data will be presented using charts, figures and tables. Regression analysis will be utilized in order to determine the relationship between independent and dependent variables with the view of actual versus perceived customer value beginning to emerge.

3.8 Limitations of the study

According to Saunders *et al.* (2009), research methodology serves as a fundamental backbone of any research study. The main objective of Quantitative Research is the absolute quantification of the data presented. Quantitative research allows a generalisation of results by measuring responses of the sample population.

As a result of the generalisation of the results, a limitation of the research methodology presents itself in the improper representation of the target population. This improper representation, despite applying an appropriate sampling plan, is a result of the probability being dependent on the distribution of the observed data. This weakness may lead to a miscalculation of the probability of distribution and in turn result in a falsity in proposition (Saunders *et al.,* 2009).

Quantitative research according to Baxter (2008) may encounter difficulties as the research does not have the ability to control the environment where the respondents provide answers to the questions in the survey. Responses depend on a particular time frame and is dependent on the conditions occurring at that specific point in time.

A further weakness in quantitative research is limited outcomes of closed ended questions. This format leads to limited outcomes outlined in the research proposal. In turn, results cannot always represent the actual population in its entirety in a generalised form. Respondents also only have a limited option of responses based on the selection made by the researcher (Baxter, 2008).

A potential weakness of the study would be that there could be a portion of the population that the study does not reach as they do not have connectivity on the date that the survey was sent out. This may hinder a response rate as some potential respondents only have access to internet connectivity in their offices or places of work.

A few disadvantages of online surveys that may be observed, according to Wright (2017), include; sampling issues, generating samples from virtual respondents and access issues. These issues centre on a specific population that has online accessibility. This, in turn, is removing a large portion of the population who do not have access to the internet or email functionality.

A weakness of the Likert scale is that it is limited to the options that the researcher is aware of. There may be features and products that the researcher is unaware of that participants may be aware of from a different point of view (Hartley, 2013). A further weakness that the research report may experience is that of non-respondents. Non-respondents will weaken the validity of the report. The more responses the better the results for research report.

3.9 Validity and Reliability

Validity is the ability of an instrument to measure the facet of what is intended to be measured. In order for the validity of the actual data collected to be deemed valid the survey will require peer and supervisor approval. Validity will be ensured through the

means of having a standardised questionnaire. This study will need to be effectively communicated to the potential respondents in order for the best possible response.

External validity is the ability of the research to be generalised across persons, settings and times. This research will not be externally valid (Stacey, 2017) as the research conducted will result in the inability of the research to be generalised across persons, settings and time. The reason for this is only the population that has some form of internet connectivity will be able to respond to the survey. Sample choice plays a vital role in this method. Internal validity is the extent to which the measuring instrument provides adequate coverage of the topic under study (Kimberlin & Winterstein, 2008). This research will have internal validity as the immediate sample will provide accurate inferences on the targeted population.

This research report will have a content validity. This content validity will be maximised through means of having a standardised questionnaire that will be distributed across the sample.

Reliability is the ability of the instrument to give the same results every time the test is conducted (Mugenda & Mugenda, 2003). In order for reliability to remain high, the test will need to be conducted over a big enough sample size, across a number of respondents with very limited rejection rates. This research will yield reliable data as it is precise in determining the results in a sample population that is directly aimed at respondents that have access to email and connectivity. The instrument used is accurate and will provide consistent results across multiple repeated measures. Standardised questions with a specific question design, as well as a pilot study will ensure validity and reliability (Stacey, 2017).

This research report will have a high reliability as the test or survey will and should display similar results across different samples. The reliability will be maximised in the research report by means of conducting the same test across multiple samples.

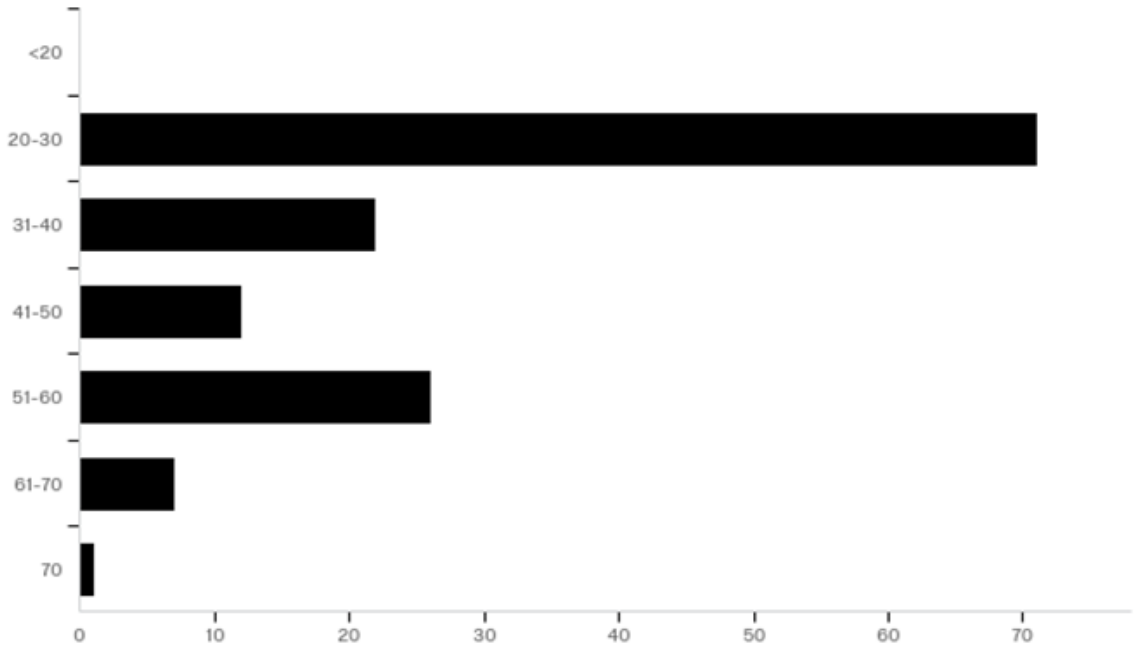
4 Presentation of findings

4.1. Particulars

The following quantitative data was collected via an electronically administered survey submitted to one hundred and sixty anonymous people and of that one hundred and sixty people only one hundred and thirty-nine responded to their survey. The survey sought to identify value in digital banking within South Africa. The approach that was taken was to help facilitate what would be derived as value in the digital banking space. This would allow the ability to measure the relative value aspects of the focus group and test the deviation of the data sets, thus allowing for a comprehensive analysis of the current digital platforms.

The survey was divided into five subsets from which each section housed a number of questions pertaining to the respondents. The first subset of questions involved the respondent's particulars, namely; age, gender, ethnicity, race, education, industry as well as income bracket.

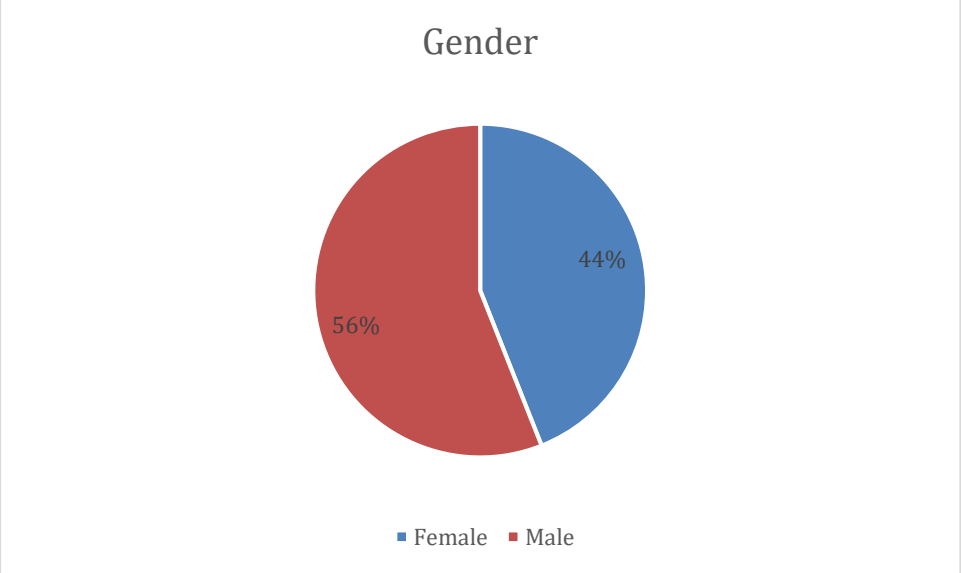
In Graph 4.1 (below) it depicts that the vast majority of respondents were between the ages of 20-30. This depicts a skewness in the current sample population size of respondents.



Number of respondents

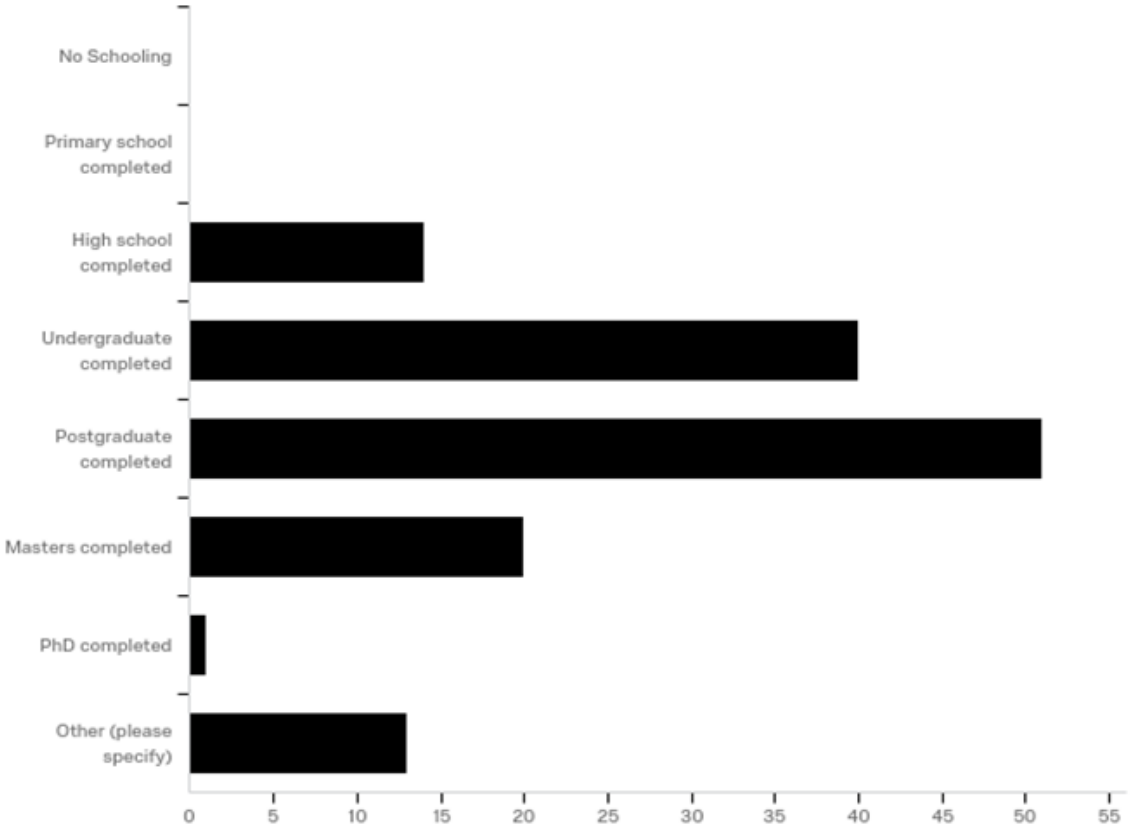
Graph 4.1- What is your age?

The age of the sample size makes an inference on whom makes more use of digital banking channels. The survey revealed that there was a 56% female to 44% male split in respondents (as seen in Graph 4.1.1). This illustrates fair depiction of the current South African population. A relative split with females making up the slight majority of the respondents as according to the questionnaire survey.

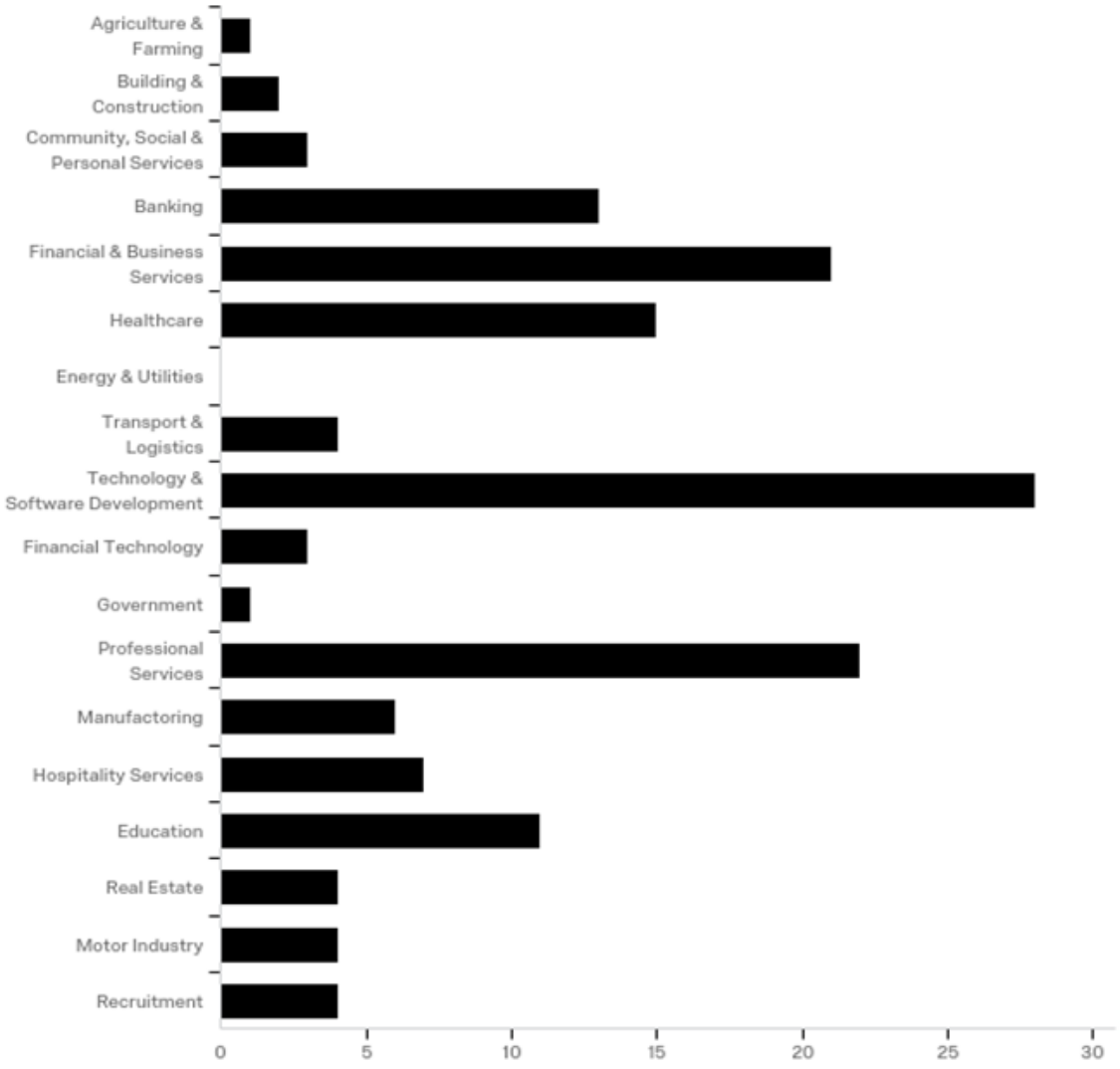


Graph 4.1.1- What is your gender?

Graph 4.2 shows the education level of the online respondents. Most respondents have some form of education in one form or another. The majority of respondents have completed a postgraduate degree. This represents the education levels of the online respondents which can be as expected due to the nature of the survey being distributed online. It is implied that the more educated an individual is, the more knowledge one has to perform basic online activities which includes email and online searching

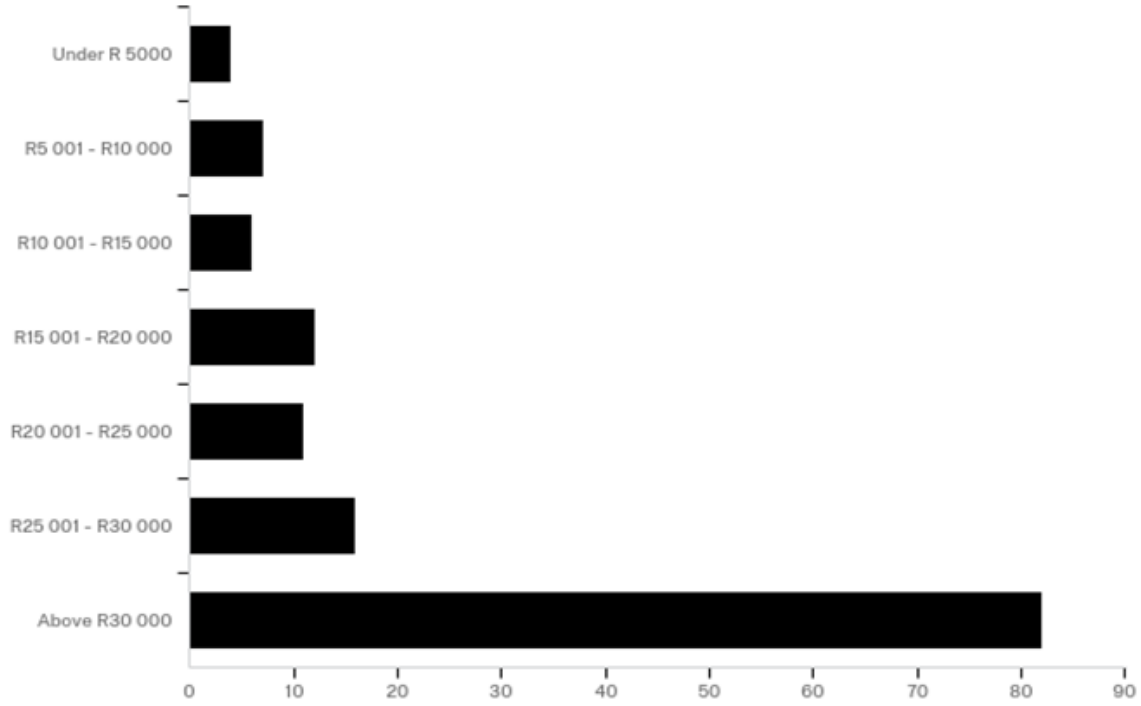


Graph 4.2 - What is your highest level of formal education?



Graph 4.3 - Which industry/industries best describes your field of work?

In Graph 4.3 there is a distinct weighting to respondents in the technological and financial service industry. This specific sample of respondents will be used as a reference point for the sample being technologically advanced, as every respondent has an online presence and is able to perform basic online activities, such as; receive and respond to emails, make use of internet banking and search the internet for specific content.



Graph 4.4 - Please specify which gross income bracket do you fall into per month?

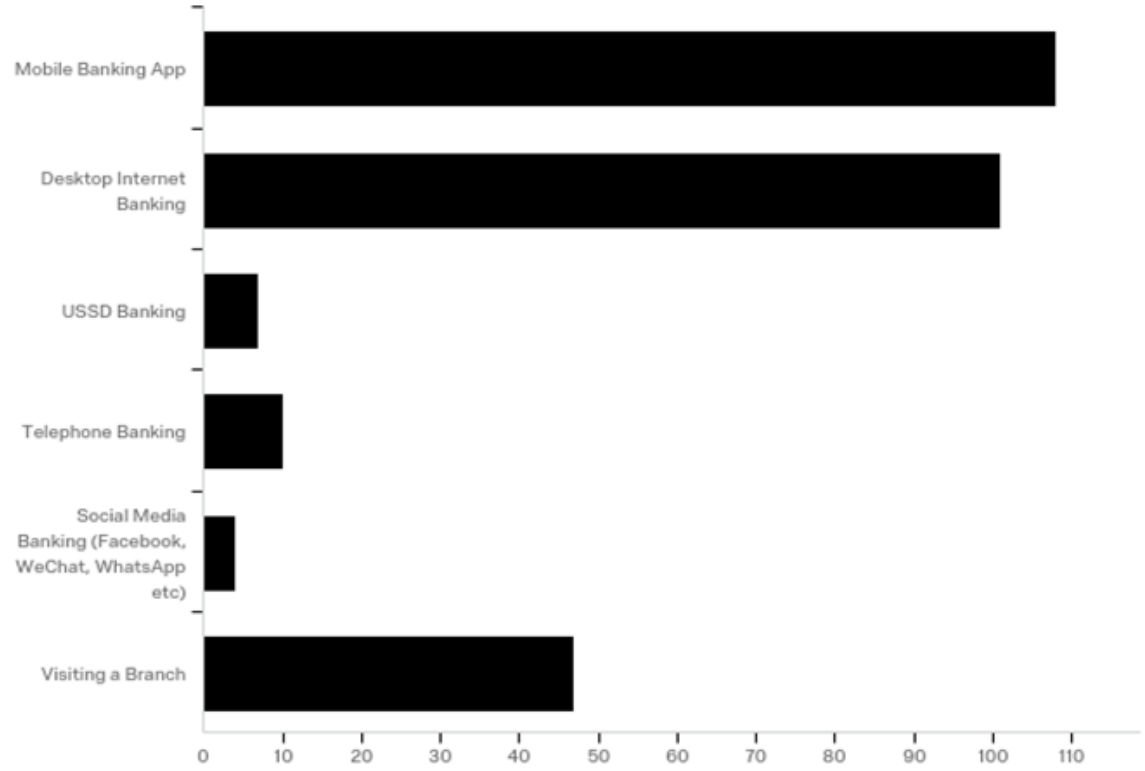
Graph 4.4 reveals the income bracket of the respondents. The vast majority of respondents earn well over the R30 000 per month bracket which indicates that the sample size is in the upper echelon of monthly earning which would again speak to the accessibility of online services. This conclusion is made with regard to the pricing structures of mobile data in South Africa which isolates and excludes users of a lower income earning potential.

4.2 Digital Banking Trends

4.2.1 Usage Value

When respondents were asked if their bank was a digital bank, over 90% of respondents stated “yes”. However, at the time of writing this journal article, no digital bank in South Africa existed yet, with only the newly launched Tyme Bank entering the market. Upon further analysis, the exercise of having a mobile banking app constituted

that a bank was, according to Graph 4.5, a digital bank by means of use case for a digital bank.

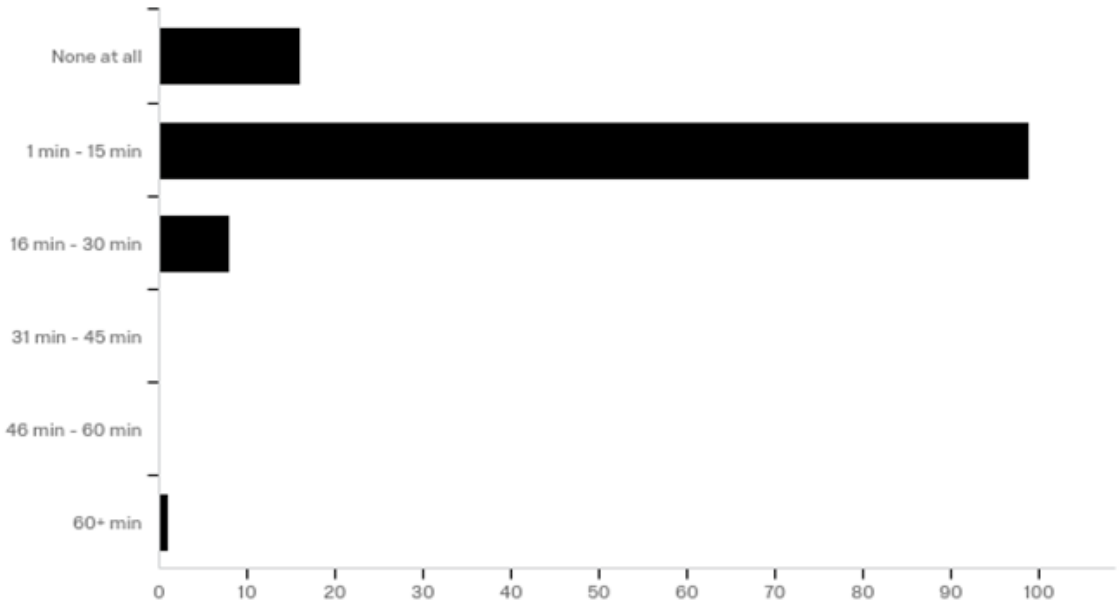


Graph 4.5 - Which of the following banking channels do you make use of?

In Graph 4.5, one can identify that the most frequent use of banking channels is in fact a mobile banking application or the use of desktop internet banking. One can make the inference that these forms of banking are valued most to the sample of respondents.

Most respondents are obtaining a level of usage value from their bank with it not necessarily being linked to a digital bank *Lindič et al.* (2011) Value Proposition Canvas where the digital bank acts as a gain creator and not necessarily a pain reliever. Respondents derive value from the applications and features of a digital bank without the bank actually being completely digital.

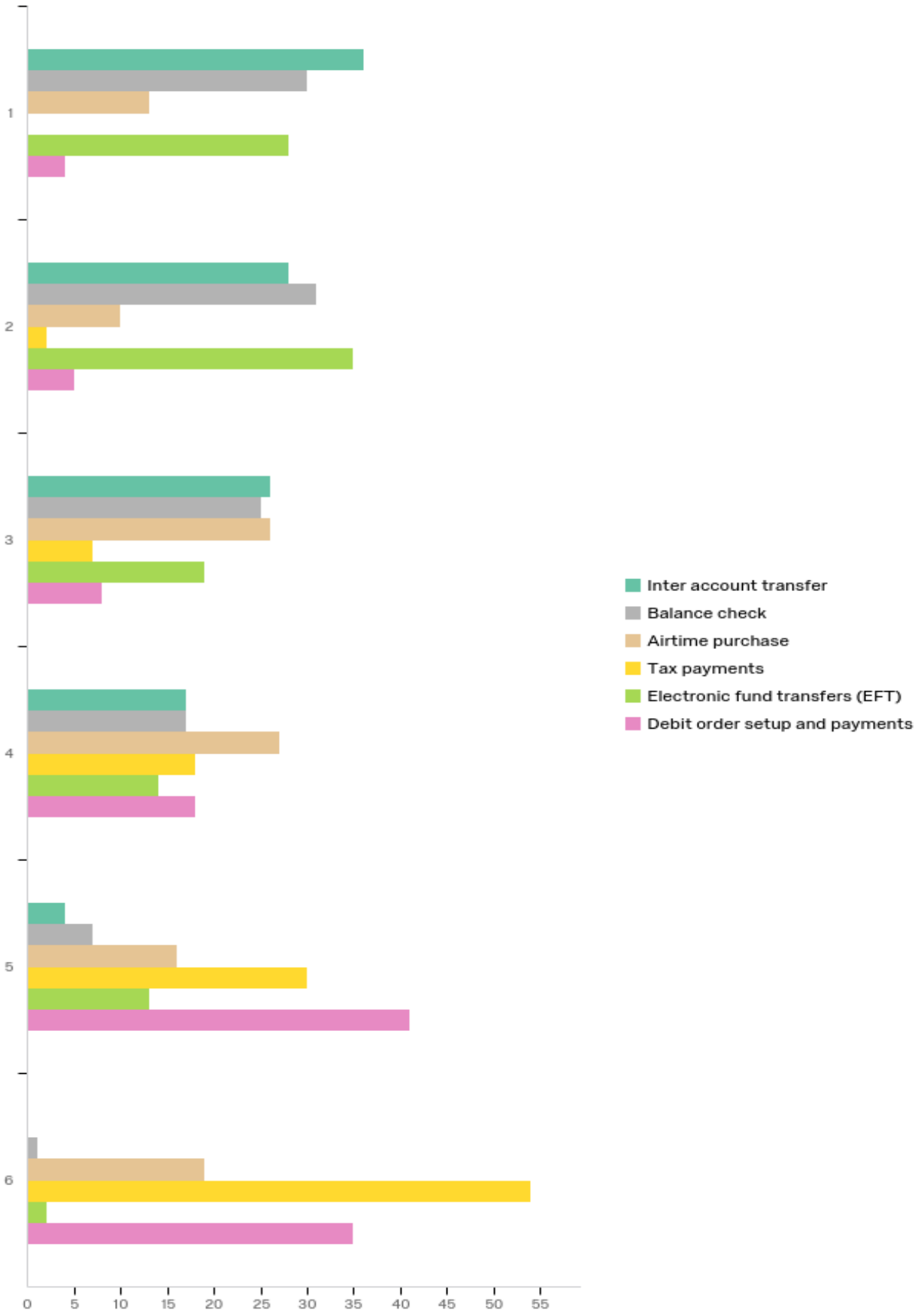
4.2.2 Customer Jobs



Graph 4.6 - On average, how much time do you spend making use of Mobile Banking App per day?

An interesting observation is that although mobile banking is seen as the most common form of banking, when asked the question “On average, how much time do you spend making use of Mobile Banking App per day?” majority of the respondents claim that they only spend between 1 minute and 15 minutes on the mobile banking app, as seen in Graph 4.6. One can make an inference that although mobile banking apps are seen as the most valued of digital channels, they need to be efficient, as the maximum time spent on the application is only 15 minutes.

This links back to *Lindič et al.* (2011) Value Proposition Canvas where customers are actively making use of the bank’s online channels in order to transact daily and the value is derived by making use of the channel for as little time possible. This value is an example of products and services which fulfil the need or customer job in the shortest and most efficient time.


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Tax payments
Electronic fund transfers (EFT)
Debit order setup and payments

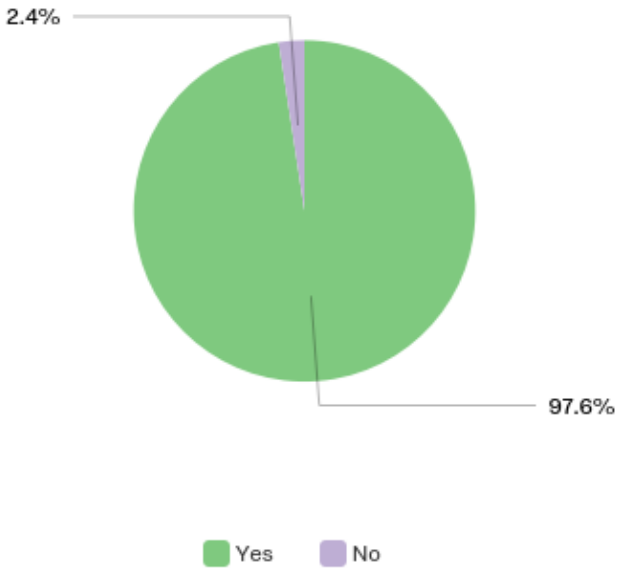
Graph 4.7 - Which services do you make use of most regularly?

In Graph 4.7 the question was asked which services are used most regularly in terms of ranking each service. The service that was ranked highest was the inter-account transfer. As seen above, the ability to be able to move funds around and between accounts is the most important function that users make use of regularly. Again, the inference made here is that mobile app users wish to use their app for the convenience of making inter account transfers, but do not want to have to spend more than 15 minutes at a time doing this.

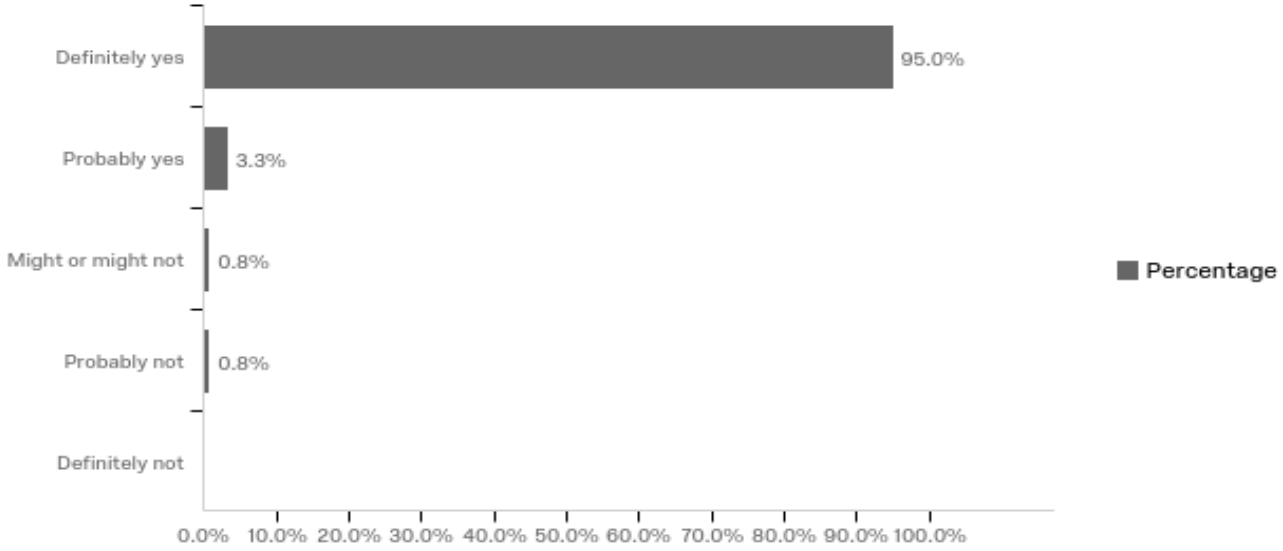
Customer Jobs (Clark *et al,* 2012) includes effective banking, Electronic Transferring of funds, USSD banking and mobile banking. As one is able to see in the above diagram effective banking forms part of the balance check and inter-account transfers. Moat respondents believe that their inter-account transfers and balance checks are what is most important to a customer in when making use of their banking channels. Electronic transferring of funds is a further important aspect to the respondents however USSD and Mobile banking are not even mentioned on the list (Mbama, 2018). One is able to deduce that these features hold no value to the respondent's even if they were offered as part of a digital bank's value offering.

4.2.3 Pains

Risk is a major factor when deciding on a bank and one of the major pains' respondents reacted to was that a bank would only be considered effective if it made sure the proper preventative measures were put in place to reduce risk. In Graph 4.8 97.6% of respondents responded yes to security being a valuable measure of an effective bank. Value derived from any sort of bank needs to have a valuable measure of security.



Graph 4.8 - Would you consider your bank to be effective if it offered you the ability to deposit and withdraw funds at any given time?

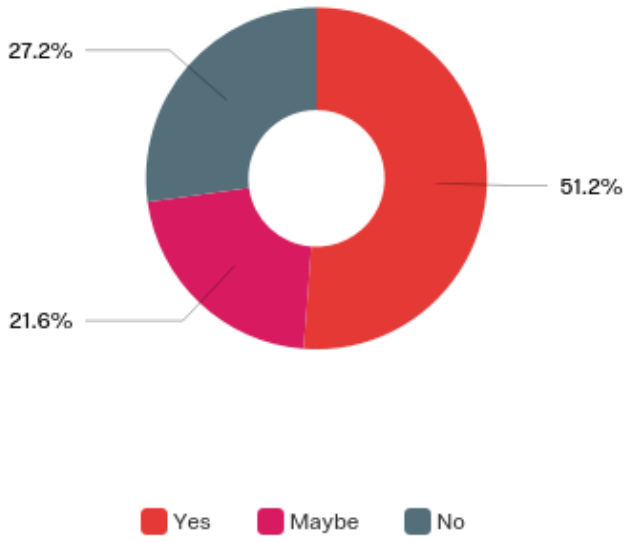


Graph 4.9 - Is online security important to you when choosing a bank?

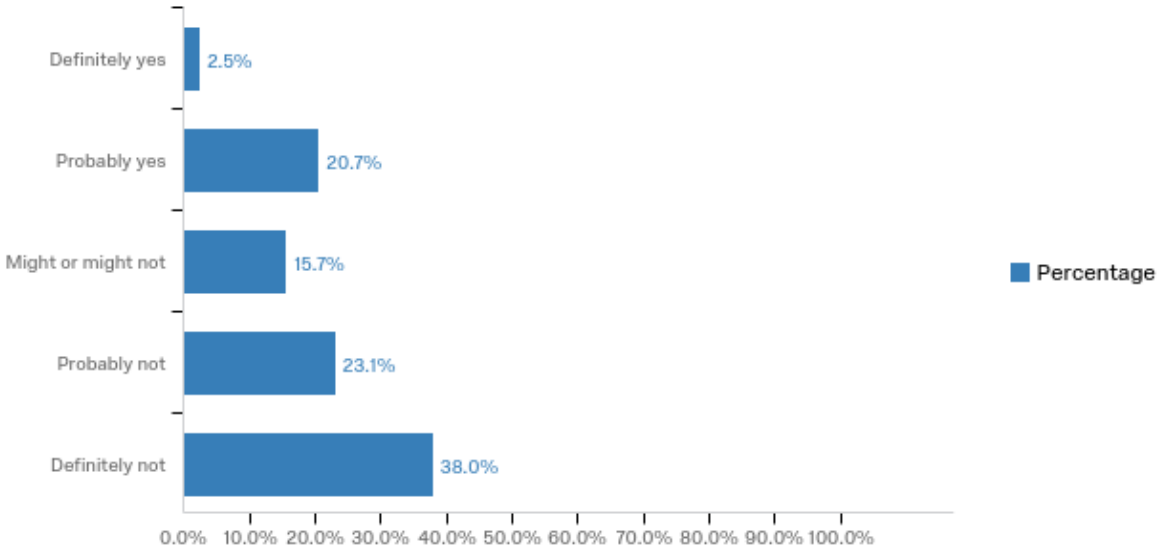
Graph 4.9 indicates that online security is the highest form of value according to the survey as this was ranked the highest among respondents. Online security derives the highest value in terms of banking as well as digital banking. It is noted that a user will

not switch banks if there is a perceived security risk. In South Africa the crime rate, according to Crime Stats SA (2018) is over 2,204,292 total crimes conducted in the year 2018, is one of the biggest factors when a user is deciding on where to bank. Security is a necessity.

Cost is a further pain to respondents with regards to the value derived from a digital bank. In *Graph 4.10,* 51.2% respondents would be willing to switch banks if rates were cheaper as value is derived from a cost perspective. The less cost the more value one will be able to derive from their respective bank. Digital banks, as mentioned previously, do not have traditional brick and mortar costs that are associated with traditional banks.



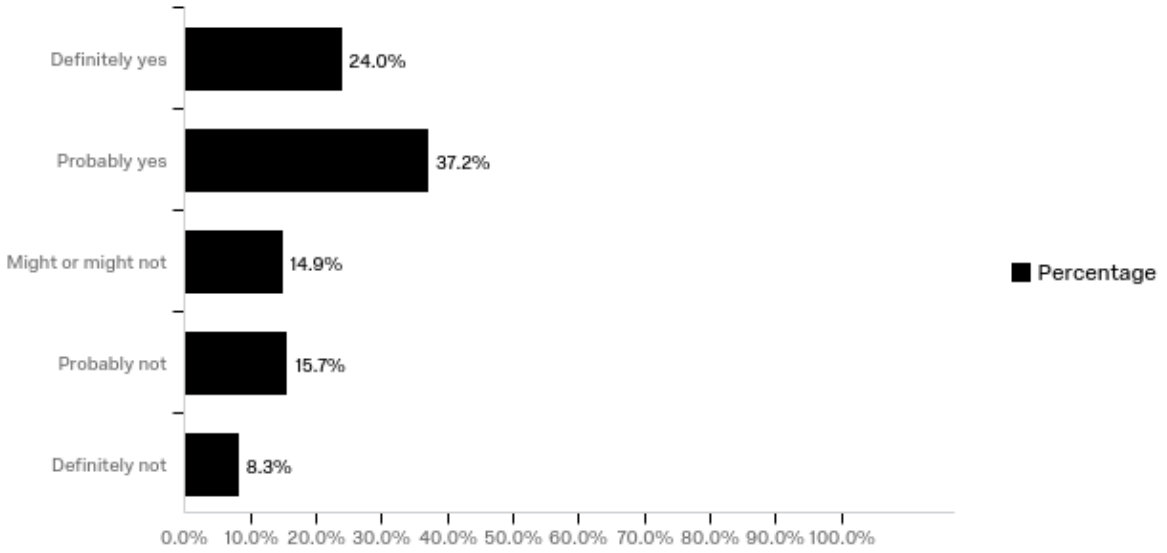
Graph 4.10 - If a digital bank were to offer cheaper rates than that of a traditional bank would you consider switching?



Graph 4.11 - Do you feel it is convenient to go into a bank branch to open a bank account?

According to *Graph 4.11* over 61.1% of respondents feel that it is not convenient to go into a bank branch to open a bank account. This strengthens the notion put forward by *Lindič et al.*'s (2011) Value Proposition Canvas where the pain of convenience is ranked as a pain when it comes to having to enter a branch. An important point to notice is that in the questionnaire regarding opening an account at branch, it does not take into account travelling to a branch, time standing in a queue and interacting with staff. The question merely addresses venturing to a branch of a bank. This is an indication of the respondent's angst towards traditional bank branches (Mbama, 2018).

The final pain according to the respondents in relation to *Lindič et al.*'s (2011) Value Proposition Canvas is service quality. In *Graph 4.12 - Do you feel that your bank branch always provides the service quality you desire?* Most bank branches provide adequate service quality.

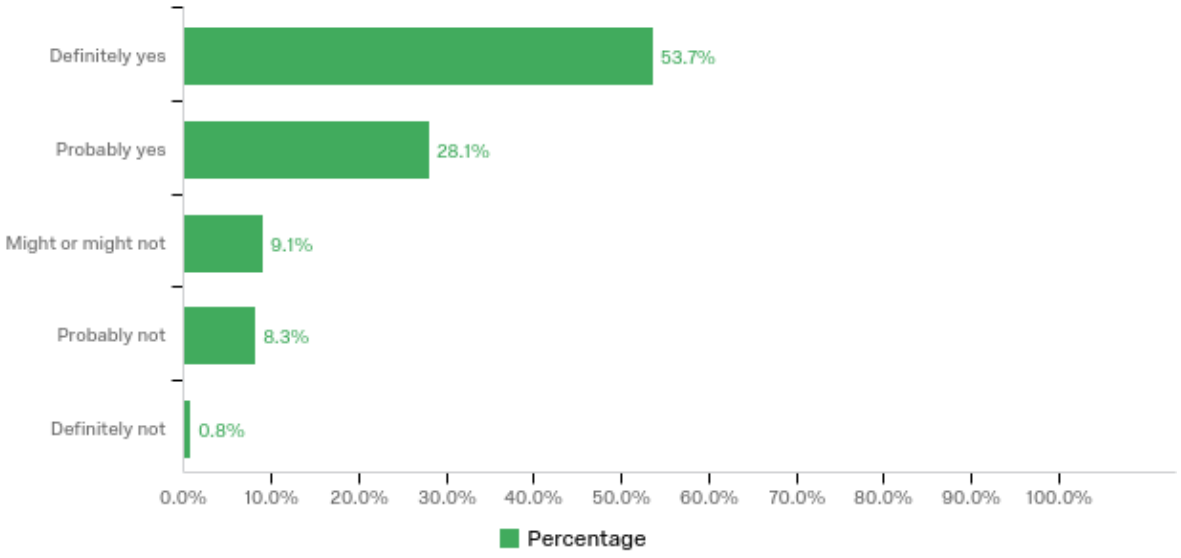


Graph 4.12- Do you feel that your bank branch always provides the service quality you desire?

One can see that over 61.2% of respondents either definitely agree or probably agree with their bank branch providing good service quality. This is of special interest as previously the respondents claimed that they would prefer not to venture into a bank branch however they believe that bank branch service quality is of a high standard. This further infers that the respondents prefer not to go into a branch but when they do the service received is of a high quality.

4.2.4 Gains

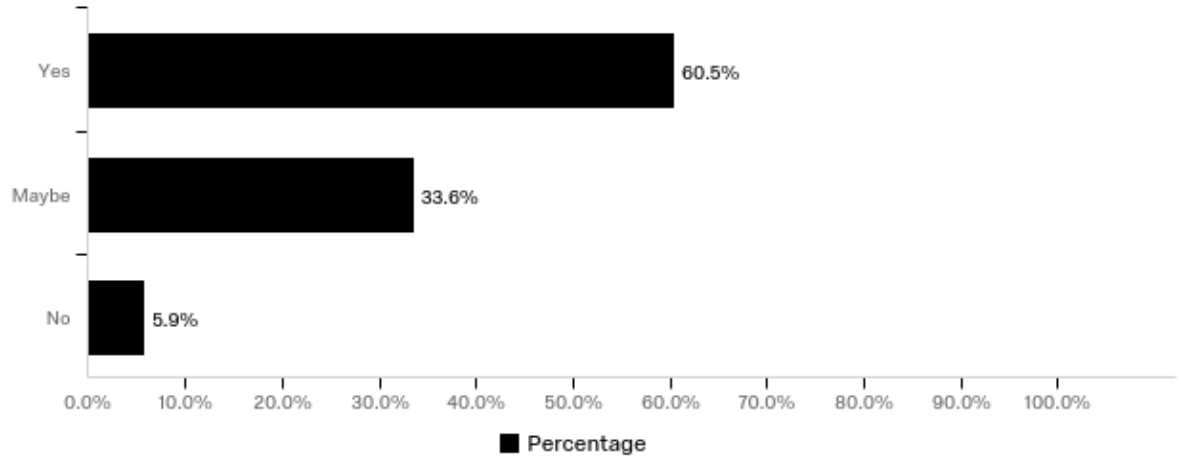
As previously mentioned in Bank fees in Graph 4.10 should the cost of banking fees reduce more respondents would consider switching. This according to *Lindič et al.*'s (2011) Value Proposition Canvas is an important notion as it becomes a gain for digital banking customers as they would be gaining an advantage of cheaper banking fees and thus harnessing greater value out of their bank account.



Graph 4.13 - Do you feel it is convenient to open a bank account via smartphone?

As seen in the above Graph (4.13) 81.8% of all respondents find it convenient to open a bank account via smartphone. This adds to the gains of potential digital bank account customers. As mentioned in section 2.4.2.3 customers are more likely to switch bank accounts if it is simple enough for them without any inconvenience.

Convenience addresses the ease of use of a bank account and in particular a digital bank account. If a customer is unable to make use of the account or is unable to operate it then it is no longer a gain and in turn resorts to a pain.



Graph 4.14 - If it was more convenient to bank with a digital bank would you consider moving from your existing bank?

In Graph 4.14 there is an indication of 60.5% of respondents whom would switch from their existing bank to a digital bank if it was more convenient. This again draws on the notion of easy to use bank account being a preference amongst respondents. One of the influencing factors as to why more people do not switch is that it is difficult and not a simple process.

5. Conclusion

This research was conducted with the intention of defining value for a digital bank in South Africa. It has been established that in South Africa value is derived from a number of different influencing factors. These factors include security, easy of transacting, efficiency as well as the associated costs with opening an account.

South Africans who already have a technological presence are more inclined to switch banks if the prospective new bank is cost effective as well as efficient. However, it must be addressed that most bank account owners in South Africa already perceive their bank to be digital in nature and switching to a new bank based purely on being digital is does not hold enough gravitas for a potential changing of banks.

South Africa is currently in a state of transition whereby a number of new digital banks are on the cusp of launching in South Africa. The market itself is strongly determined upon a cost factor. In the end should a bank wish to enter the market the best possible way of entering into the market and getting potential new customers to switch a strong pricing strategy is required.

5.1. Recommendations for further academic research

It is recommended that further research should be conducted into the pricing and cost structures of a digital bank. Identifying further avenues of cost reduction in opening and maintaining a digital bank would be a worthwhile exercise. Currently in South Africa there is very limited knowledge around the cost structures associated having a digital bank account. Should bank accounts before free to own it would greatly change the banking sector in South Africa.

Additionally, it would be of academic interest to investigate the perceived risk of a digital bank and the associated security threats. As South Africa is a very immature

market in the digital banking space there are a number of unknowns involved with security surrounding digital banks.

And finally, a final recommendation for academic research is that of defining the term digital bank versus traditional banks. There is a perception that some current traditional banks are in fact already digital banks. Although this research paper touched on the topic there is still some vagueness around what really constitutes a digital bank.

5.2 Recommendations for management and banks based on results

The following are recommendations that management and banks should make use of when launching a digital bank in South Africa. It is important to note that these recommendations are based on the respondents whom have access to internet and are more likely to have the knowledge and facilities to open up a digital bank account.

1) *Ease of use* – It is important to make sure that a bank account is simple, straightforward and fundamentally easy to use. South African citizens do not like to spend a long period of time on the banking platform to complete simple transactions or view statements. Anything more than 10-15minutes spent on a banking platform and customers will disengage.
2) *Cost/pricing* – The cost of opening and owning a bank account needs to be relatively cheap. The more expensive an account is to keep open the less likely it is to succeed as customers do not believe switching for a more expensive bank account will be of any value. Value is derived from the cost associated with the product and in this case the bank account.
3) *Security* – Security is a fundamental concern for any individual looking to open a bank account. There needs to be a good support and governance around bank account security. The less secure a bank is perceived to be the less likely customers are going to buy into a digital bank.

6. Appendix

Please refer to attachment supplementary documents appendices A, B & C

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