A financial Technology Application to Assist with Investment Advice in South Africa

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A business venture proposal 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/BA717070/782

Final Report: March 2019

DECLARATION

I, Justin Mark Suttner, 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.

Justin Mark Suttner

Signed at Johannesburg

On the 27th day of March 2019

Dedication

I dedicate this paper to my wife, family, friends and my MBA classmates, for all their constant support, encouragement, guidance and patience throughout this research report and the overall year in general. It was truly a memorable experience.

Acknowledgements

To my wife, thank you for always being there for me through the toughest days. Your constant support and input has truly been exceptional and I could not have done this without you. Your dedication to me has been unwavering and your academic input on this report and throughout is greatly appreciated.

To my Supervisor, Dr. Robert Venter, thank you for the guidance and constant on-going support throughout this research report. I truly appreciate all your patience and assistance throughout this journey and ensuring that I submit a report that I am proud of.

To my family, thank you for all your support, love and patience this past year. It is certainly appreciated and has made this experience all the more easier.

To my friends, thank you for putting up with my absence this past year. Thank you to David Talpert who assisted with the financial analysis section of this research report.

To Jennifer Renton, thank you for always ensuring my documents were proof read to the highest standard and for your fast turnaround times.

To Dani Freidus and Rishal Balkissoon, thank you for taking the time to assist with the data analysis of this report and for always availing yourselves.

To Codey, Darren, Doron and Hylton, this past year would not have been the same without you all. The support that we have shown for each other throughout this journey has truly been incredible and I cannot thank you enough for everything. The crew will always live on and my hope is that we remain in constant contact throughout our lives and continue to share our knowledge and experiences.

To Clive Novis, without whom I would not have been able to complete this degree. Your unconditional generosity has allowed me to excel in many facets of my life and I cannot thank you enough for providing me with this opportunity. I truly am grateful and appreciative of everything

Lastly, to Wits Business School, it has been a truly remarkable experience and I thank you for all the opportunities both past, present and future.

SUPPLEMENTARY INFORMATION

Supervisor: Dr. Robert Venter

Word Count*: 15623

Supplementary files:

Appendix A – Introduction to Online Survey

Appendix B - Data collection instrument, online survey and questionnaire

Appendix C – Logo Design of My Financial Coach

*Including Executive summary, References, etc.

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Executive Summary

With the advent of the Fourth Industrial Revolution, it is imperative for the financial services industry to be at the forefront of technology-based services. Yet there is a gap in the South African financial services sector, which requires a technology-driven service for unbiased algorithmic-based financial advice that is instantaneous and low cost. Research was thus conducted to ascertain the desirability and viability of a technology-driven financial services application in the form of a “robo-adviser”, with the millennial generation being selected as the target market.

Literature relating to the behaviour and mentality of the millennial generation, financial technology, robo-advisers, the adoption and uptake of technology, and trust in digital technologies and services was reviewed. A cross-sectional study utilising an electronic survey was distributed to collect quantitative data on millennials living in Johannesburg. A quantitative analysis was then performed which utilised descriptive and inferential statistics to draw insights and recommendations on how to build the proposed business. The rich insights gained from this allowed for the formation of a business proposal, which incorporated the key business areas and elements needed to design, build and develop a successful company, based on the Lean Start-up model.

The data collected demonstrated that there is a need for a new approach to financial and investment advice. Millennials are willing to accept financial advice based on algorithmic technologies, thus as per the literature reviewed, data obtained and analysis performed, a robo-adviser would satisfy the financial needs of South African millennials, while being a profitable business venture.

Key words: Robo-adviser, Fintech, Millennials, Lean Start-up, Financial advice,

1. Introduction

1.1 Current Situation and Status Quo within the Financial Advisery Industry

Consumers across the world rely on financial advisers to assist them with financial decision-making regarding risk insurance and credit and debt management, as well as to provide investment advice in areas such as retirement planning and general goal-based investing.

Consumers seek out financial advisers and delegate investment decisions to them in the absence of their own financial literacy and knowledge. These decisions come at a cost that is either fee- or commission-based. In South Africa, financial advisers work for commission. This has given rise to the agency problem, whereby a financial adviser is conflicted between giving accurate advice to their clients, thereby improving their financial compensation, and satisfying the firm's targets and requirements (Hackethal, Haliassos, & Jappelli, 2012).

There is an ongoing problem with Advisers mis-selling to clients due to incentives being offered to them by the firms they work for, which often translates into biased advice that is not suited to a particular client's needs, goals or objectives. Financial advisers' own self-interest thus plays a pivotal role in the advice they give (Mullainathan, Noeth, & Schoar, 2013).

Mullainathan et al. (2013, p. 1) defined good advice as "advice that moves the investor toward a low cost, diversified, index-fund approach". Index funds offer retail investors a low cost investment that is well diversified compared to mutual funds or unit trusts, which attract higher fees and more commissions and as such are more often recommended by Advisers.

Another problem that arises is that financial advisers are able to exploit clients who do not possess the necessary knowledge and financial literacy to make an informed investment decision (Hackethal et al., 2012), i.e. advisers often give advice to their clients based on how much commission they will potentially earn.

The findings of a study conducted by Hackethal et al. (2012) indicated two important realities:

1. Financial advisers who earned a commission did not provide the equivalent amount of value to their clients' investment portfolios. Their advice was not only biased, but it was expensive as the commissions charged were excessively high and added very little value to their clients other than diversification advice.
2. Financial advisers dealt with older wealthier clients and neglected potential clients with lower net assets and incomes. The clients who were neglected tended to be younger consumers who had different needs and increasingly wanted to interact using technology.

1.2 Millennial Generation

Generation Y, otherwise known as millennials, expects traditional financial services to include more digital applications and to incorporate technology to facilitate their appetite for modern technology (Salo, 2017). Younger generations feel that it is more important to have access to online financial services than traditional face-to-face human interactions (Cocca, 2016).

Millennials have constantly evolving expectations and are becoming catalysts for a change that is affecting the older generations, i.e. they are having a direct impact on their expectations with regards to the use of technology and digitisation. This means that the market and number of potential consumers of technology-driven services will increase, especially in the financial technology space. Generation Y has a very fast uptake of technology, especially when new digital technologies enhance an existing business model or a traditional service that they see value in (Ernst & Young, 2011).In Australia, for example, 84% of millennials would consider using banking services if they were offered by technology companies such as Google or Apple. In addition to this, 88% of millennials in Australia conduct their banking using digital technology, half of which is done via smartphones (Gomber, Kauffman, Parker, & Weber, 2018).

A survey conducted among 1,200 adults in the United States in 2013 saw the millennial generation list trust, loyalty and social responsibility as key traits of the businesses they wanted to work for and support. In line with this, many corporations in the United States now provide instant feedback to employees instead of quarterly reviews(Winograd & Hais, 2014), because for millennials, the need for instant gratification is key (Winograd & Hais, 2014). Stewart, Oliver, Cravens and Oishi (2017)

confirmed that this is not a country specific phenomenon, however, i.e. these characteristics apply to millennials globally.

Therefore the focus of the business venture will take into account the current financial advisery situation in South Africa as well as the millennial mind-set and potential customer.

1.3 Scope

The company proposed will be called My Financial Coach, which will be a technology-driven, web-based application that will provide investment advice, identify financial shortfalls within clients' portfolios, and make recommendations according to clients' spending patterns on a monthly basis through the use of a robo-adviser. The business will take advantage of new technologies and potentially reshape the investment management and advice industry within South Africa.

My Financial Coach will be able to provide recommendations using a robo-adviser that uses machine learning, artificial intelligence (AI) and algorithms to provide consumers with unbiased, objective high quality advice at a low cost with no affiliation to any financial services company. Robo-advisers use low cost exchange traded funds (ETFs) that track certain indices in order to create a portfolio that has an asset allocation that is specific to each individual's needs (Jung, Glaser, & Köpplin, 2019). The assets making up a client's portfolio will include equities, property stocks, bonds and cash.

My Financial Coach will focus on three areas within the investment Advisery space:

- Retirement investments.
- Discretionary investments.
- Tax free investments.

The robo-adviser will generate advice on the above investment areas based on the outcome of a financial needs analysis, which will take the form of an all-inclusive questionnaire that will ask the investor to provide details of their current financial situation. This will include the investor's income, expenditures, risk profile, financial goals, objectives, priorities, current assets and liabilities, time horizon of investments, and life events such as marriage, divorce or the birth of a child.

Once completed, the outcomes of the analysis will be used to determine the most suitable portfolio for the investor. The analysis will indicate to the client their financial shortfalls pertaining to each specific goal, and will be very interactive to allow for specific scenario manipulation so that the investor understands their current financial situation.

The financial needs analysis will then be analysed and the investor will receive advice on the optimal asset allocation to achieve their goals and objectives. They will also receive information on the suggested ETFs, rules and regulatory information, basic tax information pertaining to the type of investment needed, and suggested monthly investment amount. At this point the client will be able to complete an electronic application form, submit their FICA documents electronically, accept the investment and start monthly debit orders.

The application will be easy to use and utilise simple language, with a host of information for consumers should they require more information. Chat bots will interact with clients in place of a FAQ page.

This service will be ongoing, with the investor being prompted every six months to update their financial needs analysis to see if a change in their portfolio is necessary. The investor's portfolio can also be re-balanced every month, six months or annually, according to their instructions.

1.3.1 Scope of research

1.3.1.1 Research Question

The aim of this research study was to explore the desirability and viability of launching a robo-advisery company and service in the South African market.

1.3.1.2 Objectives of study

- Gain in-depth understanding of financial technology, robo-advisers, the technology acceptance model, trust in technology and the lean startup model through a thorough review of the literature.
- Collect data on the millennial market within Johannesburg South Africa, through the use of surveys.

- Analyse data using relevant statistical techniques
- Create a business plan using the reviewed literature and data collected
- Draw conclusion on desirability and viability of launching a robo-adviser within the South African market

My Financial Coach has the potential to shift the financial services industry from a product-driven to a service-driven industry, and compete head on with major institutions. The key to making the business a success will be to gain the trust of potential customers, who will initially be the millennial generation. This will be achieved by offering state-of-the-art technology that has an intuitive and easy to use interface.

1.4 Relationship with Stakeholders

The business will interact with both primary and secondary stakeholders. Primary stakeholders are any group, individual, company and/or organisation that affect the firm directly and may have an impact of the company's objectives. Secondary stakeholders are those stakeholders who are not directly involved with the firm, but have the ability to influence it via the primary stakeholders (Hall & Martin, 2005).

It is important to know and understand the company's primary and secondary stakeholders as well as the sensitivities surrounding them, as they will be critical to the success or failure of the business.

The following primary and secondary stakeholders have been identified as being key to the success of the initiative:

Table 1: Primary versus secondary stakeholders

Primary	**Secondary**
Customers	Government institutions E.g. Department of Science and Technology
Financial services firms	Consumers who may utilise the service
Asset management platform providers	Fintech-focused venture capital investors
Software and technology providers	Industry analysts
Employees	Fintech and investment publications
Investors	
Regulators and relevant authorities	
Compliance partners	

The primary stakeholders will be involved in the direct service offering to the client and thus need to be managed effectively in order to create a stakeholder ecosystem that provides the best service possible to the end user. Secondary stakeholders will be utilised for strategic planning purposes and assistance where needed.

2. Application of Prior Research

2.1 Financial Technology – Fintech

Fintech has been growing rapidly and changing the way traditional financial services are offered. A key opportunity within the fintech space is investment management and financial planning, which uses AI, machine learning and algorithms to service customers' needs. This has provided a new space within the financial services market for fintech firms to capture customer demand in a rapidly evolving digital world (Lee, Yen, & Hurlburt, 2018).

The growth of new fintech start-ups has been immense; during the last quarter of 2017, these start-ups received $80.4 billion in venture capital funding worldwide, and the global investment community is extremely bullish about the future of the sector in both the developed and developing world (Gomber et al., 2018). Lee et al. (2018) stated that African countries are in a good position to take advantage of this increasing spend, as their older legacy systems and technologies are not as ingrained within their economies.

Chen, Wu and Yang (2018) identify fintech and its associated technologies as having the potential to greatly benefit the developing world, as many potential customers have access to mobile devices and data but are unable to utilise formal structures such as bank branches or human advisers. Lee et al. (2018, p. 1) further observed that, "Fifty percent of financial consumers worldwide use at least one fintech application". This number is poised to grow over the next few years, providing further impetus for creating a fintech start-up in South Africa.

According to Gomber et al. (2018), a fintech revolution is taking place for three reasons:

- Vast amounts of capital are available for fintech start-ups.
- The processes and interfaces related to financial services and products have changed.
- Fintech companies have stripped out most or all of the human element in financial services, and are available 24 hours a day, 365 days a year, from

anywhere in the world. As a result, these companies have had to make their services very personalised, which has been achieved through big data analytics.

Underpinning the above three pillars are aspects that are creating differentiators, giving fintech companies the edge over existing financial services companies and attracting millennial customers:

- Technology innovation – This is widely regarded as a big driver of economic growth as it is constantly evolving and shaping the way business will be done in the future (Adomavicius, Bockstedt, Gupta, & Kauffman, 2008).
- Process disruption – The processes of walking into a bank branch or setting up an appointment with a financial adviser are being disrupted in order to create a more efficient process to achieve a desired outcome (Kauffman, Kim, Lee, Hoang, & Ren, 2017).
- Service transformation – Fintech companies operate differently from traditional financial services companies, and the entire customer experience has been reworked to create a very customer-centric service. Service transformation and process disruption work hand-in-hand to create a superior quality service offering (Gomber et al., 2018).

The need for fintech start-ups to be 100% customer-centric cannot be understated. Self-service is a key element of fintech services and the apprehension of some consumers to switch from traditional services to new digital ones is ever present, thus it is imperative that fintech companies ensure that the customer is always top of mind (Gomber et al., 2018). Nicoletti (2017) noted that fintech companies should live with customer centricity at heart and all efforts must be geared towards and centred around the customer.

2.2 The Robo-Adviser

After the financial crisis in 2008, trust in human advisers dropped dramatically, which paved the way for algorithmic, automated and advice-driven software, technology and platforms. The robo-adviser is the second wave of digitisation within the financial planning and Advisery industry. The first wave was not automation in terms of advice,

but rather functions that aid the adviser, such as online platforms for trading in equities as well as brokerages (Jung, Dorner, Glaser, & Morana, 2018).

Robo-advisers use AI, complex algorithms, machine learning and assumptions to assist consumers to invest their money through a digital platform with no human interaction (Singh & Kaur, 2017). Machine learning and AI are the major technologies underpinning robo-advisers, and taking a broader long-term view, these two technologies will become key differentiators (Lee et al., 2018). Diederick Van Thiel and Fred Van Raaij (2017) argued that robo-advisers have the potential to make investors' decision-making easier and less stressful, while improving the financial security of the mass market. They added that the prospective impact of robo-advisers extends to both the developed and developing world, and the impact will be equally dramatic.

Singh and Kaur (2017) identified that the average consumer generally lacks the necessary time and knowledge to achieve growth and stability in their financial portfolios. They also do not possess huge sums of disposable income to invest, thus they are excluded from a traditional financial adviser's radar based on the cost of seeing these clients versus the pay-off. Beyer (2017) found that these investors are very often millennials, who have only recently entered the working world and are yet to earn large sums of money. Robo-advisers thus have the ability to cater for the millennial market due to their technology, easy to use interfaces, low costs and unbiased instant advice.

Forecasts predict that "robo Advisers will manage around 10% of total global assets under management (AUM) by 2020. This equates to around $8 trillion in assets under management" (Kocianski, 2016, p.2). A big trend internationally is the move away from expensive investment products and unit trusts towards low cost passive index tracking funds with investment fees that are low and transparent. These are commonly referred to as ETFs, which provide investors with a low cost investment option that tracks a specific underlying index (Philips, Kinniry, Walker, Schlanger, & Hirt, 2015).

According to research conducted at Oxford University, financial Advisery positions are already being taken over by robots and are high up on the list of jobs that are being disrupted by technology (Frey, 2001; Gentile, Spiller, & Noci, 2007). Robo-Advisery

is predicted to grow at a compound growth rate annually of 120%, and it is estimated that in 2020, $2.2 trillion would have been invested through robo-advisers (Epperson, Hedges, Singh, & Gabel, 2015). This bodes extremely well for the robo-adviser application, especially considering that most robo-Advisery services charge an annual fee of between 0.5% - 1% of assets under management (Vukovic & Bjerknes, 2017). This means that the robo-Advisery industry alone may be able to generate a total of $11 billion per year (Singh & Kaur, 2017).

Using investment advisers is very much perception-based, and advisers often gain clients via word of mouth or referrals from existing clients. The issues facing robo-advisers and virtual advice platforms stem from the elimination of human interactions, as a robo-adviser is unable to pick up on the emotional aspects that investors tend to display, cannot pick up on any body language cues, and is unable to understand an investor's background (Cocca, 2016). Aligned to the above Jung, Glaser and Köpplin (2019) stated that robo-advisers may potentially also lack perceptions of risk tolerance and personalisation, which may hinder the process slightly.

Factors that affect a robo-adviser's success and ability to gain traction within the market include trust, regulations, service integration and the relevance of human interaction. These factors may provide a host of challenges for virtual investment advice as they tend to be the factors that are quite often cherished by clients (Cocca, 2016). Jung et al. (2018) noted that some robo-advisers are limited in their behavioural cognisance of human financial decision-making, but argued that this presents both an opportunity and a challenge. The opportunity is to attract those consumers who currently do not have a financial adviser or are dissatisfied with their financial adviser, while the challenge will be to attract more financially savvy consumers such as high net worth individuals who require more complex financial advice.

2.3 Trust in Digital Technology and Services

The period following the financial crisis in 2008 was the perfect time to launch digital platforms and alternative advice mechanisms to cater for a market that lacked trust in advisers working for big firms and earning extremely large salaries and commissions. Trust in a traditional financial Advisery setting is generated by means of assurances and the adviser's knowledge, coupled with their physical appearance and resources. This trust is assessed by the customer separately from the actual service that is being

rendered and the final outcome of the deliverable (Parasuraman, Valarie, & Leonard, 1988).

Since traditional factors such as buildings and facilities, the physical appearance of employees, body language and responsiveness are non-existent when one uses online services, Urban, Sultan and Qualls (2000) found that it is imperative for customer satisfaction that trust play a role in shaping the experience, gaining repeat businesses, retaining customers and creating customer loyalty. Furthermore, Salo (2017) stated that within the financial services sector, particularly the investment management space, trust is still the key factor that shapes customers' decisions. Salo pondered how a business gains consumers' trust using digital advice so that adoption of the service is fast, noting that if the adoption of the service is quick, then the business has a chance to create customer satisfaction which may lead to customer loyalty. The switching costs between digital applications are relatively low due to the nature of the services and the number of incumbents in the market. Ruf, Back, Bergmann and Schlegel (2015) argued that although investment offerings and advice are very important, trustworthy and intuitive communication is equally important, and a lot of emphasis must be placed on this factor when designing a robo-adviser**.**

Mcknight and Chervany (2000) stated that there are two factors that shape one's perception of institutional trust: situational normality and structural assurance. McKnight and Chervany (2001) explained Situational normality as the principle that everything is operating the way it should in a properly ordered setting and environment ; Salo (2017) found that in an online setting this normality can be achieved through a user interface that is well designed, easy to use and efficient. McKnight, Choudhury, and Kacmar (2002) explained that structural assurance refers to the norms, standards, procedures and regulations that are enforced by authoritative bodies in order to ensure compliance and safety.

In this regard, the Financial Services Board (FSB) acts as the regulator within South Africa to ensure compliance with the Financial Intelligence Centre Act (FICA), and ensures that investment advice is provided that caters for investors' specific needs based on their financial needs analyses. This then provides the investor reassurance that their money is safeguarded from reckless advice (Mcknight & Chervany, 2000).

Balasubramanian, Konana and Menon (2003) found that customers' repeated use of a service, as well as the operational competence of the service, are extremely important in order to build trust for online applications and services. Familiarity with the service enables a customer to feel secure with the system and also potentially leads to word of mouth referrals. To further create and build trust, Nussbaumer et al. (2012) identified educational content, investment research, industry-leading analyst reviews and future market trends as tools that robo-advisers should provide to their customers.

2.4 Technology Acceptance, Adoption and Uptake

In their study of 1,700 customers of a German retail bank offering investment and financial advice, Königsheim, Lukas and Nöth (2017) ascertained that there is a positive correlation between the use of digital financial services and financial knowledge and literacy. They also observed a positive correlation between one's risk assessment and tolerance to the adoption and use of digital financial services. Other factors observed that were highly correlated were age, gender and income; the study found that older and less educated consumers tend to utilise more traditional, human-facing financial services.

The above implies that in order for fintech start-ups to attract a greater proportion of the market and compete with traditional offerings, they need to offer a higher relative advantage than the traditional offerings so that the benefits outweigh the perceived risks. Financial literacy and risk propensity, as well as a consumer's perception of the service, play a pivotal role in their willingness to adopt an unfamiliar product or service. The age of the consumer is extremely important for companies to consider when trying to understand how their fintech service will be adopted by the market (Königsheim, Lukas, & Nöth, 2017).

The Technology Acceptance Model (TAM) was developed by Davis in 1989 in order to analyse the factors and predictors of consumers in the acceptance and adoption of technology and technological services (H. Kim, Lee, Mun, & Johnson, 2017; Matemba & Li, 2018).

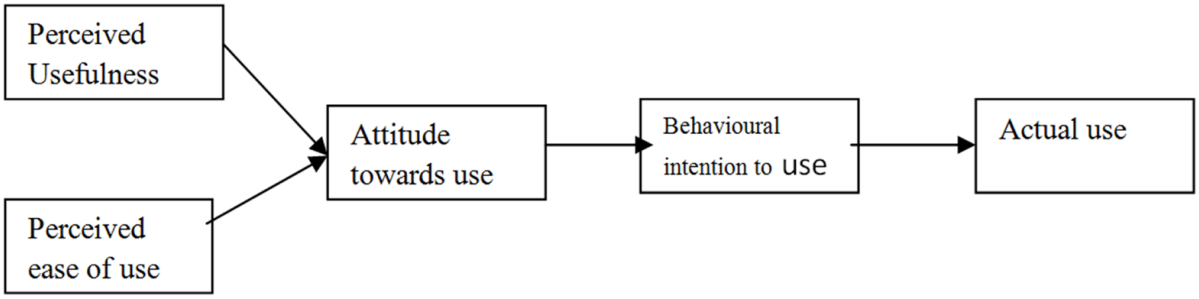

Figure 1: **Technology Acceptance Model (Tella & Olasina, 2014 p.50).**

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The Technology Acceptance Model shows that there are two determinants of a person's attitude towards using technology, which ultimately give rise to their intention to use it (Venkatesh & Davis, 2000). H. Kim et al. (2017) explained that perceived usefulness pertains to the benefit a consumer may derive from using technology versus the costs associated with it, whilst perceived ease of use refers to the actual technology itself and how complex it is perceived to be.

Davis (1989) and Matemba and Li (2018) stated that these can be applied to how customers feel when using the technology, as well as their feelings towards the practicality of the technology in relation to their specific lives, and how they will derive value from using it.

Figure 2 depicts the TAM after it was expanded by Venkatesh (2000) to include external variables that are relevant in determining consumers' acceptance of technology with specific regard to new technologies disrupting traditional financial services.

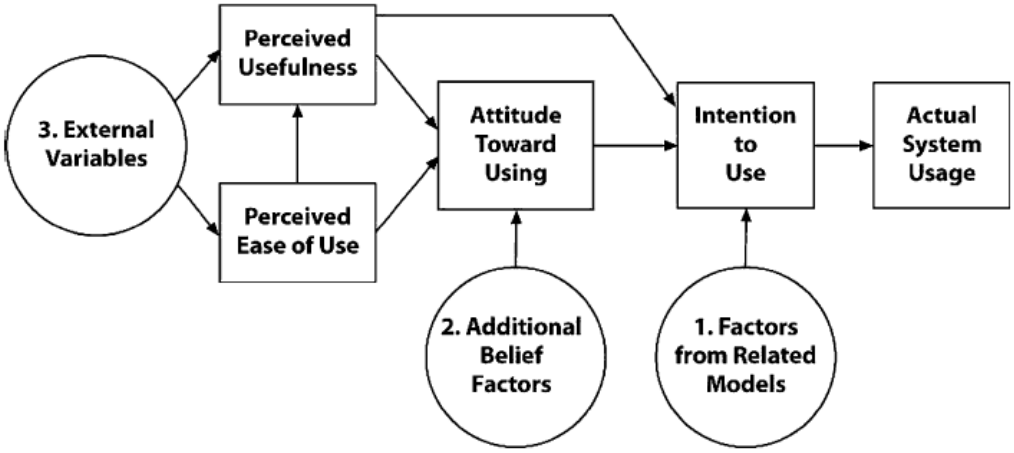

Figure 2: Extension of the TAM (Marangunić & Granić, 2015 p.87).

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Matemba and Li (2018) conducted a study in Johannesburg in 2017 regarding what influences South Africans to adopt and accept technology. Their study found that Davis' TAM needed to be expanded to include more in-depth psychological factors that influence people's adoption of technology. Key to people's willingness to adopt new technology are factors such as trust, security and privacy, whilst personality traits and demographic variables also shape consumers' acceptance. Research conducted by Marangunić and Granić (2015) had similar findings, however they explained how important it is for companies to include the factors from the extended TAM and constantly re-evaluate them for their relevancy.

The TAM is very insightful and keeping this model top of mind when developing a service utilising technology may be key to its success. It is useful to note that the TAM fits in well with the Lean Start-up Model examined below and provides valuable insight into what drives consumers to adopt technology.

2.5 Model for the Creation of the Business

2.5.1 Lean Start-Up Model

In 2011, Eric Ries published the Lean Start-Up Model, which was based on Blank's examination of customer development and how Japanese manufacturers use a lean method of production. The focus of the book was to bring forth a new, innovative way of managing start-up businesses (Boyd, 2017).

The Lean Start-Up Model describes customer involvement as the key factor in how a business is built, as well as how new products are designed, shaped and changed. Taking into account customer involvement, the business creates a minimum viable product (MVP) that goes to market and is constantly adapted to meet customers' needs (Blank, 2013). Boyd (2017) explained that the Lean Start-Up Model takes innovative ideas and constantly experiments with them in order to create a long-term sustainable business.

The lean start-up methodology is about decreasing the activities that do not add or create any value to the business in order to focus on exactly what the customer wants (Blank, 2013; Boyd, 2017). Ryu (2018) found that the goal of using a lean start-up approach is to create an MVP that takes into account the feedback given primarily by early adopters. Escobar-Rodríguez and Romero-Alonso (2014) explained that early adopters are seen as opinion leaders who have the ability to encourage others to adopt the technology and have an interest in doing so. Hoffmann, Probst and Christinck (2007) found that the rate of adoption grows exponentially in technology when it is tested thoroughly with early adopters, which is a vital step for any company creating and launching a technological application. In their study, C. Kim, Mirusmonov and Lee (2013) found that early adopters favour ease of use while late adopters respond well to usefulness. This provides further reasoning for the TAM to be applied in conjunction with the lean start-up methodology.

Andries, Debackere and Van Looy (2013) stated that for a start-up to succeed and have a better chance of long-term survival, it needs to deal with uncertainties. A good way of dealing with this is through experimentation, which is linked to customer involvement. It stands to reason that entrepreneurship and experimentation are intrinsically linked, thus the involvement of early adopters cannot be emphasised enough (Kerr, Nanda, & Rhodes-Kropf, 2014). The data collected from early adopters allow for pivoting or changing the direction of the business or product, designs, concepts and business models, whilst ensuring that costs are as low as possible. Blank (2013) and Boyd (2017) examined the phases of the lean start-up methodology as per the below:

Table 2: Phases of Lean Start-up Methodology

Phase	Name	Description
1	Building	Creation of new product or service
2	Measuring	Customer responses are observed and noted
3	Learning	The business actively collects quantitative and qualitative feedback from customers
4	Pivot or proceed	Business will either proceed with its original intentions or pivot to incorporate the feedback obtained to meet the customers' needs.

Boyd (2017) stated that launching an MVP as rapidly and cost effectively as possible is key, and that starting a business using the lean start-up approach requires constant learning and adapting. The process is utilised at the beginning stages as well as for the day-to-day running of the business, thus this model and approach will be taken when designing the business and creating the MVP.

2.6 Conclusion

The proposed business venture will be created by incorporating the Lean Start-Up Model and effectual thinking principles. Taking these principles and applying them to the business venture will enable me to think in a way that maximises the upside potential and minimises the risks, whilst utilising the founder's resources, networks, abilities and emotional intelligence to create a sustainable business with long-term success in mind. Placing the customer top of mind at all stages of development will be top priority; this will ensure the proposed business venture has the best chance of success and is constantly meeting the demands of customers.

3. Research Methods

3.1 Research Approach

A quantitative analysis utilising online surveys that were disseminated via email were used to obtain data in order to ascertain the desirability and viability of the proposed business venture and the creation of an MVP. The analysis resulted in a descriptive research study based on a sample from the population. This enabled me to identify the desired characteristics of the sample and extrapolate those findings to the general population using a cross-sectional survey (Omair, 2015). This research approach was utilised in order to create an understanding of whether or not there is a need for the proposed business venture within the millennial market in South Africa.

3.2 Research Design

Descriptive cross-sectional research that used a representative sample from the population was used to generalise the findings to the broader population. Although there was only a single sample, elements of the research that utilised a more analytical approach in order to establish associations but not causation were used (Omair, 2015). The research design incorporated millennials as they will be the initial target market of the business. The surveys could be completed in a short space of time and the environment surrounding the sample was not altered in any way, in order to extract data that were a true reflection of the proposed target market and to allow for more accurate data observation.

3.3 Population and Sample

3.3.1 Population

According to a community survey conducted in 2016 by Stats SA, there are approximately 15 million South Africans between the ages of 20 and 34 (Lehohla, 2016). As there are differing views as to which exact years millennials were born in, this research has used the timeframe of 1984 to 1998.

The millennial generation will be the primary target market at first, and will look to attract customers from within this target market who have obtained a bachelor’s

degree or higher. There are 1.3 million South Africans over the age of 20 who have obtained a bachelor's degree or higher, with 75% of these being between 20 and 34 years old (Lehohla, 2016).

In order to conduct the survey, the sample subjects needed access to the internet. In South Africa, over 11 million people have access to the internet at their place of work, university or college, or via a cell phone or other mobile device (Lehohla, 2016). The survey was sent to subjects in Gauteng, where the number of people with access to the internet is 4.7 million (Lehohla, 2016).

3.3.2 Sample

The sample was created using convenience sampling, which forms part of non-probability sampling. This sampling method makes it easy for a researcher to reach participants and distribute surveys, and has the potential to increase the number of responses obtained (Sharma, 2017).

As the sample was created through convenience sampling, the researcher's own network was utilised to create a sample that was truly representative of the potential target market. This resulted in reliable data being collected.

The sample size was approximately 300 people, with the aim being to get at least 35% of this sample to respond to the survey, i.e. 105 respondents.

3.4 Research Instrument

The questionnaire (see Appendix B) was made up of closed-ended questions comprised of ordinal questions, scales and dichotomous questions. This mix of questions provided a thorough understanding of the respondents' attitudes and thoughts on the questions posed, enabling the researcher to achieve the research objectives.

3.5 Data Collection Strategy

The data collection strategy was to utilise a survey designed using research software from Qualtrics. Qualtrics is an online tool that provides a platform to create, distribute and analyse survey results which allowed for the monitoring of various data, including

how many people had taken the survey as well as how many had opened it, finished it or not completed it. The survey was sent to the sample via email link directly.

3.6 Data Analysis

The data were analysed utilising descriptive and inferential statistics. The descriptive statistics enabled me to graphically show information from the sample surveyed, provide trends of the data and estimate variability, which provided a good basis for inferential techniques (Larson-Hall & Plonsky, 2015). This helped me to identify patterns within the data and provide observations, which I used to make inferences. I used pivot tables to gain further insight into the data collected.

Inferential statistics then allowed me to make conclusions, predictions and judgements of probability about the population based on the data collected from the sample. They also allowed for certain inferences to be made (Larson-Hall & Plonsky, 2015). A Spearman's Rank-Order test was conducted in order to measure relationship strengths between two variables from the data. A Cohen's d was utilised to determine the strength of the relationships with a correlation coefficient of 0-0.3 indicating a small effect, 0.3-0.5 medium and 0.5 and greater a large effect. These relationships were examined and tested at a significance of 95% and over.

3.7 Limitations of study

The limitations of the study are as follows:

- Use of international literature may be limited in its application to the South African market.
- Small sample size
- Assumptions made on millennial behaviour
- Assumptions made on business plan pertaining to, financial projections, timeline and process of launching the business
- Cross –sectional study used due to time constraints

3.8 Ethics

This research was conducted to the highest ethical standards and all respondents will remain anonymous (see Appendix A). No conflicts of interest existed, and I did not stand to gain anything financially from the respondents' participation. No one in the sample was incentivised or coaxed to take part. Ethical clearance was granted by Wits Business School.

4. Data analysis and results

4.1 Introduction

This quantitative research study utilised a survey to carry out exploratory research to determine the desirability of the millennial market in Johannesburg, South Africa, to adopt digital financial advice from a robo-adviser. The survey was sent out to individuals who had at least a bachelor's degree, lived in Johannesburg, earned a monthly income and was in the millennial age band. The survey was open for two weeks, of the 200 surveys distributed a total of 145 respondents completed the survey. The analysis and results link to the literature analysed, in terms of Fintech and Robo-adviser in order to show desirability as well as TAM and trust in digital to conclude uptake of the application, design features to be incorporated and target markets within South Africa. The data analysis below examines critical findings using frequency graphs and descriptive statics to make inferences and derive certain conclusions.

4.2 Frequency and Descriptive Statistics

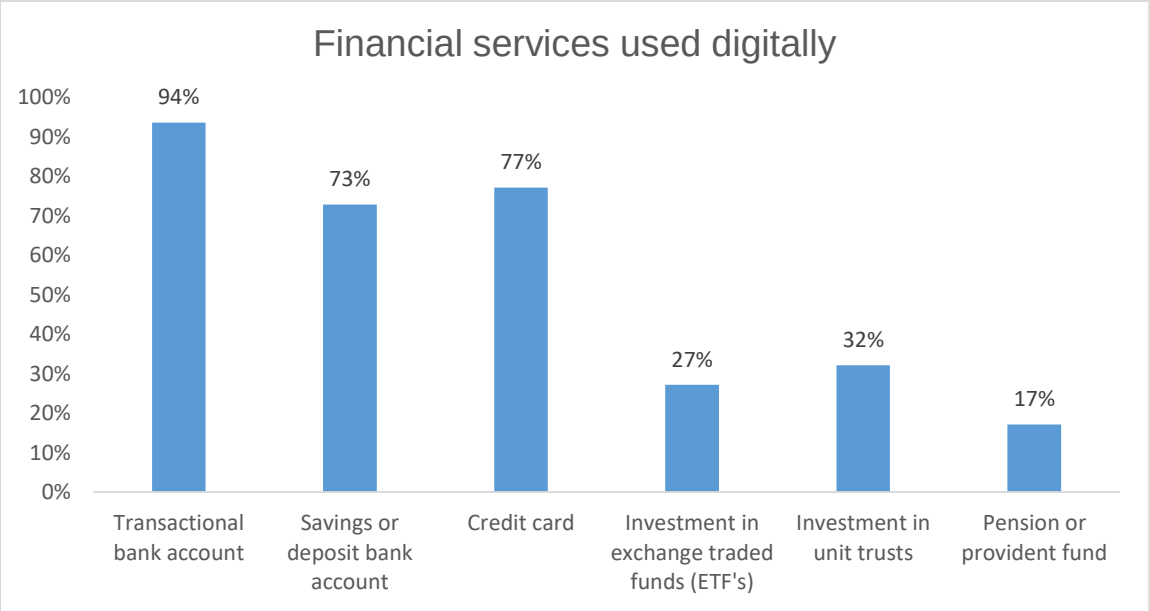

Figure 3: Financial services used digitally

When ascertaining which digital financial services millennials use, 12 options were provided, with the top three responses being transactional bank accounts, savings or deposit accounts, and credit cards, i.e. traditional banking services. The next three

most used services were ETFs, unit trusts and pensions or provident funds. Although these are not used as frequently as the top three, they indicate the willingness of millennials to utilise investment products and applications through a digital platform. All other options scored below 5%.

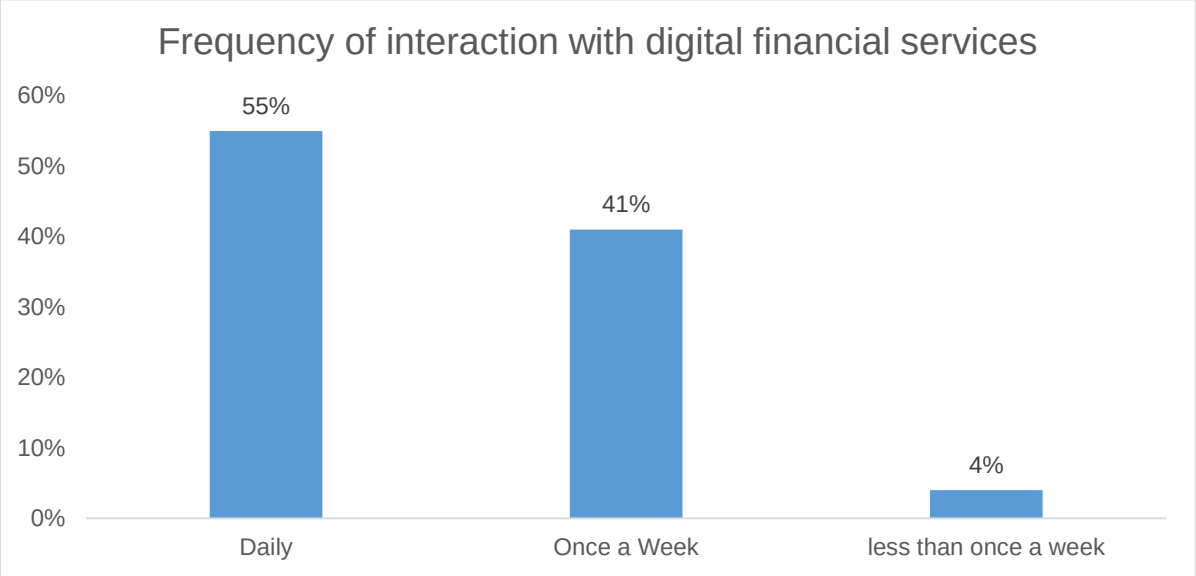

Figure 4: Frequency of interactions with digital financial services

In order to show a propensity for millennials to utilise the robo-adviser application, there was a need to establish the degree to which they use financial services on digital platforms. Virtually all (96%) the respondents indicated that they used a digital financial service at least once a week.

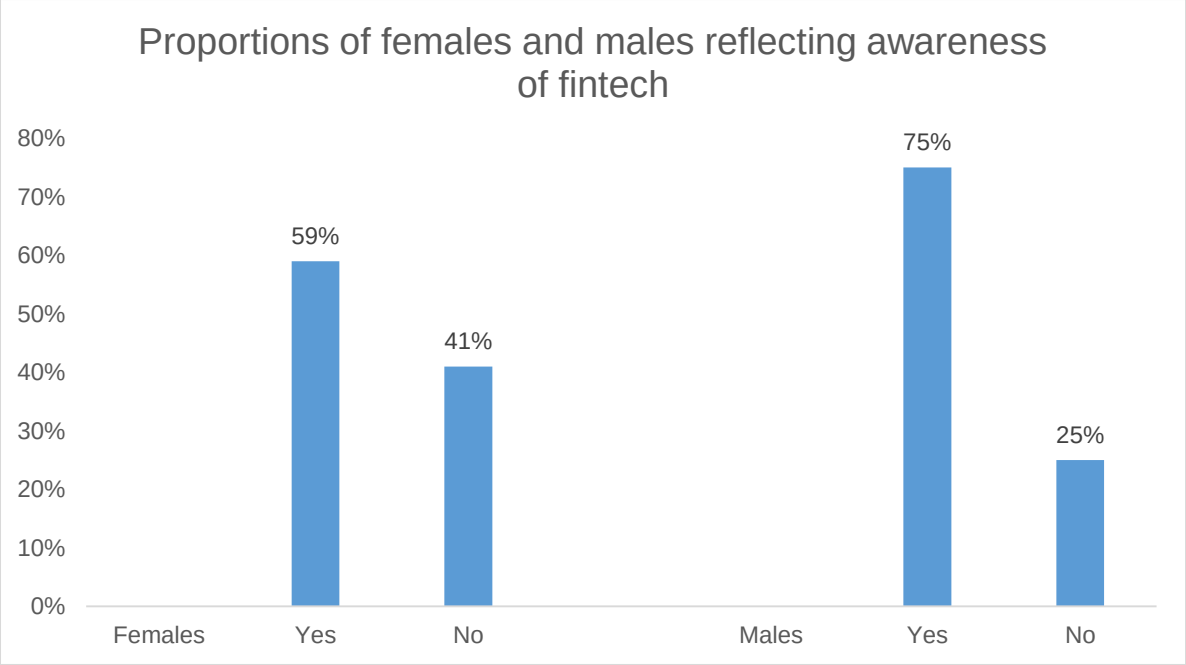

Figure 5: Proportions of females and males who are aware of fintech

The graph above indicates that 75% of the male respondents were familiar with the term ‘fintech’, whilst only 59% of females were. This indicates that although millennials utilise digital financial services, the use of the word ‘fintech’ in the marketing of the robo-adviser should perhaps be kept to a minimum initially. Once the MVP has been further developed and consumers are better educated, the inclusion of more jargon can be incorporated. Educating millennials on what fintech is and the benefits of this technology may be important in designing the marketing approach, to potentially eliminate confusion within the target market which links to the literature reviewed by (Nussbaumer et al., 2012).

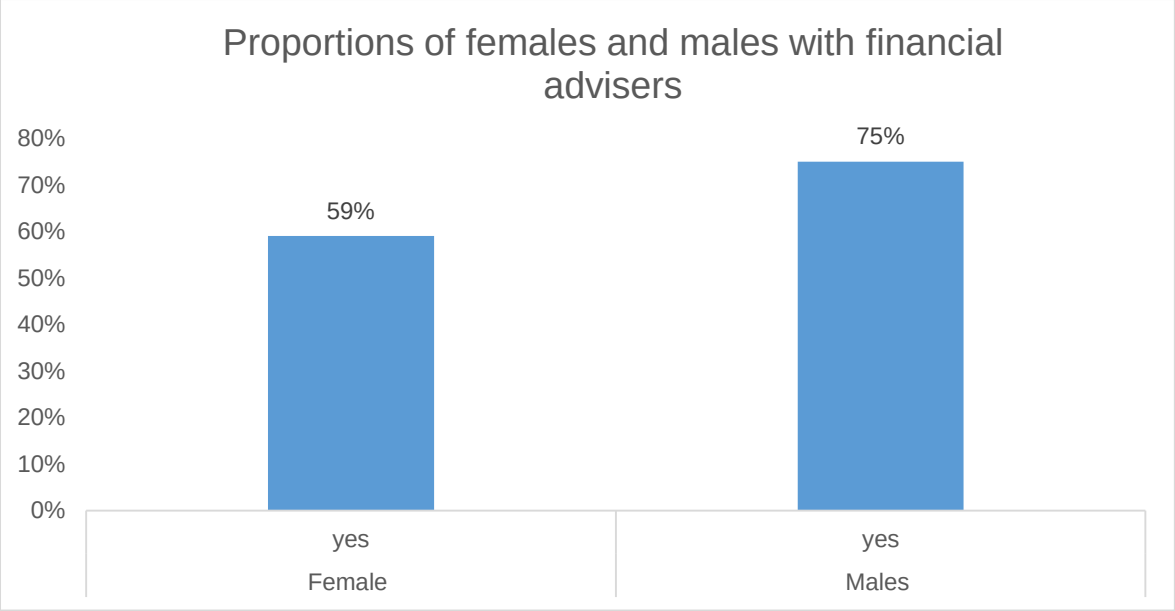

Figure 6: Proportions of females and males with financial advisers

Only 101 respondents had a financial adviser, which further emphasises the business case for a robo-adviser. The results for this question were broken down into responses from males (75%) and females (59%) in order to identify an initial target market.

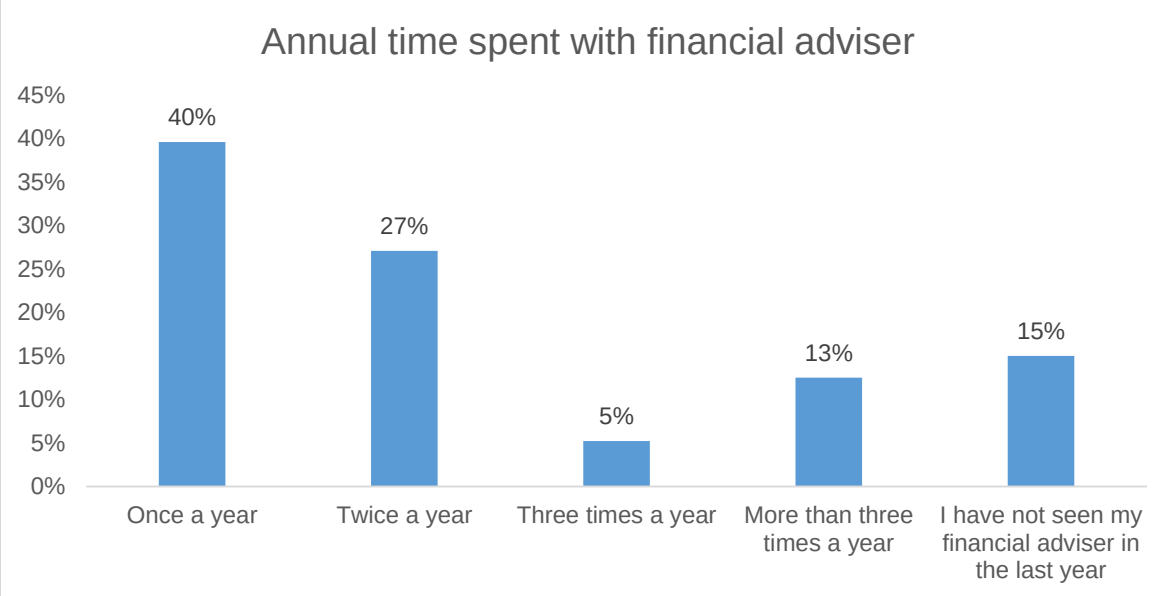

Figure 7: Annual time spent with financial adviser

Most (85%) respondents see their financial adviser at least once a year, whilst 45% see them at least twice a year. This indicates that millennials play an active role in the management of their personal financial affairs. One can thus infer that millennials are interested in their financial situation and would require at least one interaction or update of their portfolios per year, which can be built into the robo-adviser.

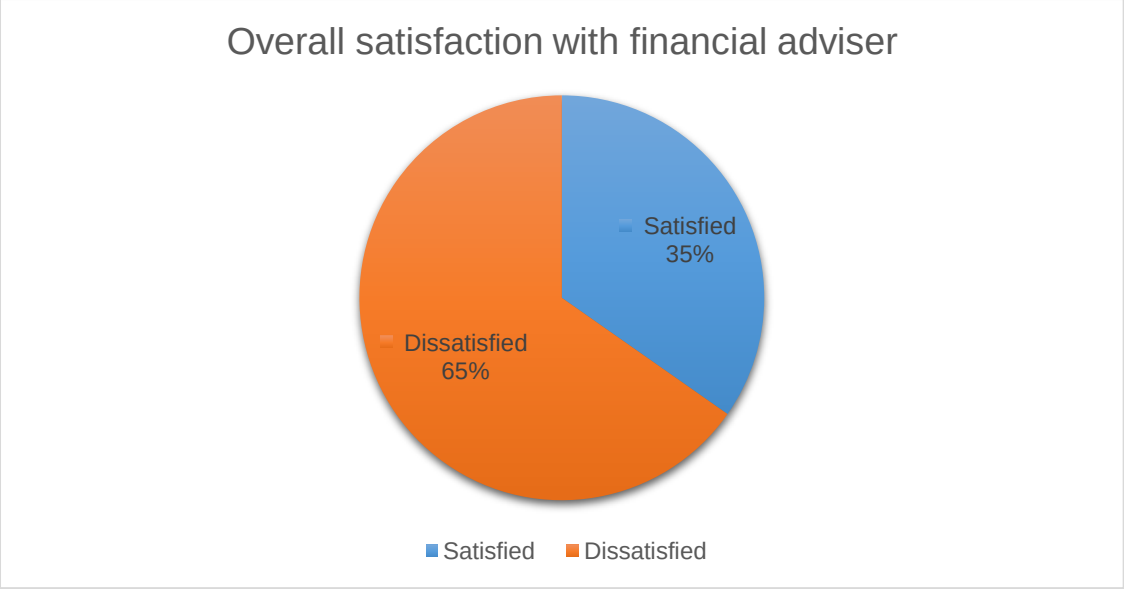

Figure 8: Overall satisfaction with financial adviser

In order to infer the potential willingness amongst millennials to switch and use a robo-adviser, seven questions/statements regarding respondents' interactions and dealings with their financial advisers were put to them:

1. Your financial adviser's recommendations are tailored to your specific needs.
2. Your financial adviser has in-depth knowledge regarding investments.
3. Is your financial adviser readily available when you require them?
4. Your financial adviser takes an interest in your personal life.
5. You enjoy spending time with your financial adviser.
6. Your financial adviser follows up with you after meetings.
7. Overall you are satisfied with your financial adviser.

Using the first six questions/statements as a cross tabulation and filter, I matched these answers to their overall satisfaction. Only 35% of respondents were found to be satisfied with their financial advisers.

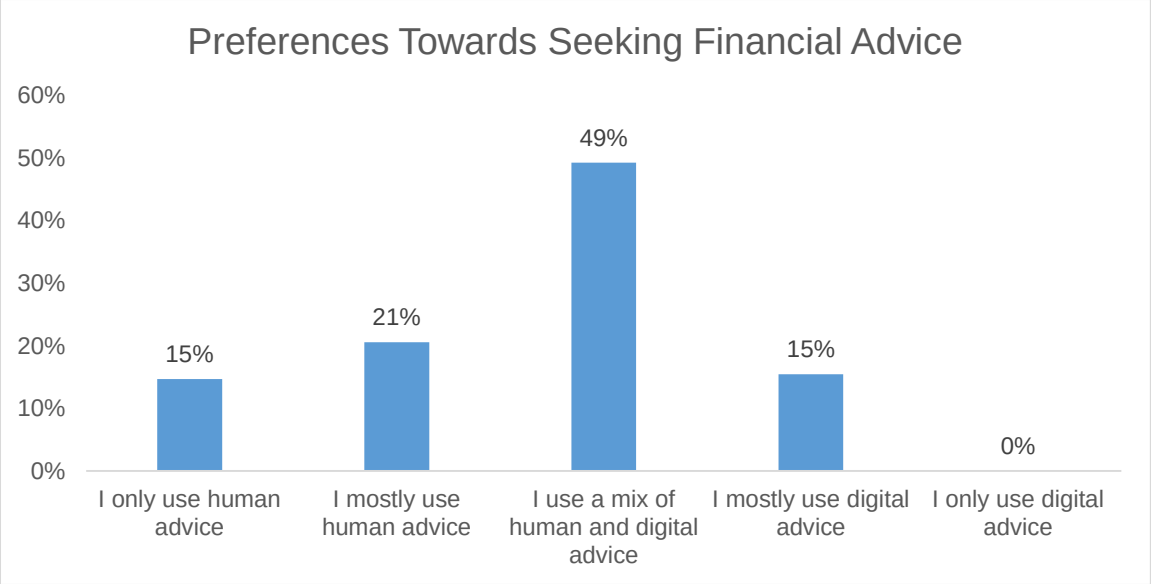

Figure 9: Preferences towards seeking financial advice

The graph above depicts the responses regarding millennials' preferences for seeking financial advice. It is encouraging to note that 64% of the respondents either use a mixture of human and digital financial advice or mostly digital advice. One can infer based on this that the majority of millennials are comfortable utilising digital advice as their primary means of obtaining financial information. This aligns well with Cocca (2016) who argues that millennials find it more important to have access to online financial services rather than face to face.

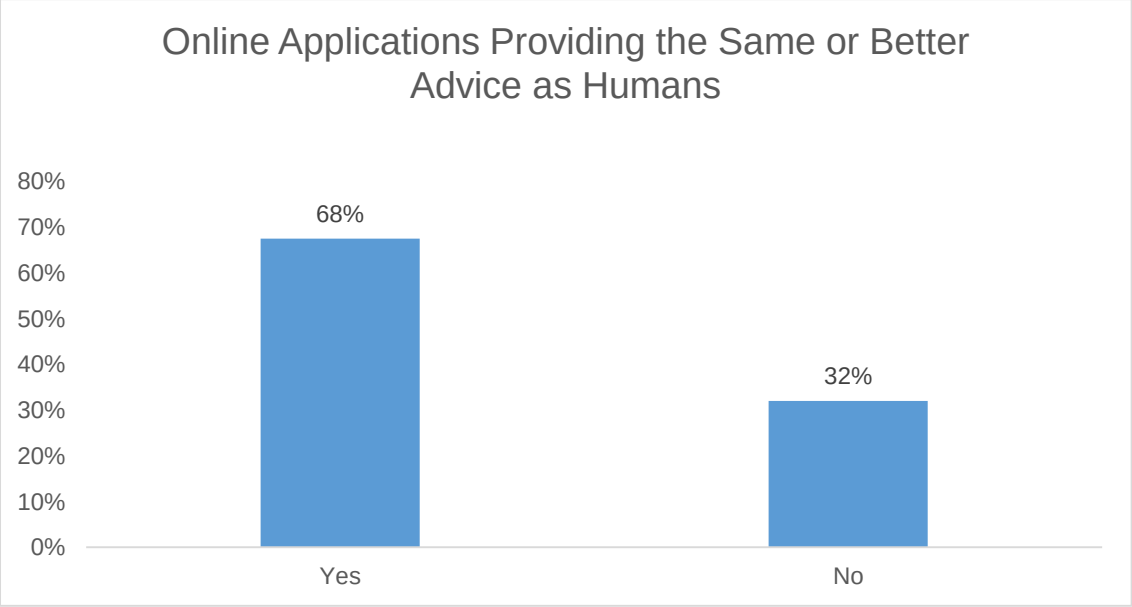

Figure 10: Online applications provide the same or better financial advice as humans

The above graph illustrates that 68% of the respondents agreed that online applications have the ability to provide the same or better advice than humans in terms of financial services and investment advice. As 32% disagreed with this statement, it may indicate a need to prove the concept first in order to create buy in and adoption of digital financial advice.

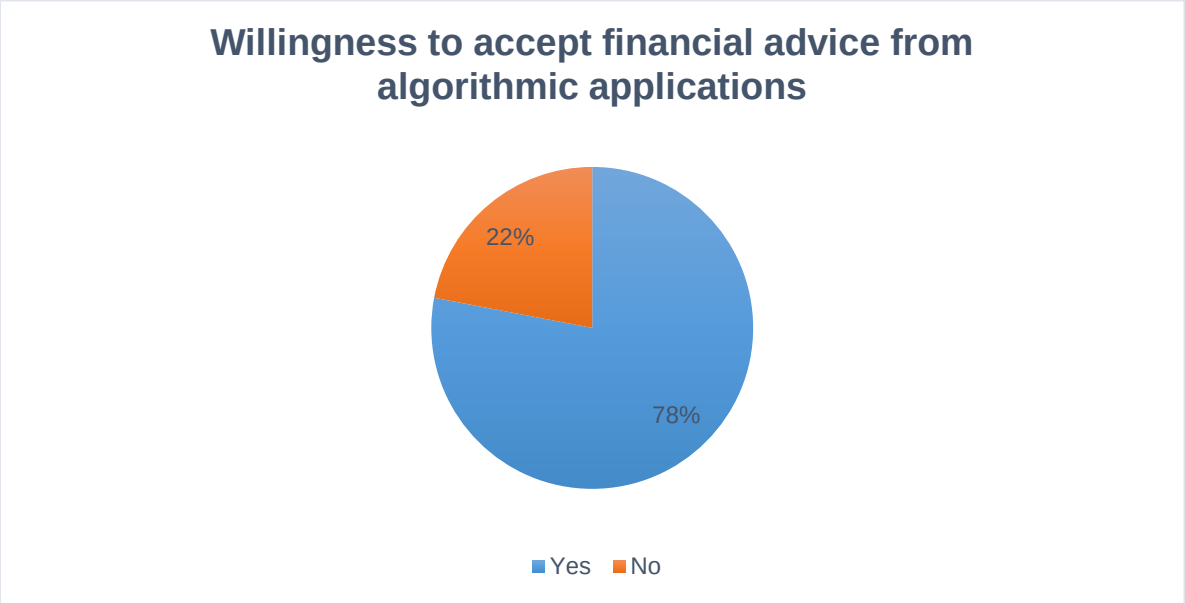

Figure 11: Willingness to accept financial advice from algorithmic applications

One can deduce that most millennials (78%) are willing to use a technology-based application that provides investment advice driven by algorithms tailored to specific customer needs. This links directly to Gomber et al. (2018) and Nicoletti (2017) who stated that fintech applications must be customer centric. The concerns of the remaining 22% can be addressed via educational content within the robo-adviser as well as back-end support.

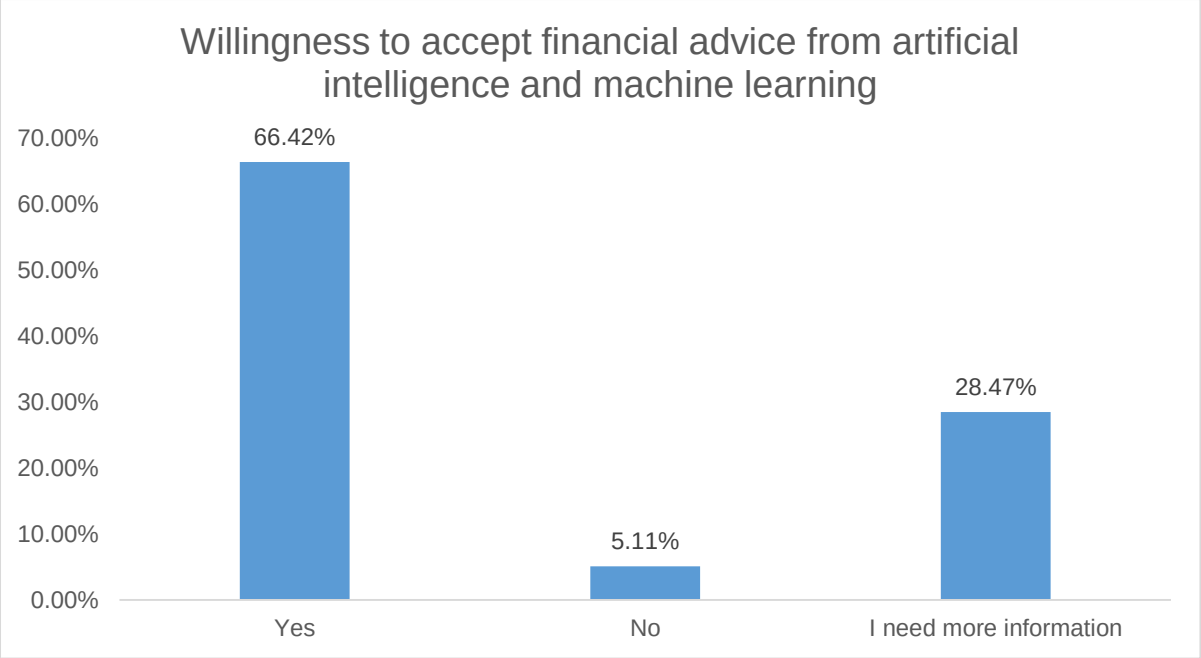

Figure 12: Willingness to accept financial advice using AI and machine learning

This graph highlights that the majority of respondents (66.42%) are willing to accept financial advice from artificial intelligence and machine learning applications, which supports their acceptance of algorithm-based investment advice. This proves that there is a market for the services of a robo-adviser, however there is a need for more information and education around financial advice that is delivered through technology.

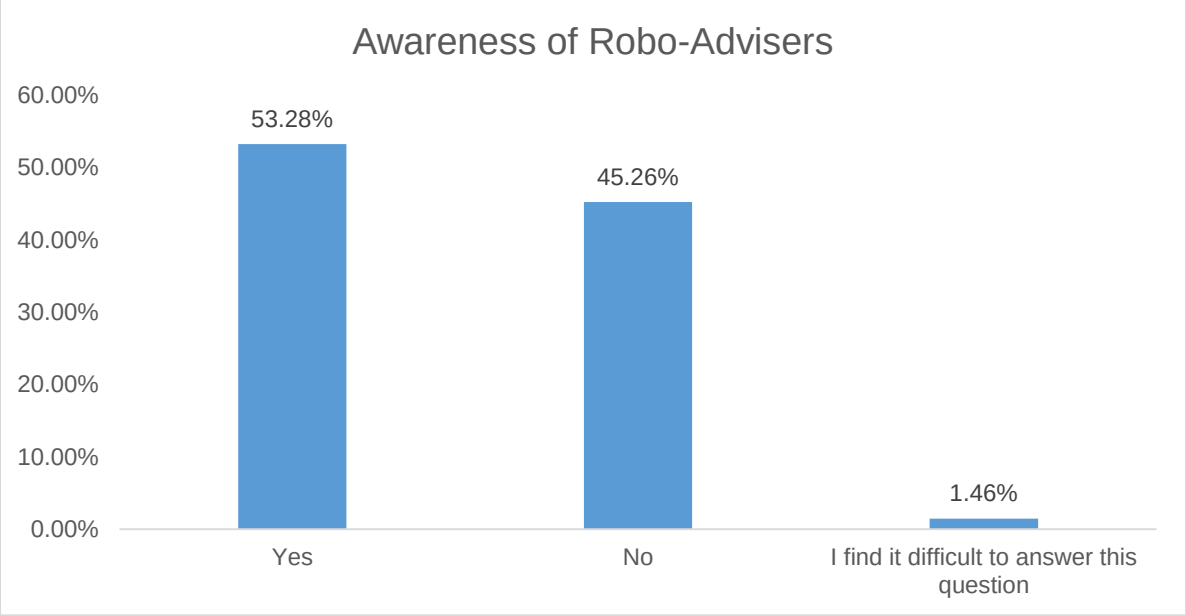

Figure 13: Awareness of robo-advisers

Based on the graph above, 53.28% of the respondents had heard of a robo-adviser, which reinforces the need for marketing and educational content of what a robo-adviser is, its benefit to consumers, and how it functions.

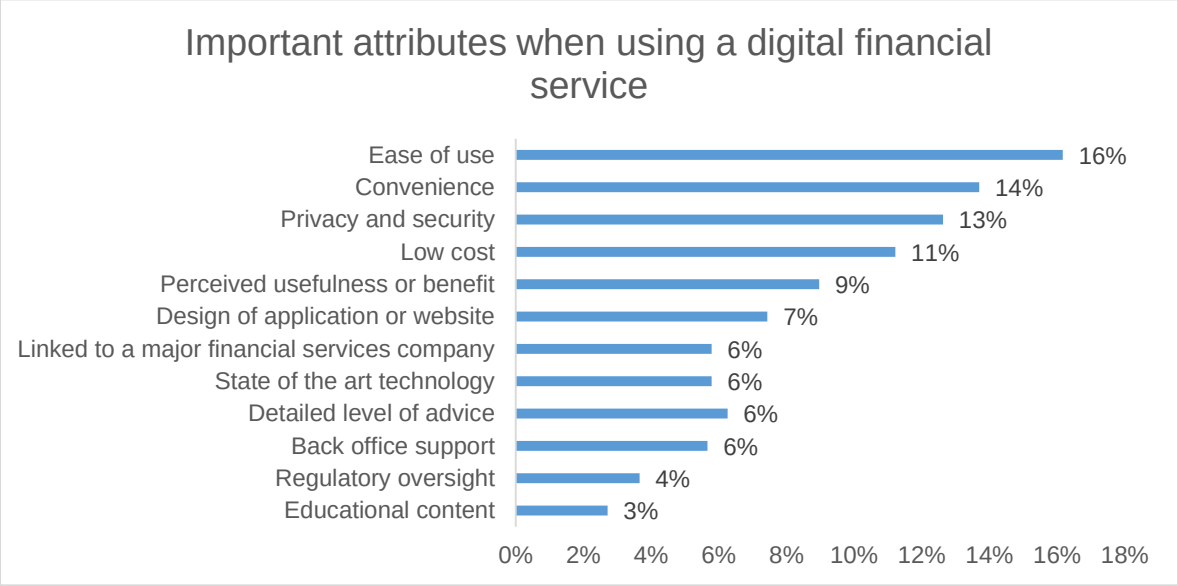

Figure 14: Important attributes when using a digital financial service

The respondents were asked to choose what the most important attributes are to them when using a digital financial service from: ease of use, convenience, privacy and security, low cost, and perceived usefulness or benefit. These attributes, amongst others, will be incorporated into the MVP in order to attract and retain customers. It is noteworthy that regulatory oversight was only chosen by 4% of the respondents, which

is contrary to Salo's (2017) theory that a digital financial service must include structural assurance in order to be trusted.

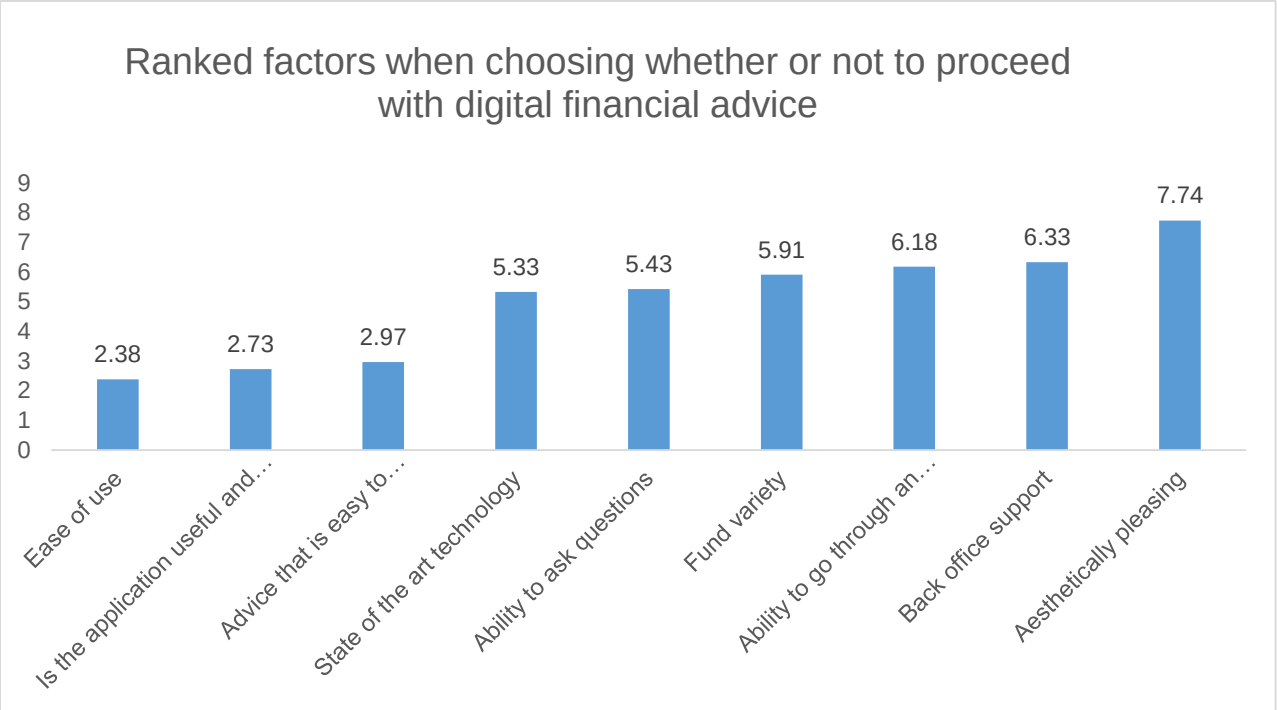

Figure 15: Ranked factors when choosing whether or not to proceed with digital financial advice

In terms of the TAM, Davis (1989) found that ease of use and perceived usefulness were the two determinants for technology acceptance and adoption. As per Figure 15, this is still true today. The respondents were asked to rank in order of importance the factors they think are important when choosing whether or not to use digital financial advice. The results were collated and ranked according to the mean results. The two highest ranked factors from the study were “Ease of use” and “Is the application useful and will it benefit me?”. These two factors both scored a mean of below 3 which is significant. It is thus key to ensure that the robo-adviser is able to satisfy these two factors. The next most important factor was “Advice that is easy to understand and relevant”, which will also be included. It is significant to note that the top three factors all rank relatively highly, but after the top three, the next important factor (“State-of-the-art technology”) ranked just 5.33. The six factors ranked between 5.33 and 7.74 are still significant, however, and will be taken into account when I design and build the application.

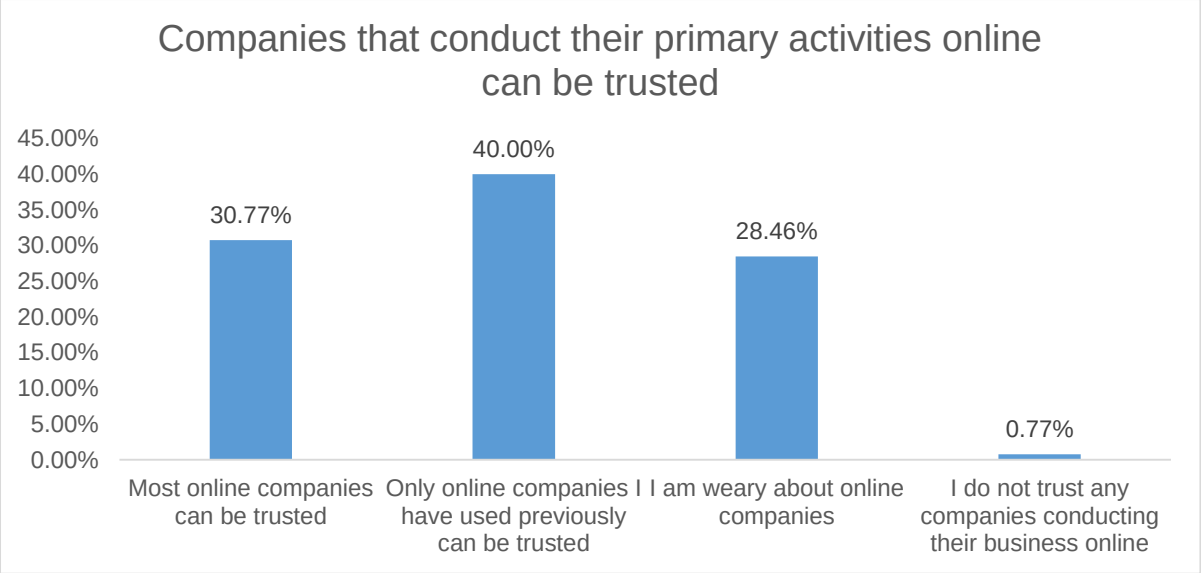

Figure 16: Companies that conduct their primary activities online can be trusted

In testing whether or not companies that conduct their primary activities online can be trusted, the results were mixed. Approximately one-third (30.77%) of respondents stated that most online companies can be trusted, 40% stated they would only trust an online company that they have used previously, and 28.46% said they are wary of online companies. This aligns to Balasubramanian et al. (2003), who stated that repeat usage is the basis for trust in online applications. This emphasises the need for privacy and security, which is within the top five attributes wanted for an online application. The hurdle will be to get consumers to overcome their concerns about their personal data being shared or used for anything other than the service at hand, which can be achieved via numerous methods including cyber security. This data links to Urban et al.'s (2000) findings that trust is key in shaping any online application. Once trust is obtained there tends to be repeat business, customer loyalty and retention.

4.3 Inferential Statistics

The following additional relationships were examined for significance based on the responses from the research survey:

Table 3: Inferential Statistics

Variables	Description*	Correlation Coefficient	Strength
Fintech awareness vs. overall financial adviser satisfaction	Negative relationship exists	-0.362	Medium
Financial advice tailored to specific individual needs vs. acceptance of advice from algorithmic applications	Negative relationship exists	-0.247	Small
Fund or ETF variety vs. Advice tailored to specific customer's needs	Positive relationship exists	0.142	Small
Usefulness of application to consumer vs. stress of managing personal finances	Negative relationship exists	-0.240	Small
Online companies can be trusted vs. state-of-the-art technology	Positive relationship exists	0.198	Small

*A negative relationship implies that there is an inverse relationship between the two variables. A positive relationship implies that there is a directly proportional relationship between the two variables.

4.4 Conclusion

According to the findings, there is a willingness amongst the millennial market in Johannesburg to receive digital financial advice from a robo-adviser. The awareness of this market about new technologies is evident, and there is clearly a gap in the market for a robo-adviser given their lack of satisfaction with current financial advisers and the usage of digital platforms for seeking advice on personal investment and financial matters. The results gathered will be utilised to build the business going forward and implement appropriate marketing strategies whilst ensuring operations and the application is designed and built with the customer and their preferences top of mind, thus ensuring maximum customer centricity. Overall the findings are highly encouraging and provide a sound foundation for designing and building a robo-adviser.

5. Situational Analysis

5.1 Industry and Competitor Analysis

My Financial Coach will operate a robo-adviser in the financial and investment adviser industry. The financial adviser industry in South Africa is made up of independent financial advisers and TIED financial advisers who work as agents for big insurance companies or banks. The financial Advisery industry in South Africa has typically not been innovative when it comes to technological enhancements and innovations for their customers in terms of providing advice. Despite a huge push towards automation and the evolution of financial and investment advice utilising technology across the world, South Africa has been lagging in this regard due to its smaller population and underdeveloped markets (Consultancy, 2018). There has, however, been a shift within the South African market amongst millennials, as per the data highlighted in Figure 5 of the data analysis and results. Furthermore, Figure 9 provides further evidence for this by indicating their preference towards seeking financial advice online. The financial Advisery and investment industry has long been plagued by consumers who are disgruntled with their advisers for the fees or commissions they pay. Currently, financial advisers earn their commissions by either charging an upfront fee, in which a percentage of a client's money is taken up front as payment, or by levying ongoing or annual fees, which are a percentage of a client's overall portfolio or assets invested. These fees or commissions have been abused by advisers and clients often do not understand how their adviser is remunerated, leading to anger and frustration (Heathcote, 2014). The other side to this is the fees investors pay for their actual investments in unit trusts or other investment products. Once again, these fees are charged as percentages of the total amount invested, are often extremely complex to work out, and are rarely displayed in a transparent, easy to understand way (Ruzicka, 2017). As a result there has been a tremendous global shift within the industry, including South Africa, regarding the costs levied on clients by financial advisers as well as the investment and insurance houses. South Africa in particular is starting to adopt new legislation in which financial advisers will be forced to disclose their fees in a more transparent way, as well as potentially offering clients the opportunity to pay a fixed hourly rate (Smith, 2016). South Africa is starting to attract more money into

ETF's which bodes well for the launch of the robo-adviser, which will only utilise low cost index tracking funds due to consumers' sensitivity to investment fees.

Figure 17 below indicates the familiarity with the term 'exchange traded funds' within the South African millennial market. Just over half (56.16%) of the respondents were at least somewhat familiar with this term, which bodes well as the robo-adviser will only use these types of investments. It also indicates a need to educate consumers about the benefits of utilising low cost ETFs, however.

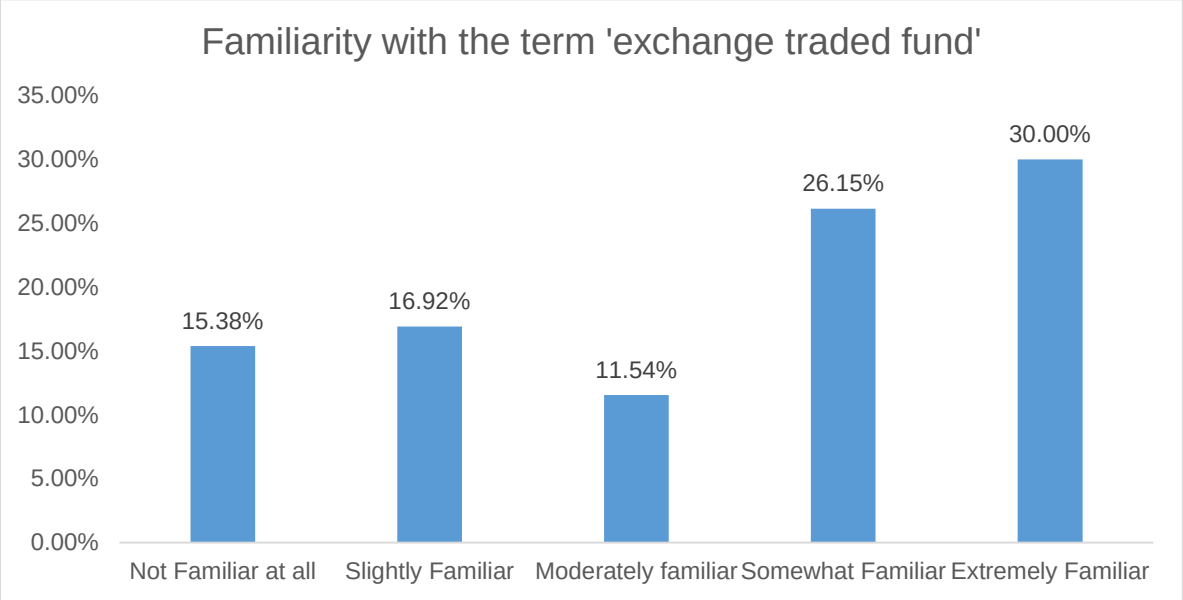

Figure 17: Familiarity with the term 'exchange traded fund'

5.2 Competitor analysis of current robo-advisers within the South African market

There are currently five robo-advisers in the South African market, however these are linked to major insurance or banking companies that only advise clients on their own specific investment products, i.e. there is little to no objectivity in the advice being offered (Kolver, 2018).

Table 4: Robo-adviser offerings in South Africa

Company	Description
Sygnia Robo-Adviser (This is the only company offering ETFs)	• Offers ETF options. • Helps investors design their own investment strategies. • Investments are managed by the company's staff and not their robo-Adviser (Kolver, 2018).
Sanlam Smart Invest	• Helps identify the right combination of funds. • Only provides shortfalls in terms of a client's retirement and short-term investing. • No ETFs (Kolver, 2018).
OUTvest	• Only has five investment funds which belong to the company. • Users manage their money via a smartphone application. • Only provides advice that can be satisfied utilising their five investment funds (Kolver, 2018).
Bizbank	• Backed by an asset management company. • Investors can invest in individual shares. • Includes investment calculators (Kolver, 2018).
Absa Virtual Investor	• Asks more in-depth questions regarding investors' risk appetite and goals. • Only able to access Absa's unit trusts (Kolver, 2018).

5.3 Porter's Five Forces Model

Another way to measure and monitor industry competitiveness is by using Porter's Five Forces Model. This model aids companies, especially start-ups, to anticipate competition within the marketplace. Understanding the competitive landscape of an industry will assist with effective strategy positioning and guide decision-making going forward (Porter, 2008).

Threat of new entrants

The threat of new entrants within the financial Advisery space in South Africa is relatively low. There are currently 30,000 registered financial advisers in South Africa, of which at least 65% are active (Lamprecht, 2016). There is a small threat in terms of new individuals becoming financial advisers and further diluting the market, however when it comes to robo-advisers, the upfront spend is a barrier to entry that is relatively high. I have also accumulated knowledge from within the industry over the past five years and have an established client base.

Threat of substitutes

In terms of substitution, there is currently no real substitute for human financial advice other than a person doing their own personal research online. In effect, the robo-adviser will become the substitute for traditional human financial advisers, with only few competitors already serving this market. The robo-adviser will perform the same job as human financial advisers, but the delivery method will be different. The threat of substitution is thus low, therefore profitability should be high (Porter, 2008).

Bargaining power of suppliers

In terms of asset management services that offer ETFs, there are roughly 100 ETFs and providers that investors can choose from (Klein, 2018). This limits their bargaining power as there is not a major concentration of ETF suppliers (Porter, 2008). The product developers and technology houses do, however, have bargaining power due to the scarce professional resources they possess and the knowledge needed to build and create software to satisfy the market. Few companies can accomplish this in South Africa, giving them high bargaining power in terms of pricing.

Bargaining power of buyers

Within the financial Advisery space, clients have high bargaining power in terms of choice of human financial adviser, of which there are thousands. There are also robo-advisers from which potential investors can choose, however these are affiliated to specific companies which may deter potential investors. Potential buyers do have negotiating leverage over the firms and advisers in this industry, which means that quality service is key (Porter, 2008). The caveat is that the switching costs between advisers is relatively high. This may be because people are sceptical of trusting others as well as the time, effort and energy it takes to find an adviser they trust. It may also prove difficult to switch investments from fund to fund, as this may have tax implications.

Competitive rivalry

As stated above, there are many large insurance companies and banks with financial advisers attached to them, as well as numerous independent financial advisers. The big companies have large marketing budgets and the ability to cut costs to a certain extent. There is also the issue of a smaller market as the South African economy is growing very slowly, i.e. as the pool of potential clients is not growing, everyone in the market is fighting for the same business. The advantage is that the company will be small and agile, and will endeavour to build the product, measure the responses, learn from feedback and then constantly develop what the market is asking for.

6. Business Objectives and Competitive Advantage

6.1 Vision

The vision for My Financial Coach is to be more than just an investment adviser, but to ultimately become an investors' trusted financial confidant when it comes to all things regarding personal finance. Ultimately, My Financial Coach will be able to perform all the tasks that a human financial adviser can but more efficiently and effectively, thus transforming the financial Advisery industry into a cutting-edge, technologically enhanced super power.

6.2 Mission

The mission of My Financial Coach will be to attract, educate and retain investors, in order to provide the ultimate in investment and financial advice. The mission is to provide high quality investment and financial advice to any consumer who is willing to invest in themselves and their future. My Financial Coach will also aim to have a social impact on consumers by educating people of all ages about becoming financially literate and independent.

6.3 Value proposition

The value proposition for customers will be unbiased investment and financial advice at a very low cost, using an efficient and accessible customer-centric platform that promises privacy and security with the ability to achieve financial freedom through education and technology.

6.4 VRIO Analysis

The VRIO analysis below sets out the capabilities and resources My Financial Coach will possess that will create a sustained competitive advantage.

Table 5: VRIO analysis of My Financial Coach

V - Value	• Technological nature of the business provides customers with easy access to the application. • A complex algorithm providing tailor-made investment advice based on individual needs. • The robo-adviser will be compliant to the highest legal and ethical standards. • Only robo-adviser in South Africa not linked to a major bank, insurance or asset manager. • Diverse investment offering • Quality software development company. • Lean Start-up Model followed to launch the company and MVP. • On-going quantitative and qualitative data collection and analysis.
R – Rarity	• Competition may find it difficult to imitate due to their limited product and investment offering. • High level of desirability and interest as seen from data collected and analysed. • Provides a temporary competitive advantage as the company possesses valuable and rare resources. • Lean Start-up Model provides a temporary competitive advantage.
I - Imitability	• Algorithm is proprietary. • Industry knowledge of founder is vast, resulting in a temporary competitive advantage. • Primary data collected from target market provides valuable insights.
O – Organisational Value	• High intellectual capital of founder and venture capitalist investors. • Lower internal employee resources initially but high support from outsourced companies. (Software development, marketing and compliance companies.) • Internal management controls and capabilities of managing and coordinating multiple operational and strategic activities and resources.

Overall, the competitive advantage will be realised by providing customers with benefits and advantages that outweighs the perceived costs which links to Königsheim et al. (2017), this will ensure uptake of the application and potentially maximum usage within the market.

7. Marketing strategy

The priority of the initial launch will be to target early adopters as per the lean start-up methodology. These adopters will be within the selected target market so that I can obtain valuable feedback with which to improve and enhance the product and service offering.

7.1 Target market

Based on Literature reviewed and data analysed, the initial target market will be the millennial age band within Johannesburg due to age being a major determinant of technological uptake according to literature reviewed by (Königsheim et al., 2017). In terms of this generation, Cocca (2016) found that it is more important for them to have access to online financial services than traditional, face-to-face services. Stewart, Oliver, Cravens and Oishi (2017) noted that the characteristics that make up the millennial generation can be extrapolated to other countries across cultural, ethnic and gender lines. The significance of the data in **Figure 6** of the data and results section is that 41% of females do not have a financial adviser, which provides an immediate opportunity to target this demographic. The male market may potentially be harder to target initially, as only 25% of the respondents indicated that they do not have a financial adviser. Due to the fact that this business will start out as an MVP, there is still a sufficient market to target and gain market share.

It is also noteworthy that there is a lot of room for converting people to a digital, non-traditional financial or investment adviser. This will take time, however, as initially it will be a lot harder to take on traditional financial advisers head on. Further emphasising the need to target both males and females is their generally low satisfaction with their financial adviser, as per **Figure 8** in the data and results section. Although the majority of respondents do have a financial adviser, 65% are largely dissatisfied, which should enable me to start making inroads into this market segment.

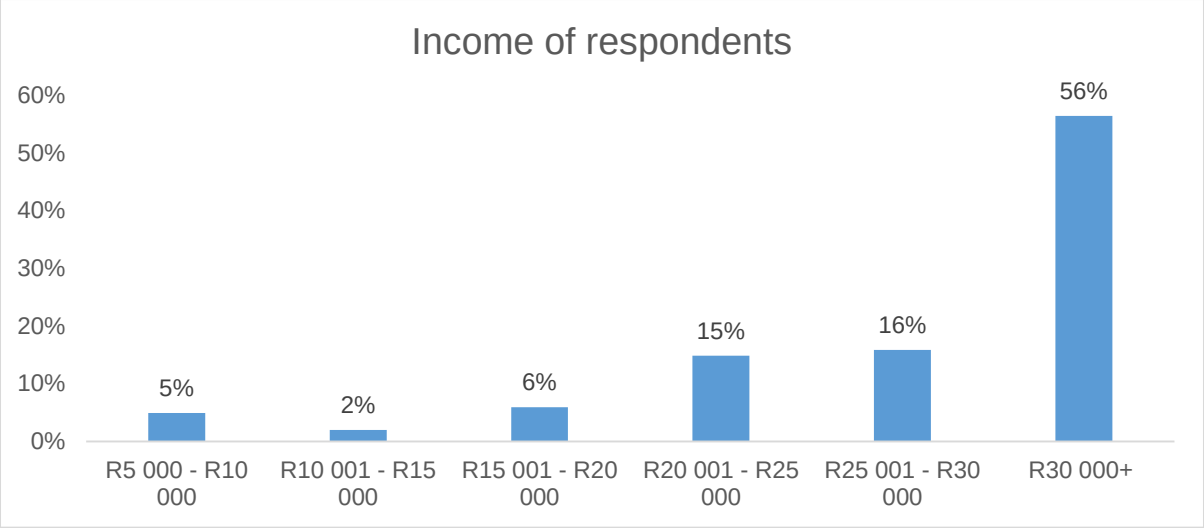

Figure 18: Income of respondents

In terms of the psychographic profile of the target market, the graph above highlights the data collected which was filtered according to age, education and years worked. Based on this the ideal target market segments were derived. This graph illustrates that 87% of the respondents were between the ages of 18-35, had a bachelors qualification or higher, had been working for at least one year, and were earning at least R20 000 per month. This target market is inclusive of both male and females.

The target market indicated above is an ideal platform from which to initially launch My Financial Coach, and is believed to present an opportunity to provide for feedback, growth and ultimately profitability.

7.2 SWOT

According to Sabbaghi and Vaidyanathan (2004), a SWOT analysis is an effective tool for analysing a company's strengths, weaknesses, opportunities and threats, which will assist in effective planning and launching of the proposed business. The SWOT analysis below is based on Sabbaghi and Vaidyanathan's (2004) guide to conducting an effective analysis.

Table 6: My Financial Coach Projected SWOT analysis

Strengths	**Weaknesses**
• Will utilise newest technology. • Smartphone enabled. • Low cost ETF's used • Objectivity – vender agnostic. • Appeals to the mass market over and above millennials. • Innovative and disruptive in a traditional industry. • Investment variety and fund choices.	• Not the first robo-adviser in South Africa. • Lack of human relationships between adviser and customer. • Only able to handle investments and no risk insurance at initial stages. • May alienate people with low technological adoption and know-how. • Ability to understand highly complex financial situations is low which may push high net worth individuals away.
Opportunities	**Threats**

• Ability to scale geographically.
• Broaden offering towards older age bands as well as income categories.
• Diversification in terms of product and service offering:
  ○ Risk insurance.
  ○ Tax advice.
  ○ Estate planning.
• Advancements in technology allowing for even more specific advice through machine learning and algorithms.
• Penetration into markets with low trust in financial services and advice:
	• Further competition from large multinational companies creating their own robo-advisers:
	• Changes in regulatory and legal environment.
	• Reversal in positive sentiment towards technology.
	• Recession within the country, decreases consumers' ability to save and invest.
	• Evolution of technology that threatens the business model.
	• Stock market crash translating into financial losses:

7.3 Marketing mix

As My Financial Coach is a service business, the 7Ps of services marketing in which Participants/People, Physical evidence and Process are added to the original 4Ps (product, place, price and promotion) will be utilised to fully understand and engage in marketing activities (Booms & Bitner, 1981) in order to plan effectively and derive customer value.

Product

My Financial Coach is a robo-adviser that is going to satisfy the need for low cost, objective financial and investment advice. This will be based on technologies that include machine learning, artificial intelligence and algorithms. The product will utilise a questionnaire known as a financial needs analysis in order to determine a potential investor's risk profile, their financial goals, their current financial position and what their shortfall is in attaining their financial goals.

The product will offer retirement investing, discretionary investments and tax-free investment advice, as well as link up to low cost ETFs, which will take into account the client's risk profile and satisfy their needs. This advice will be based purely on each individual's financial goals and be vendor agnostic. My Financial Coach will also be extremely interactive, utilise chat bots for frequently asked questions, and prompt investors to update their financial needs analysis at least twice a year.

As per Nussbaumer et al. (2012), the robo-adviser will provide educational content, investment research, industry analyst reviews and future trends, all of which will shape the customers' experience and ensure retention as well as relevance and benefit. The application will have built-in functionality in terms of all compliance-related matters, and clients will be able to upload all their FICA documentation to allow for a smooth on-boarding process.

In addition, a built-in quantitative programme will collect customer data and generate reports, which the business will utilise to make decisions. This is related to the lean start-up methodology, in which Blank (2013) and Boyd (2017) identified requires multiple sources of customer feedback and data. This quantitative programme will run on the back-end of the system, which will continuously collect data and ensure that

the business receives information that it is able to assess and use to constantly improve the service and product offering.

Place

My Financial Coach will initially launch as an MVP that will only focus on the Johannesburg market, however due to this being an online and smartphone application, the product and service can and will be accessible to consumers across the country. The goal will be to grow My Financial Coach organically to include cities such as Cape Town, Durban and Pretoria once feedback and data are obtained through the lean start-up methodology.

Price

In order to obtain the results of their financial needs analysis, an investor will need to invest funds through the application. There will be no upfront charge for the financial needs analysis and all pricing will be levied according to a percentage of the client's assets or money invested. An annual fee of 0.5% of a client's assets under management will be deducted every month from their portfolio.

There will be a minimum debit order investment amount of R300 per month or a lump sum amount of R1,500. This will ensure sufficient revenues and insulate against people who only want the financial needs analysis information.

Promotion

As My Financial Coach is following the lean start-up methodology, a rapid deployment of promotional activity is vital. For this reason, social media platforms will initially be utilised such as LinkedIn, Facebook, Twitter and Instagram. Due to the initial target market being millennials, this medium will be appropriate as well as familiar. The Google platform in the form of ad words, search engine optimisation and data analysis tools, will also be utilised which will assist in reaching the target market. There will also be public relations events, radio interviews and magazine columns, which will feature the business and its benefits. All promotional activities will be carried out to ensure brand awareness, the company's service offerings and to educate the consumer about the benefits of robo-advice. All promotional and marketing campaigns will be coordinated simultaneously.

Participants/People

The application will initially be run by the founder, with only a sales and marketing employee initially hired. The maintenance and running of the application will be done via a strategic equity partnership created with the application and software developers. This will include technological support, further enhancements to the application, and ongoing maintenance. In terms of compliance and FICA requirements, these will be handled by a third party company whose primary responsibility will be to verify all clients' information in terms of FICA. In addition, it will ensure compliance with the Financial Advisery Intermediary Services Act (FAIS), which is required by the Financial Services Board of South Africa (FSB).

Physical evidence

The application will be designed and developed by a local software development company which has extensive expertise in designing both the back- and front-ends of the application. A service level agreement will be put in place and the aesthetics of the application will be developed in consultation with the target market in order to ensure it meets their requirements. The Logo design captures the colours that will be used throughout the application (See Appendix C).

Process

The application will initially rely heavily on customer involvement in terms of data required for the design of the application as well as which user specific functions are required. This is in line with the lean start-up methodology of building, measuring and learning. Quantitative data will be obtained via the application itself, while qualitative data will be collected utilising techniques such as focus groups and interviews. This data will be collected primarily from early adopters which aligns to Kerr et al. (2014) theory in which early adopters provide critical feedback and create customer involvement in the evolution of the application and business. The MVP will require iterations as and when necessary, particularly as the lean start-up method dictates that there must be rapid deployment of the MVP in order to learn and make change

s based on the feedback gathered (Blank, 2013; Boyd, 2017). This will ensure that the application always satisfies the target market's requirements. Consultation with the

various stakeholders of the business will be ongoing, and data analysis will be conducted frequently in order to pivot and change, or embed what is working.

8. Operational Analysis

8.1 Design and Development

The application will be designed, built and tested thoroughly before launch by a local software development company who will go through the phases set out by Blank, (2013) and Boyd (2017) in order to adhere to the Lean Start-up methodology. Extensive customer input will be obtained whilst building the application as well as after the launch, in order to ensure that the application satisfies the customers' needs and wants. While the application will be available via the internet as well as smartphones, the MVP will not function as a smartphone app but rather a website link. Initially the design stage of the application will focus on user experience and flow, whilst ensuring the colours and logos are congruent throughout. The application's design elements will take priority in order to ensure that situational normality is achieved as according to Salo (2017), thus translating into the trusted digital application.

The building phase will primarily be focused on system functionality as well as software and algorithm development. This stage of the process will be dedicated to ensuring that the software is of a high standard and that the back-end system connects well with the front-end, ensuring a smooth process for the end user. As the founder is a financial adviser, his input will be used extensively in the design elements of the application.

The measuring phase will incorporate multiple user acceptance testing methods. These testers will include current financial advisers, potential customers as well as various outside service providers. Testing will be conducted for all aspects of the application, including the financial needs analysis, investment process and flow, as well as the uploading of FICA and compliance documentation. This will ensure that the customer experience is of the highest quality, that the application functions efficiently, and that the process is seamless throughout.

The MVP will be launched in the learning phase, when data will be rigorously collected from both the quantitative sources built into the application as well as qualitative sources by means of interviews and focus groups.

The pivoting or proceeding phase will only be known once the learning phase has been completed. This phase will include any changes or modifications that need to be made or My Financial Coach will proceed as is with a big roll out.

As per the lean start-up methodology, the business will be built as rapidly as possible whilst ensuring a cost effective solution to a consumer need (Blank, 2013). The application will be designed in such a way that maximises consumers' perceived usefulness and perceived ease of use of the robo-adviser which adheres to the TAM literature reviewed.

8.2 Compliance and legal requirements

In terms of the Financial Advisery and Intermediary Services Act 2002 (Act No. 37 of 2002), certain legal requirements have been set out in terms of furnishing financial advice. My Financial Coach will only offer advice and an investment platform that utilises third party ETFs, thus the business in terms of this Act will not need to be registered as a Financial Services Provider but rather as a key individual providing advice (The Financial Services Board, 2014). The founder has all relevant qualifications to register as a key individual and there is no foreseen risks in obtaining this license.

The Financial Advisery and Intermediary Services Act 2002 also requires all financial services providers and key individuals to have a compliance officer who monitors the business' compliance with the Act. My Financial Coach will thus utilise the services of an external compliance officer who is not an employee of the company but will provide the compliance services on the application (The Financial Services Board, 2014). This will create an easy to manage, efficient work flow and ensure that the business is compliant.

My Financial Coach will employ the highest level of technological security, which will be modified from existing security add-ons and software. My Financial Coach will ensure it is compliant with the Protection of Personal Information Act, No. 4 of 2013 (POPI), and will not share a client's data or information unless that client has given permission to do so (Parliament of the Republic of South Africa, 2013). The compliance and legal requirements give rise to structural assurance and satisfy one

of D. McKnight et al. (2002) conditions for creating trust in digital financial technology.

8.3 Application functions

My Financial Coach will incorporate a fully integrated financial needs analysis questionnaire, which will be comprised of multiple questions in order to ascertain clients' risk profiles as well as their financial goals and objectives.

Following this, clients will be able to proceed to an education/information section that will explain the concept of investing as well as the different ETFs that have been recommended. This will provide relevant information that will incorporate a gamification type experience in order to create customer engagement and positive attitudes towards the application (Hamari, Koivisto, & Sarsa, 2014).

The client will then be able to click through to an investment page once they are happy with the funds chosen and recommendations given. They will be asked to fill out their personal details as well as upload their FICA and personal documents. The entire process will be explained to them through a chat bot functionality as well as an intuitive process flow. The application functionality will be able to provide information regarding the client's investment performance and any relevant industry or world news that may affect their investment. The application will be designed and built with Mcknight and Chervany's (2000) factors of situational normality and structural assurance being top of mind. This will ensure the application achieves the trust of consumers and is poised to be successful.

Due to the fact that the founder has the requisite experience and qualifications, the development of the MVP and applications for the appropriate licenses can and will be done simultaneously.

8.4 Legal structure

My Financial Coach will be launched as a private company or PTY (Ltd) incorporated in South Africa. There will be one director of the business who will also act as the Chief Executive Officer and majority shareholder.

The business will be funded by combination of venture capital and the founder's personal funds. The founder is prepared to offer up to 30% equity in the business in

exchange for capital. The founder will seek out investors who have experience in technological ventures within the financial services industry who are able to share their business connections. The investor/s will sit on the company's board and play a strategic advisery role.

8.5 Directors

Justin Suttner, the founder of the business, will act as CEO and sole director. He has five years' experience as a financial adviser which will prove highly beneficial in terms of providing input into the design of the application, as well as insight into how the industry works. He has a well-established client book which will act as a launch pad from which to start the business and gain feedback.

Justin will oversee the day-to-day operational aspects of the business and will work closely with both investors and the software development house.

8.6 Employees

Due to cost containment being extremely important when launching an MVP, only one employee will be hired initially, with business conditions being monitored regularly to ensure that the staffing level meets the demand. The first employee hired will satisfy the role of business development. This person will have sales and business development experience and interviews will take place once the application is ready to be tested. This role will incorporate sales and marketing to a large extent, as the life blood of the business will be to ensure new clients are constantly signing on and using the service. This employee will work closely with the CEO; their responsibilities will include social media marketing campaigns, public relations, public presentations and customer feedback initiatives.

9. Financial Analysis

My Financial Coach (PTY) LTD
Statement of Comprehenisve Income

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	**R250,000.00**	**R844,000.00**	**R1,702,080.00**	**R2,871,676.80**	**R3,736,305.79**
Operating Expenses	**R575,000.00**	**R1,171,300.00**	**R1,893,266.00**	**R2,638,100.44**	**R2,291,395.68**
Salaries	R240,000.00	R763,200.00	R1,348,320.00	R2,000,906.88	R2,120,961.29
Marketing	R250,000.00	R318,000.00	R449,440.00	R535,957.20	R63,123.85
Rent	R5,000.00	R5,300.00	R5,618.00	R5,955.08	R6,312.38
It Costs	R50,000.00	R53,000.00	R56,180.00	R59,550.80	R63,123.85
Licensing and compliance	R10,000.00	R10,600.00	R11,236.00	R11,910.16	R12,624.77
Other	R20,000.00	R21,200.00	R22,472.00	R23,820.32	R25,249.54
Earnings before interest, tax, decpreciation and amortisation	**-R325,000.00**	**-R327,300.00**	**-R191,186.00**	**R233,576.36**	**R1,444,910.11**
Depreciaition/Amotisation	R145,000.00	R145,000.00	R145,000.00	R145,000.00	R145,000.00
Earnings before interest and tax	**-R470,000.00**	**-R472,300.00**	**-R336,186.00**	**R88,576.36**	**R1,299,910.11**
Interest	R0.00	R0.00	R0.00	R0.00	R0.00
Profit before tax	**-R470,000.00**	**-R472,300.00**	**-R336,186.00**	**R88,576.36**	**R1,299,910.11**
Tax @ 28%	R0.00	R0.00	-R94,132.08	R24,801.38	R363,974.83
Profit after tax	-R470,000.00	-R472,300.00	-R242,053.92	R63,774.98	R935,935.28

Figure 19: Projected five year Statement of comprehensive income

9.1 Sales forecast

Sales revenues for year one are forecast to be R250,000 and will climb to R3,736 305.76 in year five. This is based on the application obtaining 5,000 customers in year one, each of whom will contribute R20,000 made up of lump sums and recurring investments each month. My Financial Coach is estimated to attract 6,000 new customers in year two; 8,000 in year three; 9,000 in year four; and level off in year five with only 1,000 new customers added. The assumption for client acquisition has been derived from studying EasyEquities, a competitor that operates a low cost investment platform. EasyEquities does not provide any advice tool but only ETF's. At the end of 2018 EasyEquities had 68739 clients with assets under management, this took the company four years to accumulate (The Purple Group, 2018) . Thus the customers acquired by My Financial Coach will be fairly lower than this which is a conservative number as the offering and target market are fairly similar. Revenue will be derived from charging a 0.5% fee of the total assets under management. The company expect that the assets invested will grow by an average of 8% per year due to market conditions. This, combined with new customer funds, is how the revenue figures have been derived.

9.2 General comments and assumptions on income statement

IT costs are factored in for ongoing maintenance of the system and any bugs that need to be fixed. These figures have been agreed upon for years one, two and three, and include inflationary increases. Licensing and compliance fees will be paid to the compliance partner, who will ensure that all licenses are up-to-date and all compliance requirements have been met. Other costs refer to any miscellaneous expenses incurred during the year that cannot be budgeted for specifically upfront. Depreciation and amortisation are derived from the created software and application, as well as the physical information technology infrastructure being used.

9.3 Profitability

During the first four years of operation, it is estimated that due to the nature of competition within the financial services industry in South Africa, it will cost R50 to acquire each new customer through our marketing efforts. This is based upon the marketing services company utilised (See Appendix D) as well as data obtained from EasyEquities annual financial report. This means that during the first four years marketing spend will be very high, but in year five, as the company's growth begins to slow, the marketing spend will greatly reduce, which will in turn lead to much higher profits after tax. The business will break even and turn a profit in year four of operations, with a R63,774.98 profit after tax. Year five sees the business increase its profit after tax to R935,935.28. It is also important to note that the company estimate assets under management to reach R705,438,720.00 in year four and R789,083,396.80 in year five. This estimation is relatively conservative with an average asset under management per customer to be R20 000. This is in line with EasyEquities which after four years of operation has amassed 3.466 Billion rand of assets under management which equates to an average of R50,422.00 assets per person (The Purple Group, 2018) .

My Financial Coach (PTY) LTD
Statement of Financial Position

Assets					
Non Current Assets	**R955,000.00**	**R810,000.00**	**R665,000.00**	**R520,000.00**	**R375,000.00**
PPE	R80,000.00	R60,000.00	R40,000.00	R20,000.00	R0.00
Intangibles	R875,000.00	R750,000.00	R625,000.00	R500,000.00	R375,000.00
Current Assets	**R375,000.00**	**R47,700.00**	**-R49,353.92**	**R159,421.06**	**R1,240,356.34**
Cash	R375,000.00	R47,700.00	-R49,353.92	R159,421.06	R1,240,356.34
Total Assets	**R1,330,000.00**	**R857,700.00**	**R615,646.08**	**R679,421.06**	**R1,615,356.34**
Equity and Liabilities					
Equity					
Shareholder Capital	R1,800,000.00	R1,800,000.00	R1,800,000.00	R1,800,000.00	R1,800,000.00
Retained Earnings	-R470,000.00	-R942,300.00	-R1,184,353.92	-R1,120,578.94	-R184,643.66
Total Equity	**R1,330,000.00**	**R857,700.00**	**R615,646.08**	**R679,421.06**	**R1,615,356.34**
Liabilities					
Debt	R0.00	R0.00	R0.00	R0.00	R0.00
Shareholder Loan	R0.00	R0.00	R0.00	R0.00	R0.00
Totlal Liabilities	R0.00	R0.00	R0.00	R0.00	R0.00
Total Equity and Liabilities	**R1,330,000.00**	**R857,700.00**	**R615,646.08**	**R679,421.06**	**R1,615,356.34**

Figure 20: Projected statement of financial position

9.4 Statement of financial position

My Financial Coach will carry no debt and the business will be funded solely from the purchase of equity and the founder's contribution. Share capital will be R1,800,000.00, which reflects the initial investment from various investors. Intangibles include software that will be developed specifically for the company.

My Financial Coach (PTY) LTD
Free Cashflow Valuation

	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Investment	-R1,000,000.00					
EBITDA	R0.00	-R325,000.00	-R327,300.00	-R191,186.00	R233,576.36	R1,444,910.11
TAX		R0.00	R0.00	R0.00	-R24,801.38	-R363,974.83
Total Cash Flow	-R1,000,000.00	-R325,000.00	-R327,300.00	-R191,186.00	R208,774.98	R1,080,935.28
Future Value	R17,877,006.54					
NPV	**R6,283,824.21**	**R1,843,000.00**				
Investor Shareholding	29%					

Figure 21: Projected five year free cash flow valuation

9.5 Free Cash Flow Valuation

The net present value of the business is R6,283,824.21, which was derived using a terminal growth rate of 8% and a cost of equity of 14%. This brings the future value of the business to R17,877,005.54, which discounted to present value is R6,283,824.21. In order to start the business R1,843,000.00 is needed as an upfront investment . This includes R1,000,000.00 for the design, development, building and testing of the MVP as stipulated by the software development company. Working capital for running the operational aspects of the business is required for three years which amounts to R843,000.00 until the business turns a profit. The founder will raise equity for the initial development and ongoing working capital by selling a 29% share for R1,843,000.

9.6 Growth Plan

The growth plan for the business, as set out in the projected financial statements, is to break even after year four and grow significantly from there. The advantage of this type of business is that there is the ability to scale immensely without incurring major costs. This is due to the fact that revenue is derived by assets under management, and as such does not require more than seven employees to run it effectively from year five onwards. The idea will be to expand out of Johannesburg to target high density metropolitan areas and cities such as Durban, Cape Town and Pretoria. As the application is web-based, it allows for scalability and a wide reach without additional premises being needed. After year five the company will be able to include other financial services such as short-term insurance and risk and life insurance products and advice, which have the ability to generate significant long-term revenues and diversify the product offering, thus ensuring customers are also less likely to move to competitors.

9.7 Exit Strategy

In terms of an exit strategy, the founder will consider two options, namely selling the business to an already existing company that has a robo-adviser, or selling the business to an asset management company. The idea is to create this business with the goal being that the founder and investors will cash out in the long term. The business will be set up to provide the investors with a return greater than the stock

market, and provide a venture capital solution for investors' personal portfolios. The founder intends to dispose of the majority of his shares upon the conclusion of selling the business in the future, as the purpose of this business will be to assist customers with financial advice whilst creating wealth for the founder.

10. Time line

The Gantt chart below shows the activities that will be undertaken and the time frame that will be followed in order to create, build and launch My Financial Coach.

Figure 22: Timeline of business activities for launch

The timeline above is based on estimated time frames that certain key activities will follow in order to launch the application successfully.

Much work has already been done to set the business up, as potential investors have already been identified and meetings arranged with their respective offices. The software development company has also been identified, and an agreement in principle has been reached.

User acceptance testing (beta testing) will be done by selecting a small sample of the target market via focus groups and surveys, and asking them to test the application.

This will be done to ensure the relevance of the application before the MVP is launched and to check that it is aligned to the lean start-up methodology.

The overall process from start to finish will take approximately ten months, with the robo-adviser application and MVP scheduled to go live on the 3rd of February 2020 This date was set after numerous consultations with the various stakeholders involved and subscribes to trying to get the MVP launched as quickly as possible in order to ensure that feedback is received immediately and iterations and changes completed as soon as possible.

10.1 Critical Milestones

Table 7: Critical Milestones

Milestone	Date
All service level agreements signed off with various vendors	7 June 2019
Finalise contracts with equity partners	15 June 2019
Application and robo-adviser design sign-off	22 July 2019
Testing phase commencement	7 September 2019
Publicity roadshow and marketing campaigns kick off	6 January 2020
MVP, website and robo-adviser launch	3 February 2020

11. Critical Risks

In launching the proposed company and application, there are inherent risks for both investors and the founder. These risks may pose a threat to the launch, viability and profitability of the business.

Table 8: Key risks for My Financial Coach

Risks	Description	Likelihood
Licencing	Granting of various licenses held up or withheld.	Low
Compliance	Non-compliance with various Acts pertaining to financial advice as deemed by the compliance officer.	Low
Application development	Major bugs detected in software leading to a delayed launch.	Medium
Customer feedback	Insufficient feedback gained due to difficulty in reaching target market.	Low
Cost containment	Underestimated costs pertaining to marketing, IT and maintenance.	Low
Equity partnerships	Difficulty in finalising equity partnerships with venture capitalist.	Low
Low customer uptake	Lower customer uptake and usage of robo-adviser than initially projected.	Medium
Competitive behaviour	Aggressive competitive behaviour upon launch of application.	High

12. Conclusion

The data collected demonstrates that there is desirability amongst millennials in Johannesburg, South Africa, to use an application of this nature.

It is thus evident that My Financial Coach is a viable business that has the ability to scale, grow and create wealth for both its founder and investors. The ability to educate and assist customers to create personal wealth and financial freedom by providing superior quality, objective financial and investment advice, with minimal fees, will be key in offering them an extraordinary experience.

The financial analysis reaffirms the company's ability to make money and become profitable, whilst adhering to the core aspects of the lean start-up methodology.

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