Factors influencing the intentions of financial planners to adopt Robo-advisors

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Keywords
Automated financial advice; digital wealth management; financial planning; financial technology; Robo-advice; technology acceptance model.

Abstract

Orientation: Financial Technology (FinTech) is causing a transformation in the traditional methods of financial services. In the financial planning industry, Robo-advisors are a novel FinTech solution which can enhance the current services of financial planners.

Research purpose: This study provides an overview of the functions and processes of Robo-advisors and investigates the intentions of financial planners to adopt Robo-advisors into their practices.

Motivation for the study: Research on the intentions of financial planners to adopt Robo-advisors can yield results which may assist in easing the incorporation of Robo-advisors into financial planning practices

Research approach/design and method: Interpretivist paradigm and phenomenological qualitative approach adopted. Criterion and snowball sampling employed to conduct semi-structured interviews with 13 financial planners. Data derived from interviews was analysed by means of a directed content analysis.

Main findings: The intentions of financial planners were influenced by the following factors: their intentions to use, training and education, experience, system quality and compatibility with tasks

Practical/managerial implications and conclusions: institutions and professional bodies within the financial planning sector can use the Robo-advisory Adoption Model (RAAM) to facilitate the process of adoption into practices. Furthermore, the RAAM developed in this study can be used to measure the intentions of financial planners to adopt Robo-advisors and other technologies. This model can be tested and applied in future research projects.

1 Introduction

Financial technology (FinTech) is anticipated to be one of the most transformative trends of the century, bringing with it a mass of opportunities and challenges (Arslanian and Fischer, 2019). According to the Financial Planning Services Board (2016), FinTech has the potential to impact the activities financial institutions globally and can make traditional financial systems more easily accessible, efficient and user friendly. The move towards delivering products and services online can improve the accessibility to financial services by a large portion of the population. These individuals may have previously had limited access to professional financial services due to financial or geographical restraints (Wentzel, Diatha and Yadavalli, 2013). The FinTech component in focus in this article is Robo-advisors. Robo-advisors are online-based financial advisory platforms making use of hi-tech algorithms, based on which financial recommendations are made (Park, Ryu and Shin, 2016). Services offered by Robo-advisors are referred to as Robo-advice. Robo-advice currently ranges from basic portfolio construction and analysis to the complex analysis of financial products. These capabilities are expected to grow with time. (Kneller, 2017).

The use of Robo-advisors can be beneficial for both individual investors who opt to use them independently and for financial planners in their professional capacity (Fisch and Turner, 2017). According to Iannarone (2018) financial planners who elect to incorporate Robo-advisors into their offerings can create well-diversified portfolios and consider clients' time horizons more effectively. Individual investors who choose to use Robo-advisors will not be constrained by the many limitations posed by the office environment (Iannarone, 2018). The Financial Planning Institute of Southern Africa

(2017) states that financial planners can create a better experience for themselves and clients by incorporating Robo-advisors into their service offerings.

There is a gap in knowledge regarding financial planners' intentions to incorporate Robo-advisors into their service offerings. Understanding the factors that hinder the intentions of financial planners to adopt Robo-advisors into their service offerings can contribute towards identifying ways to encourage adoption of Robo-advisors into the financial planning process. This article reports on an investigation of the elements which effect and influence the intentions of financial planners to adopt Robo-advisors into their service offerings. The articles' main objectives are to identify potential factors that inhibit the intention to adopt Robo-advisors and to identify the factors which will facilitate adoption of Robo-advisors into the financial planning process, within South Africa. The Robo-advisor adoption model (RAAM) developed during this research could guide for more effective adoption in financial planning.

2 Literature review

Prior to investigating the intentions of financial planners to adopt Robo-advisors into their service offerings, it is important to have an understanding of the functions, processes and the benefits of financial planners using Robo-advisors. In the literature discussion that follows, the main functions of Robo-advisors are outlined and discussed in order to create an understanding of what Robo-advisors actually do. This is followed by a discussion of the three-step process Robo-advisors adopt to execute their functions. A brief discussion then follows on how these functions and processes can prove to be beneficial to financial planners should they choose to adopt them. In closing, the Technology Acceptance Model (TAM) is discussed as this model is often used to measure individuals' intentions to use technology.

2.1 Main functions of Robo-advisors

The main functions of Robo-advisors include but are not limited to the creation of personalised investment portfolios, rebalancing of portfolios, and the provision of tax-loss harvesting (Kaya, 2017). These functions are discussed.

When creating portfolios, Robo-advisors commonly elect to invest in Exchange Traded Funds (ETFs) (Kaya, 2017). ETFs are investment vehicles which aim to track the performance of a specific index (Lettau and Madhavan, 2018). Santhosh (2018) states that ETFs aim to replicate the performance of a specific benchmark index. The reason why ETFs are a preferred investment strategy is because they are perceived to have lower expense ratios and offer a higher degree of liquidity and diversity. These characteristics are directly linked to the passive investment strategy adopted by ETFs (Santhosh, 2018). Kaya (2017) emphasises that ETFs are possibly the most suitable financial security choice for automated trading strategies. He supports this statement by bringing attention to the fact that approximately 55 per cent of Robo-advisors in Europe adopt ETFs as their main investment instrument.

Portfolio rebalancing is a strategy which realigns the asset distribution within a portfolio by purchasing and selling assets (Louw, 2018). When attempting to rebalance a client's portfolio, Robo-advisors aim to minimise the risks associated with the current portfolios' asset allocation. Portfolio rebalancing is a necessary task because, over time, the performance of asset classes changes and can cause a shift in the balancing of a portfolio. Furthermore, any changes in the clients' particulars may also herald various changes to be made within the portfolio structure (Kaya, 2017).

Tax-loss harvesting is a strategy which aims at reducing the amount of capital gains tax payable by an individual by offsetting their gains against their losses. It is worth noting that the aim of tax-loss harvesting is not to turn a loss into a gain but rather to minimise an individual's tax liability (Cahn, 2017). According to Hammer (2013), this strategy is achieved by selling securities which have produced an unrealised loss. This security must then be replaced with another which is similar in nature to ensure that balance within the portfolio structure is retained. This strategy offers clients the benefit of reducing their tax liabilities and provides clients with an opportunity to rebalance and diversify their portfolios (Hammer, 2013).

2.2 The Robo-advisory process

As depicted in Figure 1, the Robo-advisory procedure comprises of a three-stage process: client identification and screening, implementation of investment strategies and the ongoing monitoring and

evaluation of investment strategies. Each stage of the Robo-advisory process is discussed in the sections that follow.

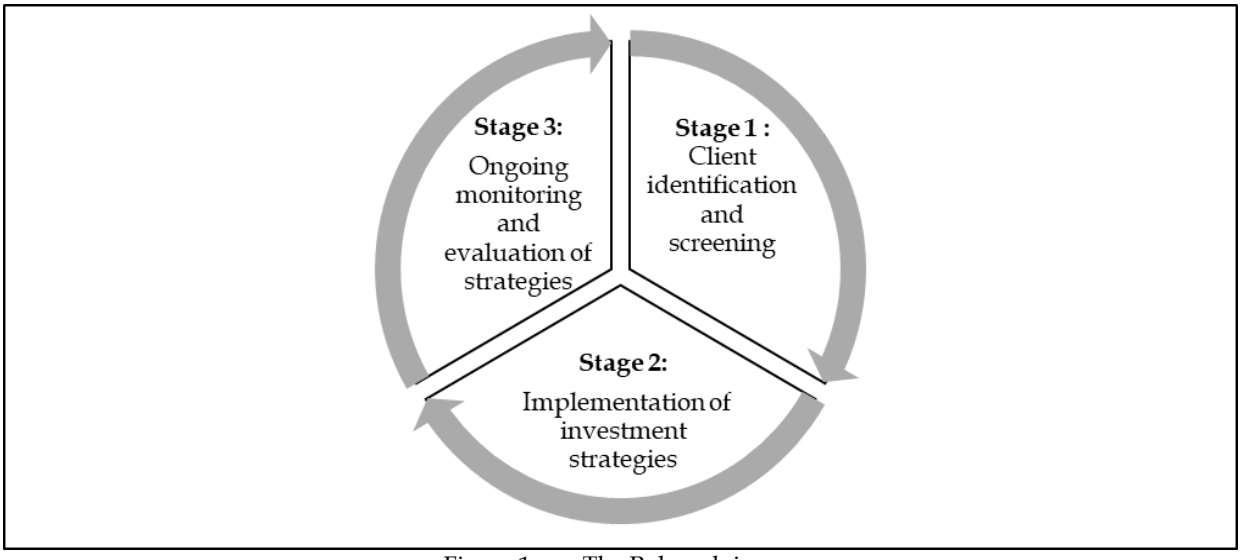

Figure 1: The Robo-advisory process
Source: Adapted from Kaya (2017)

2.2.1 Client identification and screening

Although all Robo-advisors are not the same, they all collect information in a similar manner (Charles Schwab, 2019). Online questionnaires are tools for collecting vital client information for providing Robo-advisors with the information required to make recommendations. These questionnaires are usually set out in a multiple-choice format and are specially designed to assist Robo-advisors in collecting information required in order to generated recommendations (Accenture, 2015). The information collected includes clients' financial needs, goals, risk appetite as well as their investment timeline (Kaya, 2017). From the clients' perspectives this stage forms part of the process which they undertake to set up an account with the Robo-advisor. After users have uploaded the required documentation and confirmed their banking details, they can begin investing almost instantaneously. If necessary, users can adjust the details of their investments (deposits and contributions), or easily elect to cash out certain investments if the occasion should arise (Kaya, 2017).

2.2.2 Implementation of investment strategies

Based on the information collected, Robo-advisors will select specific assets which best align with the client's investment preferences. In this step, the Robo-advisor will develop a 'plan' by deciding on asset allocation and selecting ideal securities, ultimately providing the user with a proposed investment solution (Accenture, 2015). Charles Schwab (2019) states that the client will be expected to fund the account and indicate their satisfaction with the proposals made. Thereafter, relevant accounts will be opened, and assets transferred if necessary (Accenture, 2015).

2.2.3 Ongoing monitoring and evaluation of strategies

Through adoption of various statistical tools, Robo-advisors will monitor the performance of clients' investments on an ongoing basis. When circumstances such as fluctuation in the economy's performance cause turbulence in the asset allocation of portfolios, or when a client decides to change or update certain preferences or personal details, Robo-advisors will automatically adjust or rebalance the portfolio accordingly (Kaya, 2017). As indicated in Figure 1, this stage will require the Robo-advisor to return to stage one of the Robo-advisory process which will lead to the re-evaluation of client information, in order to identify changes which may occur in their financial situations.

2.3 The benefits of financial planners adopting Robo-advisors

Robo-advisors are both consumer-facing and institutional-facing, meaning that Robo-advisors' service two primary users: financial planners and independent investors (Fisch and Turner 2017). Financial planners may adopt Robo-advisors to assist them in efficiently serving their clients. Baker and Dellaert (2018) propose that in this case, Robo-advisors will be expected to work behind the scenes. This will leave humans largely in control of client relationships and the designing, modelling, programming and marketing of wealth management can be done by tools such as the Robo-advisor (Baker and Dellaert, 2018). By doing this, financial planners can effectively eliminate the key downfall of Robo-advisors which is their inability to develop relationships with clients (Vien, 2015).

Robo-advisors will lessen the workload of human financial planners by providing them with additional time to focus on adding value to their services. Therefore, financial planners and institutions will be able to place their focus on building sustainable client relationships, team building in the workplace, as well as on making an extra effort to establish bonds based on trust (Iannarone, 2018). Ultimately, by financial planners adopting technological tools like Robo-advisors they will be enabled to spend more of their time focus on what they are good at (and where Robo-advisors fall short) – establishing and maintaining relationships with their clients. Whereas the Robo-advisor can assist in lowering costs in areas of data collection and organising, analysing portfolios and delivering advice (Financial Planning Services Board, 2016).

2.4 The Technology Acceptance Model (TAM)

According to Stewart and Jürjens (2017), the intentions of individuals to adopt and accept FinTech systems like the Robo-advisor can be effectively evaluated by the Technology Acceptance Model (TAM). TAM is a theoretical model that is broadly used to assist in understanding adoption of new technology across various industries (Gangwar, Date and Ramaswamy, 2015). Davis (1985) states that the aim of TAM is to aid the understanding of how individuals choose to accept adoption of technology into their everyday lives. Additionally, TAM can also be used to physically test the acceptance of technology by means of various demonstrations and interactions with prototypes. Furthermore, Durodolu (2016) emphasises that in order to understand the acceptance of technology by humans, the Perceived Usefulness and Perceived Ease of Use of the technology must be understood. The components of the TAM model as outlined by Durodolu (2016) are depicted in Figure 2.

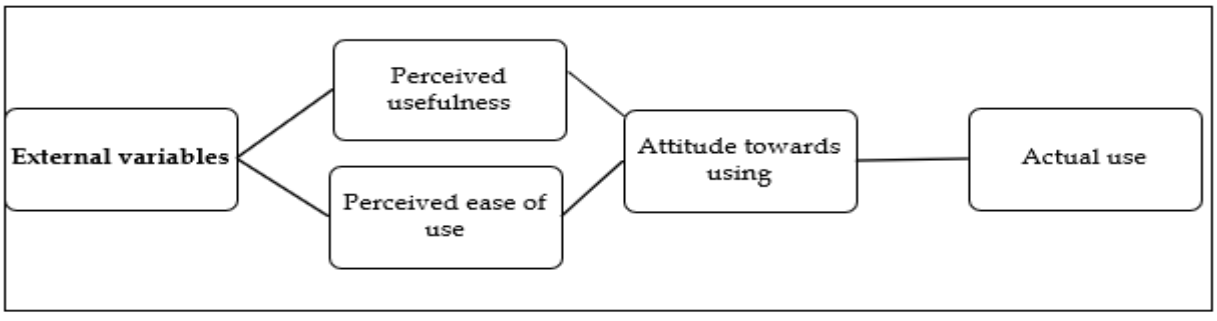

Figure 2: The Technology Acceptance Model (TAM)
Source: Durodolu (2016)

Perceived Usefulness and Perceived Ease of Use are the two core components of the TAM (Ducey, 2013). Perceived Usefulness refers to the extent to which an item of technology has the ability to improve a task or the performance of something. Perceived Ease of Use refers to the extent to which the technology adopted is easy to use and causes the user minimal confusion or difficulty (Davis, 1989). As Robo-advisors are not widely used in South Africa, the Perceived Ease of Use cannot be considered for the nature of this study.

As indicated in the figure above, the Perceived Usefulness and Perceived Ease of Use of a technology is influenced by certain external variables. These external variables which affect Perceived Usefulness are identified by Durodolu (2016) as intention to use, training, experience and perceived system quality. Legris, Ingham and Collerette (2003) contribute the additional external variable of compatibility of the technology with the nature of the task. As per Figure 2, these external variables contribute to the users' attitudes towards the technology which impacts their final intention to use the technology (Durodolu, 2016).

The intention to use a variable refers to an individual's initial willingness to use the said technology to perform the tasks it was created to fulfil (Durodulo, 2016). According to Igbaria, Zinatelli, Cragg and Cavaye (1997), the training and education variable refers to the amount of training and education provided to the users of the technology. This training and education can be provided by sources that are internal or external to the organisation. Furthermore, Venkatesh and Morris (2000) state that the experience variable refers the user's own experience with the technology. This experience can help them decide whether the technology will be beneficial for them to use, and by gaining first-hand experience, their perceptions are less likely to be influenced by their peers. The system quality variable refers to the technology's capabilities to provide sufficient solutions (Barranis, 2011). Lastly, the technology compatibility variable refers to the degree that the technology's capabilities meet the requirements of the task it is expected to perform (Dishaw and Strong, 1999).

3 Research design

3.1 Research approach

The interpretivist paradigm requires that researchers understand a research topic from the perspective of individuals involved in the area being researched. Emphasis is placed on understanding peoples' motives, views or actions instead of understanding objects (Saunders, Lewis and Thornhill, 2016). In the case of the study reported in this article, an understanding was required of the perspectives and intentions of financial planners to adopt Robo-advisors into their practices. Furthermore, the qualitative phenomenological approach was identified to capture the perceptions of financial planners and to discover various themes which can assist in developing reasons for their intentions to adopt Robo-advisors (Cooper and Schindler, 2013).

3.2 Research strategy

The data was derived by means of semi structured, in-depth interviews with 13 financial planners who are actively involved in the financial planning industry. Criterion-based and snowball sampling was used to identify qualifying participants. These participants all work in different practices and the amount of experience they possess differed, thus providing variety of candidates in participation.

Ethical clearance was obtained from the respective University (H20-BES-BMA-001). Potential participants were identified and contacted telephonically or via email to set up an interview at a suitable location and time. Participants signed an informed consent form and permission was granted for audio to be recorded for ease of the data collection and analysis process.

4 Research method

4.1 Research setting and establishing researcher roles

This study was undertaken within Port Elizabeth in the Eastern Cape province in South Africa. In line with the importance of being aware of the role of the researcher (Sanjari, Bahramnezhad, Fomani, Shoghi, and Ceraghi 2014), the researcher in this study was a stranger to all participants prior to data collection. This ensured that participants answers were impartial in their responses. The researcher however possesses a good understanding of financial planning and the financial planning environment due to tertiary education in this discipline at undergraduate and postgraduate level. The co-author was actively involved in the planning and execution of the financial planning programmes at the university and is affiliated with various professional bodies relative in the industry.

4.2 Research participants and sampling methods

The sampling methods adopted in this research were criterion based and snowball sampling.

For criterion-based sampling, participants of the study were required to meet the following criteria:

Participant must actively offer investment advice.

Participant must have offered advice for a minimum of three years.

Participant must have a formal education (degree/diploma), enabling him/her to provide financial advice.

The above criteria were applied as qualifying questions and set forth via email, prior to the participant engaging in the interview process. Snowball sampling assisted the researcher in reaching a larger, data-rich sample. This was achieved by the researcher interacting with financial planners and requesting referrals to other possible participants who meet the criteria to participate in the study. It is difficult to provide a numeric value to the sample size for a qualitative study (Struwig and Stead, 2013). Therefore, qualitative interviews should be conducted until the point of saturation (Eriksson and Kolvainen, 2016). The concept of data saturation thus requires that interviews be conducted until the point where minimal new information surfaces (Marshall, Cardon, Poddar and Fontenot, 2013). For this study, data saturation was met at 13 interviews. This number is in accordance with the guidelines outlined by Guest, Bunce and Johnson (2006) which state that data saturation can be met at approximately 12 interviews.

4.3 Data collection methods

Data was collected by means of face-to-face, semi structured interviews. In accordance with the guiding principles of Eriksson and Kovalainen (2008), questions asked in semi-structured interviews were not all the same but relate to the same themes and topics. In the case of this study the broad topics were intentions to use Robo-advisors, training and education provided on Robo-advisors, experience with Robo-advisors, the perceived system quality of Robo-advisors and compatibility of Robo-advisors with tasks. These interviews took place at the office of the participating financial planners, thus facilitating a comfortable yet professional environment. This method was deemed most appropriate for the nature of this research as it permitted the relevant themes and topics to be discussed in a personal setting, which allowed for open and honest discussions to take place between the researcher and participants.

4.4 Strategies employed to ensure data quality and integrity

Trustworthiness was ensured by maintaining logs on daily activities, which included information of the interviews conducted, data analysis, literature findings and progress on thesis writing, as well as personal notes. Any possible biases which the researcher encountered were put forward in discussion with the co-author and then addressed.

4.5 Data recording

After audio recording, all the interviews' recordings were transcribed by a professional transcriber. Jensen and Laurie (2016) concur with this approach by stating that transcribing interview data can be a time-consuming process. As per Hsieh and Shannon (2005) the transcriptions were then further analysed by the researcher according to codes developed for a directed content analysis.

4.6 Data analysis

Content analysis was identified as the most suitable data analysis method in line with Quinlan, Babin, Carr, Griffin and Zikmund (2015) who note the use of content analysis to seek underlying meanings and is suitable when analysing large amounts of open-ended data, are derived from interviews (Collis and Hussey, 2003). The deductive and inductive coding strategies were adopted in the coding process of interview data. Initially the directed content analysis approach was adopted, and coding categories were based on theory and developed prior to the analysis of data derived from literature (Ravitch and Carl, 2016). Codes were primarily developed deductively but where new findings emerged which were not identified in literature, additional inductive codes were developed (Catanzaro, 1988).

5 Results and discussion

The general viewpoints of financial planners around the topic of Robo-advisors are considered before reporting on the intentions of financial planners to adopt Robo-advisors into their practices. These viewpoints are discussed because they inductively emerged as a recurring topic of discussion in interviews. The two major viewpoints related to Robo-advisors causing minimal disruption to the industry and Robo-advisors disrupting the traditional methods of financial planning

The opinion that Robo-advisors will not cause disruption within the industry was reflected by Participant J, '*And there is a place for it. You know, but I do not think it will cause disruption. Our industry is constantly changing, and we need to change as well. So, I don't think it will cause disruption*'.

Furthermore, Robo-advisors do have a space in the market, but they will not be able to do what financial planners do, as stated by Participant K, '*I don't say there is not a place for it, but I don't think Robo-advice will take over what a financial advisor is currently doing*'. Participant M highlights that there are other forces in the industry which are perceived to be more disruptive than Robo-advisors '*Disruptions for our methods of financial planning would definitely be new laws and regulations – that would definitely play a massive role*'

There clearly are conflicting perceptions on the view of Robo-advisors' potential disruptions on the industry, as expressed by Participant A, '*most people are already going this route; it has caused a disruption in the industry already*'. Participants feel that Robo-advisors would be able to take away some of their clients, as Robo-advisors will enable clients to do their own financial planning, thus eliminating the need for a professional financial planner. Participant H mentioned: '*because of the fact that they can do it themselves, they don't need us anymore*'. In addition to taking away clients, some participants are of the opinion that Robo-advisors can replace the financial planning profession altogether at some point in the future, as expressed by Participant G, '*I actually see us being done away with completely to a large extent especially to the newer generation as everything is available online nowadays*. It is also possible that a transformation will occur in the traditional methods in which the industry has been conducted; it could become possible that humans will be placed in charge of overseeing the Robo-advisory systems, as explained by Participant H, '*I said earlier I think that's the way the industry is going to go. Sooner or later, you are going to get virtual financial planners, AI's that run the client meetings, and you will have a human component making sure the AI does what it is supposed to do'*.

TAM was employed to understand financial planners' position on incorporating Robo-advisors into their offerings. As Robo-advice is in its infancy stage in South Africa, TAM was not able to be fully adopted due to the inability to address the perceived ease of use of technology. In support of this, all participants stated that they have never used it, thus making it impossible to evaluate adoption from the ease-of-use perspective. The remaining components of the TAM were deemed appropriate to assess the intentions of financial planners to adopt Robo-advisors into their practices.

The perceived usefulness variable was therefore used to identify whether financial planners would intend to integrate Robo-advisors into their offerings. Figure 2 visually depicts the Robo-advisor adoption model developed in this study based on the TAM and the findings from this study. This Robo-advisor adoption model outlines the underlying elements influencing financial planners' intentions to adopt Robo-advisors and is presented in this section.

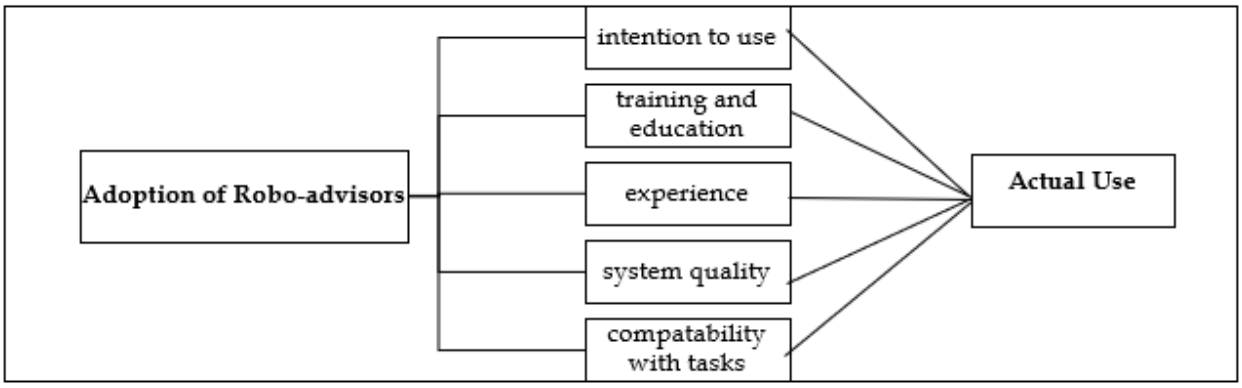

Figure 2: Robo-advisor Adoption Model (RAAM)

5.1 Intention to Use

Financial planners who participated in this study have acknowledged that there is a space for Robo-advisors in the industry. Participants have further indicated that they will consider incorporating

technology into their service offerings eventually, as expressed by Participant H, '*So it is really interesting thought, but when it comes to a financial advice point of view there is some kind of programme, we are going to make use of to be part of our service offering, but at this stage, it is not yet there*'.

However, although participants agree that Robo-advisors can be incorporated into their service offerings, they are currently uncertain regarding the role of Robo-advisors in the financial planning process. They believe that their clients prefer the human interaction component of financial planning, as expressed by Participant F, '*We try and see if we can incorporate it in the business, but we haven't found the solution because in our business we are working with people that prefer to work personally with an advisor and don't want to go through a computer-based advice system*'.

The intention to use variable refers to the willingness of the user to adopt the technology to perform the tasks it was created for (Durodolu, 2016). Financial planners expressed that they are willing to try and incorporate Robo-advisors into their service offerings. They noted that Robo-advisors can be used to improve the current service offerings of financial planners, as highlighted by Participant A. As financial planning can be a timeous process, adopting a Robo-advisor into their practices may assist financial planners by saving them time and allowing them to focus on other aspects in which Robo-advisors fall short, as explained by Participant L, '*You need to evolve in technology to smooth your processes, to streamline your processes. So, what do I mean by that - Is that the traditional methods of giving advice, referring to holistic planning, takes a lot of time? So, we are constantly seeking smarter ways of doing thing*s. Furthermore, Participant B elaborates on how Robo-advisors can assist in saving financial planners time by stating, '*A financial planner should maybe have a Robo-advisor as a backup; so if somebody wants to do something and is unable to see the financial planner or wants to do it rather than pay for an hour to see me, or whatever fee goes with the service – we could always then refer them to the Robo-advisor and say … input your information into the system and … then we could help you*'.

Some financial planners have expressed their unwillingness to adopt Robo-advisors into their operations. This unwillingness is based on the belief about the importance of relationships in the industry: '*We played around with technology, but we don't use it because I am a relationships person*'(Participant J). Furthermore, the perceived limitation of Robo-advisors' capabilities discourage financial planners to adopt them, as suggested by Participant D, '*I do not think I would personally incorporate it into my service offering, because with my service offering, I would be seeing clients that are wanting holistic financial planning*'. These beliefs could possibly be linked to a lack of training or education present on the topic of Robo-advisors, as the hybrid Robo-advisory approach aims at combining the technological nature of Robo-advisors with the input and advice of a certified financial professional.

5.2 Training and Education

This variable refers to the amount of training or education that has been provided to the users of the technology by the sources internal or external to the organisation (Igbaria et al., 1997). All participants expressed awareness on the topic of Robo-advice, but the sources of education and training vary.

Participants indicated that they learnt about Robo-advisors through their own personal research efforts: '*I have done some research on it, so when this big buzz word came out, Robo-advice, if we can find a solution in our firm, if there is a space in our firm for it, so I actually did webinars on it but I don't know of anyone who has done it*'(Participant L). Other participants state that they were made aware of the concept through industry presentations that they attended (Participant C), Other sources of training include presentations by head office, as mentioned by Participant A, and Roadshow presentations as stated by Participant H and Participant I.

Table 1 provides additional quotes which highlight the various sources of training and education

Source of training and education	Participant	Quotation extracted verbatim from interview transcripts
Presentations made by employer company	C:	'I heard about it at one of the company presentations, they are playing with the idea of launching something like that [Robo-advice]'.
	D:	'there was a brief explanation of how it [Robo-advice] and that they were eventually going to be implementing it, and what market they were obviously looking to penetrate with Robo-advice. So, there was a very brief training on it, to prepare us for what obviously our clients are going to be – potentially utilising'.
Financial roadshow presentations	H:	'I have heard mostly from the [company name] Fund because I went there for a roadshow and then all the articles saying Robo-advice is going to take away jobs from the existing financial advisors. So that's why I have heard of it'.
	I:	'Roadshow presentations; we are very much aware of the technology and the internet of things and how things are developing at a rate of knots. There was a presentation done by somebody at [company name], about the Robo-advisor'.
Presentations by the Financial Planning Institute (FPI)	F:	I heard about it at Industry presentations from the FPI'
Own research	E:	'I have seen it [Robo-advisors] on the internet you know, certain aspects of it only'.
	J:	''I learnt by self-study, you know, I know what it is. It is a pre-program with limited choices'.
	L:	'I listened to seminars on it as well, and then also I have enrolled with [company name], they were hosting a discussion on Robo-advice and how that can help in your industry or in your firm, to provide a solution on that regard'.
	M:	'I learnt just from articles on the internet'.

Table 1: Sources of training and education

5.3 Experience

This variable refers to users' personal experiences with the technology, which can assist them in deciding whether it will be beneficial for them to adopt the technology (Venkatesh and Morris, 2000). Due to Robo-advisors being in their infancy stage within South Africa, most participants expressed that they have never had physical experience with Robo-advisors. They were however aware that in other countries the use of Robo-advisors is more widespread than in South Africa, as highlighted by Participant A. Only one participant indicated that they do have some experience with Robo-advisors, in that they have a retirement calculator on their website which they view as a sort of Robo-advice: '*I did have a form of Robo-advice on my website, but I found that my clients didn't make use of it. And my website would then notify me when that programme was being used*'. (Participant B), This tool however, does not fit the definition of Robo-advice, whereby this statement further highlights the lack of training and education available to professional on the topic of Robo-advice. Although none of the other participants indicated that they use

Robo-advisors, a few of them expressed that the possibility of their company eventually creating their own Robo-advisory platform is likely, as expressed by Participant H.

5.4 System Quality

The system quality variable refers to the ability of the technology to provide efficient solutions based on the tasks it is meant to perform (Barranis, 2011). Robo-advisors are perceived to have a good system quality from the perspective of accuracy and efficiency. Robo-advisors offer fast results to users with accurate information and are unlikely to be subjected to any biases as humans would, as highlighted by Participant H, '*So I think the financial planning process is much more efficient and faster and could also be more accurate, unbiased, giving the right solution to the shortfall and that's about it*'. Furthermore, Participant M highlights that Robo-advisors exceed human capabilities in the area of mathematics.

The system quality of Robo-advisors is brought down by its lack of ability to fulfil the relationship role offered by human financial planners as expressed by Participant B, '*You can't develop a relationship, it is emotionless, it lacks empathy*'. In addition to the lack of relationship, human financial planners can provide clients with explanations and actual advice regarding investment choices, as well as a larger variety of options, as stated by Participant K, '*I think the fact you can sit down and an advisor can explain and show you options, and also you can get a Robo- advisor that perhaps is for one company, and then it is not to say that that specific company is the best solution for the client; whereas if it is independent advisor and you can offer different solutions with different companies to the client*'.

5.5 Compatibility with Tasks

The compatibility variable refers to the degree that the new technology can perform to fulfil the requirements of the task it is meant to fulfil (Dishaw and Strong, 1999). Participants highlighted that the lack of human interaction is the main component of Robo-advisors which makes them incompatible with the nature of financial advice:

'*We try and see if we can incorporate it in the business, but we haven't found the solution because in our business we are working with people that prefer to work personally with an advisor and don't want to go through a computer-based advice system*' (Participant F)

Financial planning requires that financial planners thoroughly investigate and understand clients and their circumstances. Robo-advisors may fall short in this area as they cannot mimic human behaviour, as expressed by Participant M, '*A Robo-advisor doesn't have the insight of human beings. It only does the numbers, so it does not know… it can calculate the child is turning 18 so you will need a capital amount, you know, at 18. But it might not know that the child does not want to go and study further. So, insight is difficult to get from a Robo-advisor*'. Robo-advisors may be beneficial to financial planners if they adopt them as an assistive tool but will not be able to assist with consulting clients, as stated by Participant M, '*I think a Robo-advisor can help you in paraplanning, but not as in seeing clients and advising client directly*'.

The above discussion of this study's findings highlight that some financial planners intend to use Robo-advisors as they perceive them to be beneficial to them. Others have expressed that they see little to no benefit that could arise from incorporating it into their offerings. With regard to experience, financial planners have had little to no experience with Robo-advisors. This is due to Robo-advisors not yet being widely used in South Africa. Those who think they have had experience with Robo-advice have displayed a misconception regarding what Robo-advisors are, which could be due to the limited training and education provided in this area. The system quality of Robo-advisors appears to be highly dependent on the benefits it is perceived to offer to its users. Since the lack of relationships has been consistently highlighted as a downfall of Robo-advisors, it has a negative impact on the perceived system quality of Robo-advisors. The compatibility of Robo-advisors with tasks they are expected to perform seem to be dependent on the human element. Unfortunately, due to the lack of empathy and relationships, Robo-advisors cannot compete with human financial planners with regard to compatibility with tasks.

6 Discussion and conclusion

6.1 Outline of results

The findings of this study highlight that the intentions of financial planners to adopt Robo-advisors are dependent on their intentions to use, training and education, experience, system quality and

compatibility with tasks. Training and education on Robo-advisors has emerged as an area of concern as the majority of education received on this topic was self-sought from financial planners' own research efforts. Based on literature and findings, elements of the TAM were modified into a Robo-advisor Adoption Model (RAAM) which encompasses factors that directly influence financial planners' intentions to adopt Robo-advisors specifically. Furthermore, the findings highlight that it is possible that Robo-advisors will cause disruption to traditional methods of financial planning.

6.2 Practical implications

Adopting Robo-advisors will transform the traditional methods of financial planning and possibly impact the current financial planning process followed. However, if used correctly, these tools can facilitate an easier process for both financial planners and clients. By addressing the elements of the Robo-advisory model, institutions and professional bodies within the financial planning sector can facilitate the process of adoption into practices.

6.3 Limitations and recommendations

Due to the time and financial restraints imposed on this study, a limited sample was used for data analysis. The insights and viewpoints attained in this study were therefore limited to those financial planners who reside in one region only. An improved understanding and overview of a broader range financial planners would be achievable from the input of financial planners from other provinces.

A more in-depth analysis into how each of the components of the Robo-advisory model influence the intentions of financial planners could be beneficial in developing an understanding into the underlying issues which may hinder adoption. Furthermore, a study of a similar nature, perhaps with a quantitative approach can be executed on a larger scale, with participants from various regions. These results will help gain a broader perspective on the intentions of adoption and highlight factors within the Robo-advisory adoption model that are more influential than others.

Research into Robo-advice is novel as limited research has been conducted in this area, even more so in the local South African context. Increased insights are required as the South African financial landscape differs from other countries where the use of Robo-advisors may be more widespread. However, lessons can be derived from the experiences and performance of practises abroad who have adopted Robo-advice. Analysis of performance indicators and experiences of foreign practises could inform the development of more clear guidelines for use by the financial planning industry. These guidelines could facilitate incorporation of Robo-advisors into service offerings whilst causing minimal disruption to the traditional methods to which clients and financial planners are accustomed. Furthermore, the training and education initiatives of countries where Robo-advisors are used widely need to be investigated. Formal training and education locally are limited, as many of the participants indicated that they have learnt about Robo-advice from their own research initiatives

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