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ROBO ADVISOR, YOUR RELIABLE PARTNER?
Building A Trustworthy Digital Investment Management Service

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Supervisor: Pekka Tuominen

Anni Salo

ABSTRACT

University of Tampere School of Management, Marketing
Author: SALO, ANNI
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Investment management services have strongly relied on traditional face-to-face business models, causing the services being highly expensive and therefore available only for the wealthiest population. Recently a new digital business model, *robo advisors*, entered the market and are predicted to democratise the entire industry by bringing investment management services available to a wider public than ever before.

Although the business models in financial services are changing, customer trust and loyalty are still essential for the sensitive industry. Therefore, the purpose of this study is to describe and analyse how trust and loyalty emerge in the context of digital investment management services. In terms of customer understanding, this study also reviews the reasons for a customer to prefer a digital investment management service over the traditional model.

The theoretical framework of the study consists of a review into traditional and digital service characteristics and the process of building a customer relationship. Building a customer relationship includes concepts of service quality, satisfaction, trust and loyalty. The research data was generated with qualitative methods by observing in two industry seminars and interviewing five industry experts in Europe.

Findings of the study propose dividing the customers of robo advisors into four different segments. *Delegators* are seeking to fully outsource their investment management, *optimisers* want to find the most efficient option for their investments management, *DIY* segment only seeks for advice to support their investment decisions, and the fourth *B2B2C* segment refers to a white-label service delivered to individuals via other service providers.

Furthermore, to build trust, robo advisors should fulfil the major quality dimensions of utilising advanced technologies, fascinating user experience, suitable financial product offering, and a wide customer base. The importance of a strong brand, customer support availability, and a fluent omni-channel approach were also recognised as important trust-building elements. Service providers attempting to strengthen customer loyalty should consider advanced customer engagement techniques.

The findings of this study assist practitioners in understanding customers and business models in digital investment management services. The managerial implications can be especially useful for executives, business developers and consultants working with building digital offerings for investment management companies.

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Varainhoitoalalla on perinteisesti luotettu liiketoimintamalleihin, jotka perustuvat asiakkaan ja palveluntarjoajan edustajan henkilökohtaiseen suhteeseen. Palvelumallin vuoksi varainhoitopalvelut ovat olleet hintavia, ja siten vain varakkaimpien saatavilla. Vastikään markkinoille on esitelty uusi digitaalinen liiketoimintamalli, *robottisijoitusneuvojat*, joiden ennustetaan demokratisoivan koko varainhoitoalaa tuomalla palvelut yhä laajemman yleisön saataville.

Vaikka finanssialan liiketoimintamallit ovat muutoksessa, asiakkaan luottamus ja uskollisuus ovat yhä olennaisia alan arkaluontoisuuden vuoksi. Tämän tutkimuksen tarkoitus on kuvata ja analysoida, miten luottamus ja asiakasuskollisuus syntyvät digitaalisessa varainhoitopalvelussa. Asiakasymmärryksen luomiseksi tutkimuksessa tarkastellaan myös syitä sille, miksi asiakas valitsee digitaalisen palvelun perinteisen mallin sijaan.

Tutkimuksen teoreettinen viitekehys tarkastelee erityisesti digitaalisten palveluiden ominaisuuksia ja asiakassuhteen rakentumista palveluliiketoiminnassa. Asiakassuhteen rakentuminen perustuu palvelun laatutekijöihin, asiakastyytyväisyyteen, luottamukseen ja uskollisuuteen. Kvalitatiivista aineistoa kerättiin viidestä eri Euroopan maasta havainnoimalla kahdessa alan seminaarissa sekä haastatteleamalla viittä alan asiantuntijaa.

Tutkimuksen tuloksissa esitetään digitaalisten varainhoitopalveluiden asiakastyyppeiden segmentoimista neljään eri pääryhmään. *Ulkoistajat* pyrkivät ulkoistamaan varainhoidon, *optimoiijat* tahtovat löytää itselleen tehokkaimmat varainhoitoratkaisut, *DIY*-segmentti hoitaa sijoituksensa itse, mutta etsii neuvoja ja vinkkejä, ja neljäs *B2B2C*-segmentti viittaa white-label -malliin, jossa digitaalinen varainhoito toimitetaan yksilöille toisen palveluntarjoajan kautta.

Luottamuksen rakentamiseksi digitaalisten varainhoitopalveluiden tulisi täyttää laatukriteerit, jotka sisältävät edistyneiden teknologioiden käytön, ylivoimaisen käyttäjäkokemuksen, kohderyhmälle sopivan tuotetarjooman, sekä laajan asiakaskunnan. Myös vahva brändi, asiakastuen saatavuus sekä monikanavaisuus tunnistettiin tärkeinä luottamusta rakentavina tekijöinä. Asiakasuskollisuuden vahvistamiseen pyrkivien palveluntarjoajien tulisi hyödyntää edistyneitä asiakassitouttamisen tekniikoita.

Tutkimuksen tulokset auttavat finanssialan ammattilaisia ymmärtämään asiakkaiden ja liiketoimintamallien muuttuvia tarpeita digitaalisessa varainhoidossa. Tutkielman liikkeenjohdolliset päätelmät voivat olla erityisesti hyödyksi johtajille, liiketoimintakehittäjille sekä konsulteille, jotka työskentelevät varainhoitoyhtiöiden digitaalisen kehittämisen parissa.

Table of Contents

1 INTRODUCTION	6
1.1 The digitalising world of investment management.....	6
1.2 Problem setting and research questions	8
2 INVESTMENT MANAGEMENT IS A TRUST BUSINESS	13
2.1 Characteristics of services.....	13
2.1.1 History of traditional services	13
2.1.2 Characteristics of digital services.....	15
2.2 Trust relationship between customer and service provider.....	16
2.2.1 Trust in the digital era	18
2.2.2 Significance of trust in the financial industry	19
2.3 The role of service quality in trust building.....	21
2.4 The role of satisfaction in trust building	24
2.5 Beyond trust with customer loyalty	25
2.6 Synthesis of the theoretical framework.....	26
3 CONDUCTING THE STUDY	29
3.1 Research philosophy	29
3.2 Research strategy	31
3.2.1 Qualitative methodology	31
3.2.2 Data generation	33
3.2.3 Data analysis	38
4 BUILDING A TRUSTWORTHY ROBO ADVISOR	40
4.1 Reasons for choosing a robo advisor over a traditional advisor	40
4.1.1 Encouraging attributions of robo advice	40
4.1.2 Disadvantageous attributions of robo advice	42
4.1.3 Different customer segments and their expectations.....	43
4.2 Characteristics of a trustworthy robo advisor	46
4.2.1 Service quality dimensions.....	46
4.2.2 The importance of branding	52
4.2.3 Not digital only, but digital first.....	54
4.3 Engagement as a key for customer loyalty	57
4.4 Re-evaluation of the theoretical framework	59
5 SUMMARY AND CONCLUDING REMARKS	62
5.1 Summary of the research	62
5.2 Theoretical contributions of the research.....	66
5.3 Managerial implications of the research	69
5.4 Evaluating the research quality	76
5.5 Further research perspectives.....	78
REFERENCES	80
APPENDICES	89
APPENDIX 1: International interviews and observation	89
APPENDIX 2: Interview guide	90

List of Figures

Figure 1. Quality dimensions in digital services	22
Figure 2. Quality dimensions in e-banking	23
Figure 3. Synthesis of the theoretical framework.....	28
Figure 4. Illustration of the abductive research process in this study.....	30
Figure 5. The process and schedule of data generation.....	37
Figure 6. Quality dimensions in digital investment management services	51
Figure 7. Elements for building a trustworthy robo advisor.....	56
Figure 8. Re-evaluation of the synthesis of the theoretical framework.....	61
Figure 9. Contribution continuum	68

List of Tables

Table 1. Academic research in service over time	14
Table 2. Introduction to interview informants.....	35
Table 3. Example of the data analysis process	39

1 INTRODUCTION

1.1 The digitalising world of investment management

Demand for financial advice and investment management is facing growth due to global wealth gains, especially in the increasingly wealthy middle class (Credit Suisse Research Institute 2016, 41). According to Credit Suisse Research Institute (2016), household wealth gains, driven by increases in financial assets, have been reported yearly since 2008, only year 2016 being an exception due to the slowdown of global economy. The demand is also caused by the increasing complexity of the industry, such as tightening regulation and intricate investment instruments, resulting from the recent crises and technology developments in the industry.

At the same time digitalization seems to be a transforming power across every industry. It is an actively discussed topic around the world and widely included in the strategies of companies, institutions, and societies. The pressure is also faced by the financial industry, but when it comes to digital services, finance has been considered as an industry that lags behind.

Digitalisation is fairly new to the financial industry as after the financial crisis in 2008, while other industries were probably concentrating on how to build their businesses in the digital age, financial services concentrated on survival and correcting internal processes to avoid similar crises in the future (Dapp 2014, Grass & Rufer 2015, European Commission's High-level Expert Group 2016). It can still be argued whether the crisis is resolved or not, but recent signals reveal that organisations have increasingly started to turn their heads into the future: Focusing on customers and digitalisation.

Additionally, the regulatory environment has been tightening significantly since the financial crisis in 2008, which requires attention from financial organisations (Dapp 2014, Grass & Rufer 2015, European Commission's High-level Expert Group 2016). Tightening regulation includes topics such as increased protection of individual investors, more

comprehensive background checks to prevent money laundering, and pervasive reporting requirements towards the financial market authorities. Luckily, to some extent digitalisation and increasing regulation go hand in hand, as being able to succeed in the increasingly complex regulatory environment requires having powerful and modern software to successfully manage and fulfil those regulatory requirements.

It is widely acknowledged that in the environments of increasing regulation and consumer empowerment, intelligent technical solutions are a way to stay profitable and necessary for survival. One driver for the change is the tech-savvy generation of Millennials, who will be in charge latest after gaining the control over the wealth of their closest relatives (Patel & Spellacy 2016). Nevertheless, it might be difficult for a financial service company to take the step in transforming their business, as if something goes wrong, they might lose the trust of their customers.

This concern is not unnecessary, as previous research has proved that customer relationships in financial services are based on trust (Zineldin 1995, Knights, Noble & Vurdubakis 2001, Tyler & Stanley 2007, Sunikka, Peura-Kapanen & Raijas 2009). This trust is mainly emerging from individual relationships between the investment advisor and the customer (Sunikka et al. 2009). However, in a digital environment, services are lacking the process of trust-building between individuals as such. As much as digitalisation can bring advantages, it also brings concerns, one of them being how to build a trust relationship between a service provider and the customer in a digital context?

We are now getting closer to a shift where it is no longer eligible to lag behind on offering digital services, as consumers are increasingly well-informed and demand more flexible, fluent and available services – in finance, too. If a company lacks digital services, some other company will surely offer them, and also take possession of the customers. To respond these customer needs, companies have already launched the first digital services in the investment management industry.

One recognisable, even significant phenomenon consists of digital services that are based on algorithms and artificial intelligence, where delivering the service does not require any

human touch from the provider's side in a normal service situation. This kind of digital-only investment management service without human contact in the service process itself is called a *robo advisor*. It refers to a digital service provides investment advice and investment management, usually for individuals. The advice is based on information that the user submitted to the system, and the system interprets the information into an easily understandable format with the help of algorithms. The solution is normally web-based, or may even be available through a mobile app. Robo advisors were projected to have as much as \$300 billion assets under management at the end of 2016 – and reaching even \$2.2 trillion by 2020 (Epperson, Hedges, Singh & Gabel 2015, 26).

But why all the buzz around robo advice? Why is it considered bringing a revolution to investment advice and investment management? Robo advisors bring a multitude of benefits from both, service providers and their customers point of view. For service providers, a robo advisor enables significant cost savings compared to traditional investment advice. However, service providers also need to accept lower commissions.

As an algorithm-based process without human interaction, getting financial advice is cost-efficient also for the customer. Due to a high level of automation, clients can get sound and robust advice at low cost. To minimise embedded investment costs and complexity, robo advice platforms often invest in low-cost securities such as exchange-traded funds. Getting *robo advice* is easy as it is always accessible for the user through online and mobile platforms. Robo advice enables customers in lower income levels to get financial advice that was previously restricted only to the wealthiest population, and the wealthiest can enjoy increasingly cost-efficient and transparent investing, available at any time and any place.

1.2 Problem setting and research questions

In digital services a lot of traditional elements of physical service are fading away, especially the phase of generating a trust relationship between individuals. How these digital services can succeed when the most important source of trust, human contact, is removed from the process? Could it be a change in consumer behaviour that they tend to

trust computers and algorithms more than other human beings? Which are the factors that communicate trustworthiness when people use digital services? The previous research in this field has been done mainly in the digital environment in general (Hoffman, Novak & Peralta 1999b, Reichheld & Scheffer 2000, Schoder & Yin 2000, Zeithaml, Parasuraman & Malhotra 2000), in e-commerce (Fukuyama 1995, Hoffman et al. 1999b, Schoder & Yin 2000, Urban, Sultan & Qualls 2000), digital payment solutions (Baker 1999, Hoffman, Novak & Peralta 1999a), online trading and brokerage (Balasubramanian, Konana & Menon 2003), and electronic banking (e-banking) services provided by established banks (Lee & Turban 2001, Stewart 2003, Yousefi & Naisiripour 2015). A review into these studies is done later in the thesis.

After getting deeper into the topic, surprisingly only a marginal of the research on trust in the digital age has been conducted in the investment management sector, and based on my knowledge of the field, this research is mainly done by consultancy companies. In the academic research field, I was not able to find any research on the matter. However, I believe digitalisation is here to stay, and at least we are not taking steps backwards in technology. Some hard times such as crises can and will always occur, but what I believe is that it will only help in strengthening and improving digital services.

It is also predicted that the digitalisation of financial services will challenge the importance and existence of traditional banks, which could be superseded by new, born-digital and born-global start-ups. Therefore, I believe it is extremely important to carry out academic research on these newcomers instead of banks with long traditions. The same feedback I have received from working in the financial industry for two and half years. To exemplify, one of the important opportunities for start-ups and new businesses in the near future is the revised directive on payment services, PSD2, introduced by the European Commission and effective from the beginning of 2018. By this directive banks are enforced to open their infrastructures to third parties by providing an access to their customer accounts and transactions. The change will be a big opportunity for the financial industry and companies seeking to enter the industry.

To conclude, trust is an extremely important hygiene factor in the financial industry, and the previous research has highlighted it being a major issue for customer e-banking adoption (Lee & Turban 2001, Stewart 2003). In this study, the goal is to figure out how service providers could facilitate the adoption of digital investment management services, that is, how these service providers can communicate reliability towards customers. What is also interesting is to try to find aspects that lead from customer trust to customer loyalty. Traditionally banks and investment managers tend to have loyal customers as it is cumbersome to change the provider. When these services turn digital, switching and comparing services is getting easier. How service providers can gain the loyalty of their customers, if switching to an alternative service is extremely easy and effortless?

The purpose of this study is to describe and analyse how trust and loyalty emerge in the context of digital investment management services. In terms of customer understanding, this study also reviews the reasons for a customer to prefer a digital investment management service over the traditional model. Hence, I hope to reach these objectives by finding answers into following research questions:

1. What are the reasons for an individual to use digital investment management services instead of the traditional model?
2. What are the characteristics of a trustworthy digital investment management service?
3. What is the role of loyalty in digital investment management services?

This research is limited to cover digital investment advice and investment management services that are based on algorithms and artificial intelligence, which will leave out services that are delivered through digital channels but where the customer interacts with another human being, or where delivering the service requires manual work from the provider side at some point of a *normal* service situation. The research also covers only investment management services which include investment advice, investment planning, and investment management. Therefore, this research does not apply on other digital services within the financial industry, such as banking, brokerage, or fund-raising platforms.

Also, the aim of this research is to concentrate on the elements in the digital service itself, and not to concentrate for example on digital services offered by big banks. The previous research has showed that especially in e-banking adoption a significant factor in generating trust is the reputation and history of the provider bank (Yousefi & Naisiripour 2015), but new start-ups in the industry may not have that kind of brand assets, so I believe the features of the digital service itself are increasingly important.

This research is seeking to contribute the research theme in following ways. In the academic side, the aim is to start a discussion, highlight the importance of academic research in the field, and provide a solid opening for the academic research of digital investment management services. I intend to build understanding on trust in digital financial services, as previous research highlights that these digital services in the financial industry are lacking trust.

As a bonus, I also seek to identify attributes for building loyal, long-term customer relationships in digital financial services. I intend to generate results that can be tested, developed, and challenged in the future research. Furthermore, the objective is also to conclude results into a form where the results are also helpful for the practitioners in the industry – the ones who build or consider building digital investment management services – to pay attention in relevant aspects when attempting to create successful service concepts.

This thesis is structured in the following way. First I get deeper into services research and theories, including the history of services research and traditional characteristics of services, after which I compare this knowledge into the characteristics of digital services. I also examine previous research regarding trust in customer relationships and services, going further also to perceived trust in digital services.

Trust is also viewed in the context of investment management services. I present a comprehensive review into the importance of trust and how trust emerges in the industry. In general, according to previous academic research, trust plays an important role in the industry (Zineldin 1995, Knights et al. 2001, Tyler & Stanley 2007, Sunikka et al. 2009),

and mainly emerges from personal relationships between the investment advisor and the customer (Sunikka et al. 2009). The intention for this research is to figure out how trust relationships are formed in a digital context where it is not possible to base the trust on human-to-human relationships.

I am also introducing and discussing the concepts that I assume are affecting the formation of trust, which are service quality and satisfaction. Thereafter, loyalty is discussed as an outcome of a strong trust relationship between customer and the service provider. The synthesis of the theoretical framework is based on assumed steps that build trust, and going further, loyalty. These steps are perceived service quality, satisfaction, trust, and loyalty. After the theory review I describe the research design, methodology, and approach. Empirical part of this study presents the collected empirical material, which is followed by interpreting and presenting the results and re-evaluating the synthesis of the theoretical framework. Finally, the conclusion consists of a summary, contributions, managerial implications, and suggestions for future research.

2 INVESTMENT MANAGEMENT IS A TRUST BUSINESS

2.1 Characteristics of services

Services can be characterized as intangible. When buying a service, the client is not able to examine the product before the purchase (Lovelock 1981; Parasuraman, Zeithaml & Berry 1985; Solomon & Stuart 2015, 288), and purchasing a service does not result into a concrete ownership of anything (Kotler & Keller 2012, 356). Before the purchase buyers tend to constantly look for evidence whether the service will fulfil their expectations, and providing this evidence for customers is critical from the service provider's point of view (Solomon & Stuart 2015, 288). This evidence can be for example eyeing frontline employees, reading customer reviews, or orientating in information offered by the service provider, such as reading a leaflet or browsing through their website.

2.1.1 History of traditional services

Interest towards services started around 1970s after noticing the absence of services in management and business disciplines, even though the statistics indicated services being the largest economic sector in developing countries (Gummesson & Grönroos 2012). According to Gummesson and Grönroos (2012), before 1970s services were not observed in the dominating marketing management research nor in the business school agendas, but the research and experience was built on mass manufactured and mass distributed consumer goods. After the acknowledgement of the domain, academic researchers started to work around it and challenged the dominance of mass-produced and mass-distributed consumer goods. Also service companies and governments realised the need for service marketing and management (Gummesson & Grönroos 2012). Gummesson (2012) has even classified the history of marketing research into three paradigms: the goods paradigm (pre-1970s), the services vs. goods paradigm with focus on differences (1970s-2000s), and the service paradigm (2000s-).

Nowadays services are characterising the world around us. More than 70% of gross domestic product (GDP) in the most advanced economies consists of services and the percentage is only predicted to grow (Ostrom et al. 2010). The goods sector is losing its share in the overall economy, and Rust & Miu (2006, 50) have even stated that all companies must become service companies to survive in the competition. Service is becoming the key differentiator, also in the goods sector (Rust & Miu 2006, 50).

Table 1. Academic research in service over time (adapted from Rust & Miu 2006, 51)

1970s	Service is different from goods
1980s	Measuring customer service and service quality
	Complaint management
1990s	Making service improvements finally accountable
	Direct marketing and CRM
2000s	Managing customer lifetime value and customer equity
	Profitable long-term relationships with customers
	Basing corporate strategy on service

According to Rust & Miu (2006, 50), in the 1970s services marketing research stressed differences between goods and services, after which the domain emphasized the quality of services in 1980s. In 1990s researchers found models to finally make services accountable, and advantages in IT assisted in this. Since the beginning of 2000, researchers have taken a relationship approach into services design, including the conception of customer lifetime value. See Table 1 for a summary (Rust & Miu 2006, 51).

2.1.2 Characteristics of digital services

Technology has revolutionised the way we consume and experience services. The main characteristic where a digital service differs from a traditional service is the absence of frontline employees. Service companies have traditionally used frontline employees to reduce customers' uncertainties, and also to create and maintain customer relationships. Needless to say, face-to-face contact is usually not possible in a digital service environment (Fernández-Sabiote & Román 2016, 425).

Traditionally consumers using digital channels are seeking for rational and functional benefits, such as a certain price level, convenience, accessibility, and efficiency (Fernández-Sabiote & Román 2016, 424). However, research has shown that also less rational and more emotional or psychological benefits may be experienced, i.e. entertainment, reduced anxiety, and comfort (Colgate, Buchanan-Oliver & Elmsly 2005, Ko, Cho & Roberts 2005, Su, Li & Cui 2009, Klaus 2013). Constantinides (2004) argues that especially when psychological benefits are experienced, it helps the user to overcome uncertainties in a situation where the customer is unfamiliar with the service provider or the usage of online channels.

In a multichannel services research, it has been identified that the complexity of a service is influencing the channel choice made by the customer. Greater complexity means increased likelihood for choosing a traditional face-to-face service channel instead of a digital service (Fernández-Sabiote & Román 2016, 427). Fernández-Sabiote and Román (2016, 430) also notice that a customer's personal need for interaction varies and influences the channel selection. If the customer has a high need for interaction, he might avoid self-service, but customers with low interaction needs are actively seeking for self-service options.

Individual differences in Internet usage expertise are also a factor affecting a customer's need for interaction, which can make an individual either advocate or avoid digital channel usage (Montoya-Weiss, Voss & Grewal 2003, 456). I see this highly prominent in the prevalent environment where parts of the population do not have any experience in Internet usage, whereas the other extremity of population tends to only use digital service

channels and may even avoid traditional face-to-face services. Obviously, for digital services, it is easier to overcome the expectations of customers with a lower need for face-to-face interaction than customers with a higher need for interaction (Fernández-Sabiote & Román 2016, 439). In fact, customers with low interaction needs are less motivated to interact with frontline employees and may not see the value emerging from face-to-face service, and they also tend to be more independent and willing to do things by themselves (Fernández-Sabiote & Román 2016, 439).

But how customers can be convinced and satisfied when offering complex services only through digital channels, without the face-to-face option? In this situation, the customer needs to use greater cognitive effort and spend more time and effort to benefit from the consumption of the service (Simon & Usunier 2007). In this context Fernández-Sabiote and Román (2016, 424) especially highlight the importance of psychological benefits in reaching a satisfying digital service experience. They suggest that a digital service enhancing customers' psychological benefits may lead to better overall trust towards the service and its provider.

Information technology (IT) has reduced costs of providing and improving services, leading to so called mass-services (Rust & Miu, 2006). However, differing from mass production of goods, instead of product-centric approach, services field is a customer-centric approach (Rust & Miu, 2006). Advances in technology further ease tailoring services and communication with customers. More personalised confluence with customers is getting increasingly economical, and Rust & Miu (2006) also anticipate that a natural endpoint for these advances would be the possibility to accomplish totally personalised communications with every customer.

2.2 Trust relationship between customer and service provider

As services are characterized as intangible, and therefore, the client is not able to examine the product before purchase and the purchase of a service does not result into a concrete ownership of anything. Here trustworthiness of the service provider takes its importance (Davis, Guiltinan & Jones 1979, Brown & Fern 1981, Murray & Schlacter 1990).

Fernández-Sabiote & Román (2016, 429) highlight that the relationship between satisfaction and trust of a certain service or service provider has received notable theoretical and empirical support (e.g. Garbarino & Johnson 1999, Geyskens, Steenkamp & Kumar 1999). At first, the customer has expectations, and by the service provider meeting those expectations, the customer feels satisfied. Customer satisfaction is cumulating over time and appears as perceived reliability of the service and the service provider (Fernández-Sabiote & Román 2016).

Generally, trust is an important part in forming and maintaining successful relationships (Dwyer, Schurr & Oh 1987, Moorman, Deshpandé & Zaitman 1993, Morgan & Hunt 1994, Berry 1995) and one of the key constructs of relationship marketing (Ribbink, Riel, Liljander & Streukens 2004). Definitions of trust usually have a mutual character of highlighting the importance of reliability and confidence in relationships. As an example, for Morgan and Hunt (1994, 23) trust means "confidence in the exchange partner's reliability and integrity", and Moorman et al. (1993, 82) define trust as "a willingness to rely on an exchange partner in whom one has confidence". Mayer, Davis and Schoorman (1995) indicate in their study that the requirement of trust emerges the more the relationship between the service provider and the client includes uncertainty, risk and/or lack of knowledge or information.

Garbarino & Johnson (1999) propose that the customer base of an organisation can be divided into two relational groups. The first group consists of customers with more transactional relations towards the company, such as buying a product every now and then, but without aiming to form more special relationship with the organisation. This kind of customers could as likely go and buy the same product from another company, and what they are interested in is the satisfaction during and after the transaction. The second group includes customers with a stronger relation towards the company, meaning that they are consistently repeating their purchase and interacting with the organisation. Rather than satisfaction, this customer group is seeking for commitment and trust in the relationship.

2.2.1 Trust in the digital era

“To gain the loyalty of customers, you must first gain their trust. That’s always been the case, but on the Web ... it’s truer than ever.” (Reichheld & Schefter 2000, 107)

When buying services, customers tend to experience higher levels of uncertainty and perceived risks due to the intangible nature of services. Traditionally service companies have reduced this uncertainty by using frontline employees (Venkatesh, Morris, Davis & Davis 2003), but how can a digital service reduce uncertainties when the context is lacking human contact?

As trust in its *‘traditional’* form was earlier defined as confidence and reliability, can e-trust be defined as the feeling of confidence that customers have when they are using a digital channel for service exchange (Reichheld & Schefter 2000). It has been stressed that trust in digital environment is even more crucial than in physical service situations (Reichheld & Schefter 2000). Reichheld and Schefter (2000) suggest that the need for trust is said to emerge specifically from the lack of human touch. The essential nature of trust in digital channels has been acknowledged not only by customers and service providers but also by authorities and governments by setting regulations to, for example, e-commerce.

Balasubramanian et al. suggested already in 2003 in their study of customer satisfaction in online trading and brokerage that trust in online services is emerging from repeated interactions with the service provider. They justify this by explaining that interactions with the service provider (or the service itself) allow users to make judgments on service attributes such as information reliability and availability.

Balasubramanian et al. (2003) also point out the findings of Zeithaml et al. (2000), judging that this kind of experience-based trust formation process is characteristic in online environments, as in an online environment customers might find it difficult to set pre-consumption expectations of the service. In a traditional service environment,

customers would set the pre-consumption expectations by evaluating the surroundings, such as the appearance of facilities, employees, and equipment.

Furthermore, Balasubramanian et al. (2003) also suggested that in online environments with the absence of human interaction, 'institutional safeguards' such as regulation have bigger role in the trust formation process. Eventually, based on Balasubramanian et al. (2003) findings, operational competence (e.g., high system availability, ease of use, best prices, and fast response times) of the online service is a potentially useful tool for building trust, and that indicating the environmental security of the service can also help in evoking operational competence and trust beliefs in the client.

Previous research has shown for example consumers not trusting in online retailers themselves (Fukuyama 1995, Urban et al. 2000), nor their payment systems (Baker 1999, Hoffman et al. 1999a), but also the nature of online shopping and the Internet itself (Hoffman et al. 1999b, Schoder & Yin 2000). E-banking is not an exception: Trust is essential in the adoption of e-banking and the critical building block for bank-customer relationships. Stewart (2003) claimed that the failure of e-banking services has been caused mainly by the consumers' mistrust towards digital channels, and Lee & Turban (2001) documented similar results by declaring that the main reasons why e-banking has not been adopted to the identical level with e-commerce among consumers are risk concerns and trust-related issues.

2.2.2 Significance of trust in the financial industry

The importance of trust in the financial industry has been stressed in various studies. For example, Zineldin (1995, 33) pointed out trustworthiness being a dominating factor in banking as banking services tend to involve more risk and uncertainty than other businesses, followed by Knights et al. (2001, 318) arguing that the financial services industry can be said to be the business of trust. Financial services are highly intangible and can therefore be harder to understand for the customer. This can cause an information asymmetry which in turn sets the requirement of trust in the customer relationship (Harrison 2003). A study conducted in corporate banking in UK (Tyler & Stanley 2007,

337) revealed that the “overwhelming majority” of respondents stressed trust as a critical part of their banking relationships, and a significant cohort also adding that without trust there is no relationship, and a failure in that trust would likely discontinue the relationship.

Sunikka et al. (2009, 68–70) highlight the importance and characteristics of trust specifically in the context of investment management, which was also consistent with previous research on the field (e.g. Crosby et al. 1990, Mayer et al. 1995). As a result of their research they found out that trust springs from personal characteristics of the financial advisor (“the trustee”) and the relationship between the advisor and the customer. In the study trust was also seen, mainly by the professionals in the financial industry, to emerge from the financial services infrastructure, which means trust in protective structures in the market (such as legislation, regulation, contracts, etc.).

As trust plays an important role and is built in personal, human-to-human relationships, question lays in the digitalisation of the investment management industry. How to fulfil the hygiene factor of forming a customer relationship in investment advisory business – build trust between the service provider and its customers – when the digital context is lacking human interaction that has been acknowledged as a significant source of trust?

Yousefi and Naisiripour (2015) studied trust in e-banking services, and one significant finding was that the greatest impact on customer trust was the features of the service provider, the bank. These features are the bank’s reputation, size, and dependence on a government. Yousefi and Naisiripour (2015) further suggested that the bigger bank and the longer history, the better it is for earning the trust of their customer in an e-banking context. This might not stack up anymore with digital investment management services as instead of banks, these services are also launched by start-ups that are small and do not have a long history. Are banks too old, big and slow to keep up with the technology advancements? Or could people be favouring start-ups over traditional banks after the recent financial crises?

2.3 The role of service quality in trust building

The first ones to conceptualize service quality were Parasuraman, Zeithaml and Berry in 1988. According to them, service quality means the customer's overall impression on the superiority of the service and its provider, and it also affects the overall attitude towards the service provider (Parasuraman et al. 1988). The customer tends to evaluate both, quality during the service process as well as the final outcome quality (Parasuraman et al. 1985, Parasuraman et al. 1988, Bitner 1990, Grönroos 2015). According to Kassim and Abdullah (2010), service quality has a significant effect on customer satisfaction, and going further, satisfaction is the core of building customer trust. Service quality appears to be particularly important in online contexts (Harris & Goode 2004). Ghane, Fathian and Gholamian (2011) researched the topic in e-banking context and noticed that in e-banking service quality has a direct effect on customer's satisfaction and therefore it also affects perceived trust towards e-banking services.

Parasuraman et al. (1988, 1991) have defined service quality (SERVQUAL) core dimensions being reliability, responsiveness, assurance, empathy, and tangibles. However, I believe that nowadays in digital services the list is not directly applicable. Kassim and Abdullah (2010) note that the previous research has transferred these SERVQUAL core dimensions into the digital age, those dimensions being ease of use, website design, responsiveness, personalisation or customisation, and assurance. These dimensions for digital service quality have, per Kassim and Abdullah (2010), been well conceptualized and researched (e.g. Gummerus et al. 2004, Ribbink et al. 2004). These digital service quality dimensions are further outlined in the following paragraphs and after this visualised with Figure 1.

The *ease of use* dimension includes characteristics such as functionality, information accessibility, and the ease of navigation and transaction (Reibstein 2002). Gummerus et al. (2004) suggest that the ease of use reflects the service provider's competence and therefore affects trust overall.

The *website design* dimension is of critical importance as it has a direct effect on user experience, and it includes the content, organization, and structure of the site, which

should also be visually appealing and fascinating (Kassim & Abdullah 2010). Website design also preferably has a direct effect on the trustworthiness of the site (Luo, McGoldrick, Beatty & Keeling 2006).

The *responsiveness* dimension is similar to the traditional SERVQUAL model. It represents the prompt attitude of the service provider if customers are facing any problems (Zeithaml, Parasuraman & Malhotra 2002).

The dimension of *personalisation or customisation* can also be understood as in the original SERVQUAL, and it reflects the degree to which the service is tailored to meet the needs of an individual user (Zeithaml et al. 2002). Zeithaml et al. (2002) note that this is getting increasingly important in digital services, and includes four sub-dimensions which are personal attention, preferences, understanding the specific needs of an individual customer, and information regarding product modification.

The *assurance* dimension refers to perceived privacy and security. Yousefi and Nasiripour (2015) defined perceived privacy as users' ability to control their own information, and perceived security refers to a threat that can cause an information destruction, disclosure, modification, fraud, and/or abuse, or denial of a service. I believe this is of extreme importance especially in the digital investment management service setting.



Figure 1. Quality dimensions in digital services (adapted from Kassim & Abdullah 2010)

Yousefi and Nasiripour (2015) in turn researched models of trust in e-banking services and introduced four hypothetical quality dimensions for e-banking services, which are ease

of use, usefulness, perceived privacy, and perceived security. Ease of use they described as a specific system being free of effort for the client to use, and it was measured with time savings, availability, and the browsing speed of the service. By usefulness Yousefi and Naisiripour (2015) refer to the extent which customer believes a specific system will enhance their performance. Perceived privacy and security were defined as just explained previously.

However, Yousefi and Naisiripour (2015) resulted in rejecting the usefulness as based on their research it did not influence the customer trust towards e-banking. These e-banking quality dimensions could also apply for digital investment management services as both services are working under the same industry, however this cannot be proved without careful evaluation and testing. E-banking quality dimensions suggested by Yousefi and Naisiripour (2015) are visualised below with a Figure 2.

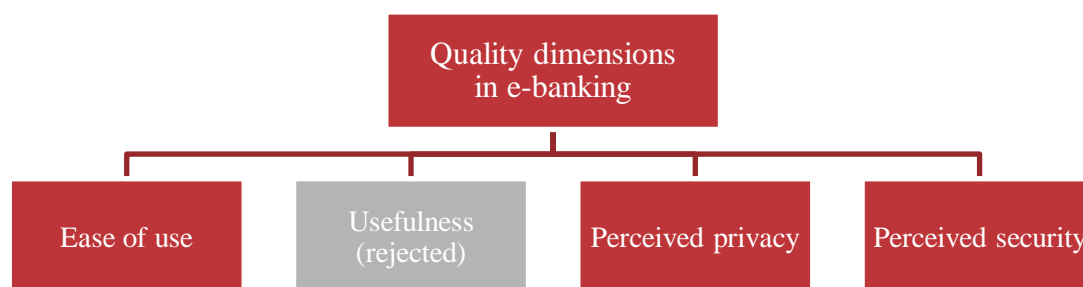


Figure 2. Quality dimensions in e-banking (adapted from Yousefi & Naisiripour 2015)

Even though Yousefi and Naisiripour (2015) resulted in rejecting the dimension of usefulness, in this study I would like to consider the idea of it. When the competitive environment is getting tighter in the digital investment management services, I believe perceived usefulness of the service could have greater impact on customer trust and loyalty as well.

2.4 The role of satisfaction in trust building

Previous research has highlighted that service quality has a significant effect on customer satisfaction (Montoya-Weiss et al. 2003, Wolfinbarger & Gilly 2003), and customer satisfaction enhances repurchase intentions (Grigoroudis et al. 2007, Cameran, Moizer & Pettinicchio 2010, Ojo 2010, Sánchez-Hernández, Martínez-Tur, Peiró, & Moliner 2010). Service companies could therefore increase customer satisfaction by improvements in service quality.

Parasuraman et al. (1985) define customer satisfaction as customer's perceived feelings of happiness, fulfilment and pleasure towards the service through their overall experience with the company. Wilson, Zeithaml, Bitner and Gremler (2016) in turn defined it a bit simpler as the evaluation on if and how the service met customer's expectations and needs. This means that customers are satisfied if the service meets or exceeds their preliminary expectations on what they are going to get. In addition, Cameran et al. (2010) suggested that satisfaction is not directly derived from the service itself, but from the customer's personal expectations and perceptions of the service. Therefore, it can be suggested that a service provider needs to truly know their customers, as different customers might experience the same service differently.

Satisfaction is suggested to positively affect customer trust and loyalty (Oliver 1999, Kassim & Abdullah 2010), and this effect seems to occur in the online context as well: satisfied customers tend to have higher usage levels and they are more likely to repurchase and recommend the service, whereas dissatisfied customers are more likely to search for and switch to an alternative provider as well as they are more resistant on developing a true relationship with the service provider (Ghane et al. 2011). Satisfaction is the second step after service quality, and going further may lead to customer trust.

Yousefi and Naisiripour (2015) observed also satisfaction in their research of trust in e-banking. In their findings, they confirmed that services with high quality result in higher satisfaction and trust towards e-banking services, which was in line with previous research results by Kassim and Abdullah (2010) and Mircholi et al. (2012).

In the light of previous research of online services in general, and specifically in e-banking services, I believe that finding the right dimensions for the service quality of a digital investment management service, and improving those service quality dimensions while knowing and considering the target customer's expectations and needs, the service provider can enhance customer satisfaction and further build and strengthen customer trust and loyalty.

2.5 Beyond trust with customer loyalty

Loyal customers can enhance the success of a company. Attracting new customers is more expensive than nurturing old customers (Thaichon, Lobo & Mitsis 2014), and loyal customers are easier to reach, they are more willing to act as advocates of the company, and they tend to buy more (Harris & Goode 2004). Reichheld and Sasser reported already in 1990 that increasing the number of loyal customers by just five percent can result in 30 to 85 percent increased profitability. Having loyal customers has also proven to affect lowered costs in acquiring new customers (Reichheld & Sasser 1990, Reichheld, Markey & Hopton 2000). Especially in online channels Nielsen (1997) and Scheraga (2000) found loyal customers significantly profitable, but it has also been indicated that loyal customers in online channels are relatively rare (Harris & Goode 2004). Customer loyalty creation in online channels is both more difficult but also more important when comparing to retailing in offline channels (Harris & Goode 2004).

Previous research has argued that reaching customer loyalty requires first establishing and maintaining trust (Reichheld et al. 2000, Reichheld & Scheffer 2000, Stewart 2003, Harris & Goode 2004). Harris and Goode (2004) found out that trust plays a pivotal role in directly and indirectly driving loyalty. Deng, Lu, Wei, and Zhang (2010) suggest the same and described the process as follows: when customers trust the service provider, they continue using it and doing repurchases, and even recommend the service to others. In other words, that kind of behaviour can be called loyalty.

Kassim and Abdullah (2010) suggest that loyalty can emerge in two ways. It can be behavioural loyalty, such as customer's retention intentions, and emotional loyalty, such

as customer's intentions to recommend the company to others. Thaichon and Quach (2015) studied service quality, satisfaction, trust, value, commitment, and loyalty of Internet service providers' customers, and found similar dimensions for loyalty, which they named behavioural loyalty and attitudinal loyalty. Worthington, Russell-Bennett, and Härtel (2010) defined behavioural loyalty as a customer's tendency on repurchase, affecting brand sales directly, whereas attitudinal loyalty was characterised being customers' inner thoughts of attachment towards the company or the service, including recommendations and positive word-of-mouth (Zeithaml, Berry & Parasuraman 1996).

Ladhari and Leclerc (2013) studied the drivers of customer loyalty in the online financial services context. In their study, they defined loyalty as the customer's intention to use the financial organisation's web-based services in the future. What Ladhari and Leclerc (2013) found out was that the key drivers for e-loyalty are e-trust and e-satisfaction, positively correlating with efficiency and information quality. Additionally, in their research, service quality affected loyalty indirectly through satisfaction and trust. Ladhari and Leclerc (2013) also claimed that over 60 percent of loyalty in an online context can be explained with trust and satisfaction, however they also claimed that the proportion of satisfaction in gaining loyalty is five times bigger than the effect of trust. This does not match with the previous research introduced earlier in this chapter, proposing that relation is linear from service quality to satisfaction, from satisfaction to trust, and from trust to loyalty.

2.6 Synthesis of the theoretical framework

Trust is quite a lot researched topic in online environments (Fukuyama 1995, Baker 1999, Hoffman et al. 1999a, Hoffman et al. 1999b, Reichheld & Schefter 2000, Schoder & Yin 2000, Urban et al. 2000, Zeithaml et al. 2000) as well as in the financial industry (Crosby et al. 1990, Mayer et al. 1995, Zineldin 1995, Knights et al. 2001, Harrison 2003, Tyler & Stanley 2007, Sunikka et al. 2009). Also, the combination of financial industry and online environments has been under research (Balasubramanian et al. 2003), but mostly from the e-banking point of view (Lee & Turban 2001, Stewart 2003, Yousefi & Naisiripour 2015). Just during the very recent years, a new phenomenon known as robo

advice, meaning investment advice and asset management services offered digitally and online without any human interaction, have entered the industry. Traditionally investment advice and asset management services have been available only for high-net-worth clients, but robo advisors are now predicted to revolutionise the entire industry by bringing investment management services to larger audience than ever before (Resnik & Erskine 2015, Greenhalgh 2017, Pfeiffer 2017). As robo advice is such a big phenomenon in the financial services industry but fairly deficiently noticed in academic research, it is reasonable to pay some attention to the topic.

There is also research done both in offline and online environments on the relations between service quality, satisfaction, trust, and loyalty (Garbarino & Johnson 1999, Geyskens et al. 1999, Oliver 1999, Montoya-Weiss et al. 2003, Wolfenbarger & Gilly 2003, Kassim & Abdullah 2010, Yousefi & Naisiripour 2015, Fernández-Sabiote & Román 2016). However, views on their relations are varying. Some researchers' suggestions lean more towards a linear continuum (Garbarino & Johnson 1999, Geyskens et al. 1999, Harris & Goode 2004, Ribbink et al. 2004, Kassim & Abdullah 2010, Yousefi & Naisiripour 2015), as it is also suggested in this research, and some are suggesting more circle-like relations with indirect and direct effects (Ladhari & Leclerc 2013, Thaichon & Quach 2015, Fernández-Sabiote & Román 2016). There might also be other variables involved, such as perceived value (e.g. Harris & Goode 2004, Li et al. 2015, Thaichon & Quach 2015) and psychological benefits (Fernández-Sabiote & Román 2016). Even though there is some earlier research, Ladhari and Leclerc (2013, 560) suggested that the links between service quality, customer satisfaction, trust and loyalty need more research within the financial services industry (e.g. Herington & Weaven 2007, Karatepe 2011).

Based on the review of different theories, for the synthesis of the theoretical framework of this study I am suggesting following: Starting from perceived service quality, I propose service quality affecting satisfaction, and with satisfactory experiences a trust relationship can be formed between a prospect and a service provider. If the service provider succeeds with nurturing trust, the result might be a customer relationship, which further could also lead into customer loyalty. The synthesis of the theoretical framework also notifies the

hygiene factors and differentiating factors of the service, which appear during the different phases of digital investment management service usage.

The synthesis of the theoretical framework is visualised in Figure 3. The aim for this study is to apply the fit of the suggested framework to the industry under research, and further, suggest comprehensive models for trust and loyalty development in digital investment management services.

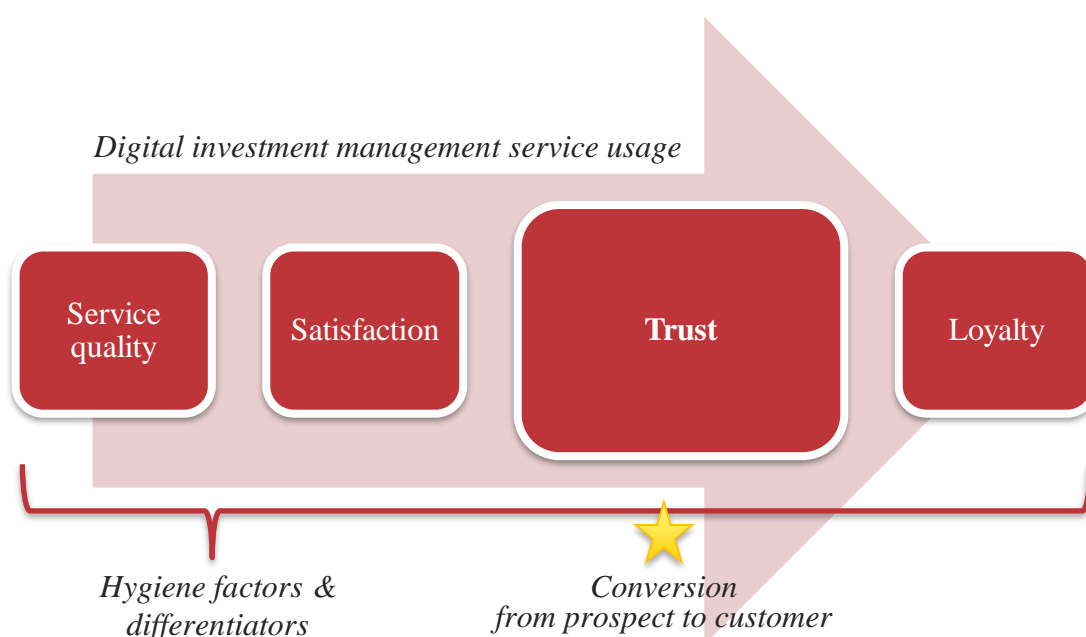


Figure 3. Synthesis of the theoretical framework

I chose trust being the main aspect to concentrate on as customer relationships in the financial industry are proven to be dependent on trust (e.g. Zineldin 1995, Knights et al. 2001, Tyler & Stanley 2007, Sunikka et al. 2009). However, in the setting of traditional investment management services, previous research has suggested trust to emerge from the personal relationship between the customer and the service representative (Sunikka et al. 2009). It would be interesting to find out the aspects on which trust is based on when using an online investment management service, as it is impossible to form a personal, human-to-human relationship in the environment.

3 CONDUCTING THE STUDY

3.1 Research philosophy

As Baker and Saren (2016, 31) highlight, in marketing research there is not any ‘correct’ method for evaluating theories, as neither there is any correct way to do science. Different researchers with different world views adopt different methodologies, ontologies, and epistemologies. Therefore, it is important to make visible the underlying philosophical assumptions behind a research project for the reader to understand on what circumstances the research is built on. As a researcher, I consider belonging into the moderate constructionism group of philosophical world views, which will now be further discussed.

Ontological assumptions are referring to what exists: is there a truth, and how many truths are existing (Järvensivu & Törnroos 2009, 101). The ontological continuum can vary from only one, true reality to no objective reality at all, where only local and socially constructed realities occur (Easton 2002, Lincoln, Lynham & Guba 2011). Moderate constructionists tend to position themselves to the ‘no objective reality’ side believing that there might be a reality (Järvensivu & Törnroos 2009, 101), but it is not that relevant whether it exists or not. Truth is defined as community-based and obtained from empirical data (Schwandt 2007, Nightingale & Cromby 2002).

Epistemology is the idea of what can be known, and varies from the notion that it is possible to know exactly what reality is by objective empirical observations, to a belief that it is possible to form an understanding of a subjective reality by analysing the subject (Järvensivu & Törnroos 2009, 101). Epistemological questions in moderate constructionism lean more towards the subjective reality by believing that it is possible to understand local truths by learning how truths develop in the context and by observing the group empirically, which is bounded by subjectivity (Järvensivu & Törnroos 2009, 101).

Methodologies on a continuum of different views can vary from a direct empirical observation to an analysis of knowledge structures and processes by observing texts (Järvensivu & Törnroos 2009, 101). In moderate constructionism, the methodology is to create community-based knowledge through empirical observation that is bounded by subjectivity (Järvensivu & Törnroos 2009, 101).

Also, the ways conducting a research may vary depending on the research philosophy. On the ‘one, objective reality’ side, which starts from naive realism, the research process is theory-driven: this is called deductive research project and consists of theory testing (Järvensivu & Törnroos 2009, 101). The other endpoint is the opposite, empirically-driven inductive research project, and consists of theory generation. In this continuum, moderate constructionism is a mixture of deductive and inductive processes, being called an abductive process (Järvensivu & Törnroos 2009, 101).

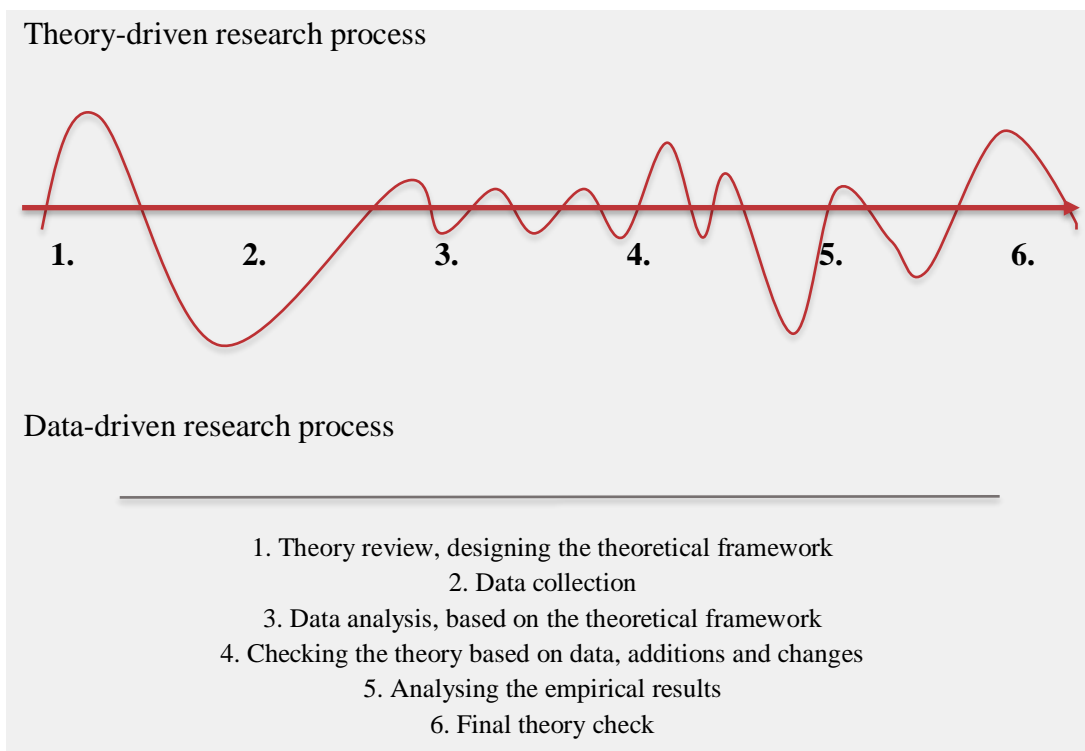


Figure 4. Illustration of the abductive research process in this study

Unlike induction, abduction accepts using existing theories which might strengthen the theoretical ground of an abductive research (Järvensivu & Törnroos 2009, 102). It also accepts data-driven theory generation by allowing a less theory-driven research processes than deduction (Järvensivu & Törnroos 2009, 102). One's research process may vary from leaning more on the deductive or inductive side, but in general it is classified as an abductive research process. The abductive process itself does not have to be clearly structured, and during a single research process it might vary a lot in between theory testing and theory generation (Järvensivu & Törnroos 2009, 103). The abductive process of this research was illustrated in Figure 4.

3.2 Research strategy

This research was carried out with a qualitative approach which intends to create understanding on the topic under research. Collecting the primary data begun by observing, which was accomplished by participating two industry events in Luxembourg and London. To discuss and build further understanding after the observation process, I interviewed five industry professionals from four different countries by using semi-structured interview method. Additionally, secondary data was collected in the form of publicly available data, such as reports and releases in robo advice. This chapter describes further the research methodologies used, and how the data was generated and analysed.

3.2.1 Qualitative methodology

Qualitative research is a pertinent strategy for this research as the aim is to explore and generate understanding on a phenomenon that is difficult or impossible to characterise with quantitative techniques (Koskinen, Alasuutari & Peltonen 2005, 15). The area of digital investment management services is not yet well known in the academic research which supports the intention to generate understanding around the phenomenon. On the other hand, it could be difficult at this stage to conduct a quantitative research, as the consumer usage and knowledge of digital investment services is still relatively low, and the academic research lacks general understanding over the concept.

Interviewing and observation methods are one of the main classifications of a qualitative approach (Koskinen et al. 2005, 45, 157). Observation method allows the researcher to access a natural environment of the subject, and it is a good method for removing the artificial aspects of a certain situation that, for example, an interview situation can cause (Saldaña 2011, 46). Therefore, it can be considered as researching a *real world* and a *real life*. However, the method can also be criticised that a researcher taking part in these real-life situations can cause a disturb in the natural course of events (Saldaña 2011, 49). In this research that dilemma was not relevant as the observation was implemented by participating in relevant seminars as a part of the audience, without the speakers being aware of the researcher's existence among the crowd.

There are multiple different styles of implementing observation, and these styles can be placed into a continuum where the other end is passive, "fly on the wall" participation, and the other end is active participation where the researcher participates completely the actions of the community, culture or situation under observation (Saldaña 2011, 48). In this research, the observation was conducted with the passive method, as mentioned, the researcher being among the audience in a conference.

Observation is considered as a challenging method due to the multidimensionality of the observation situation and rendering differences. As the only dimension of observation in this study was the content of the discourses, instead of interpreting underlying meanings such as behaviour, I was able to overcome these methodological challenges.

Due to the objective of creating understanding around a fairly unknown area, for the interviews I decided to utilise the method of semi-structured interview. This choice was also advocated by the fact that I already have experience on accomplishing semi-structured interviews from the time I was writing my bachelor's thesis. In the semi-structured interview method, also called a guided interview method, only parts of the themes of an interview are fixed (Hirsjärvi & Hurme 2011, 47).

By only fixing the themes, the structure of an interview can fluctuate according to the interview informant's answers, but the interview is still limited into a certain, pre-defined frame to be sure to achieve the goals set for the interview. To conclude, this method allows the interview informant also to bring up those topics and ideas that the researcher did not consider but which can be relevant from the research point of view. A semi-structured interview method does not require setting the interview questions in advance, but it gives the researcher the possibility to adjust questions as the interview proceeds (Hirsjärvi & Hurme 2011, 48).

3.2.2 Data generation

Observation in events

Before going to the primary source of empirical data collection, interviewing, I wanted to gain more knowledge on the topic by participating and observing industry conferences. The reason for doing the observation first was twofold. First, of course the intention was to collect data for the research, but second, observation helped in further expanding my understanding around the issue and therefore enabled me to design more relevant and suitable guide for the interviews, and also react more promptly by asking additional questions during the interviews. Additionally, I was able to network during the events which helped later when mapping and contacting the prospective interview participants.

For observation purposes, I participated the *Robo Advisors and Digital Investments* conference in Luxembourg arranged by The Luxembourg Bankers' Association on December 7th, 2016 and the *Robo-Investing Europe 2017* seminar in London organised by Wealthtrack Limited on February 1st, 2017. The conference in Luxembourg was only available for invited parties with about 100 participants, whereas the event in London was open for everyone with a ticket and had approximately 500 participants.

During these seminars, I observed and made notes on the presentations and panel discussions. The speakers and panellists were senior executives from financial start-ups such as robo advisors, senior executives of multinational banks, and senior-level

specialists in financial technology. These particular seminars were selected for observation as the topics were a good match with this study, and schedule and location-wise I had the possibility to attend.

Semi-structured interviews

In a qualitative research, participants are selected by their availability and suitability for the research (Eriksson & Kovalainen 2008, 51). In this study, the interview informants were recruited utilising researcher's own professional network, first by analysing their background and career in the financial industry, and especially their experience in building digital services within the industry. Therefore, the emphasis on the selection was their professional career and experience, whereas geographical location, age, and gender were not seen as relevant metrics.

I did not do any specification about the role or position of the informants, such as whether they should be CXOs or consultants, or whether they are representing start-ups or established companies. What I did require was a proven track record of working with building digital investment management services. In practice this meant that the interview informants are currently or have been working recently with robo advisors on a strategic level and at least for couple of years. After collecting a group of potential interview informants, I contacted each of them personally, out of which interviews were agreed with those who indicated being available for the research. The informants are introduced briefly in Table 2.

Interview themes were planned to allow a rich discussion around the topic but also to reach the research objective by getting comprehensive answers to the research questions set. Generating themes and questions for the semi-structured interview was a three-step process. First, I followed the theoretical framework and theoretical groundings of this thesis. Second, during the autumn 2016 and spring 2017 I participated two robo advice themed seminars to gain overall, practice-level understanding on the phenomenon. Finally, I combined these perspectives also with the expertise I have gained through working in the financial technology industry for the past two years.

Table 2. Introduction to interview informants

Name	Current position	Background	Nationality
Ahrner, Ulf	Founding partner, CEO at Primepilot AB (Swedish robo advisor)	Ahrner has a wide experience in the financial industry working in back office, trading, IT, and business development. Before establishing Primepilot AB, he was the Managing Partner and Head of Investments at Delphi Kapital Investment Advisors.	Swedish
Bussy, Simon	Domain Director, Wealth at Altus Ltd (consultancy services and technological solutions in the financial services sector)	Bussy has been working in the financial services industry for almost 30 years in the areas of business development, strategy and marketing management.	British
Nordin, Richard	Head of Sales at FA Solutions (software and consultancy for investment managers)	Nordin has worked in finance and IT for 20 years, and during the last couple of years he has been involved in building technical solutions for the major Nordic robo advisors.	Swedish
Ruotsila, Ilkka	Regional Director Nordic and Baltic at Deposit Solutions GmbH; Investor, Advisor, Business Angel, Venture Capitalist in various companies	Ruotsila is a strong digitalisation professional in the financial industry. His experience includes leading positions in international corporations (e.g. Accenture, Nordea), as well as being a business angel and a venture capitalist for a variety of growth and start-up companies.	Finnish
Sironi, Paolo	FinTech Thought Leader at IBM Watson Financial Services	Sironi was the managing partner in a financial technology company before it was acquired by IBM Watson. He is also a bestselling author, hosts classes and seminars at academic institutions, and keynotes at international conferences.	Italian

The goal was to construct the interview themes in a way to be able to catch all the relevant viewpoints of the phenomenon, but without asking too specific questions which would restrict or control the interview or the answers too much. Eriksson and Kovalainen (2008, 82) also highlighted that in a semi-structured interview process researchers should not follow too strict guidelines as it might prevent interview informants making visible other significant matters than those proved in the interview guide. Therefore, I wanted the interview informants to describe the phenomenon as they see it without restricting their thinking too much by bringing my own or others' opinions or beliefs into the context.

This resulted in interview informants bringing up also totally new dimensions and viewpoints to the phenomenon that I as a researcher could not have considered without. As a conclusion, how to answer and what to answer was in control of the individual informant. This of course caused that an interview informant might consider a theme slightly from a different viewpoint than the others. However, in this case it was not a problem, as the intention of this study is to form understanding on a context-specific phenomenon instead of revealing generalizable truths.

The final interview guide was based on this previously described three-step process, and it included eight themes with some assisting open questions. The interview guide was employed in a flexible manner that enabled me as an interviewer to react during an interview, such as reorder themes or ask additional questions before, during or after an interview.

Interviews were conducted during March and April 2017, out of which two were Skype calls, two regular phone calls, and one was a face-to-face meeting. The length of interviews varied from 40 minutes to 70 minutes. Four of the interviews were conducted in English and one of the interviews was in Finnish. Therefore, four of the interviews were also analysed and transcribed in English, whereas the one in Finnish was first transcribed and analysed in Finnish and after that translated into English as accurately as possible. The citations used later in this report are otherwise verbatim but in some cases I have removed unnecessary, repetitive or corrected wordings after analysing carefully that the removal of those diffused words does not affect the tone nor the content of the citation.

The first interview with Nordin was a pilot interview testing the suitability of the interview guide, with the possibility of the interview being rejected if the guide would appear as inappropriate for the research objectives. However, only some minor adjustments had to be done, and the final outcome of the pilot interview was also seen as suitable to serve the purpose of this study. As the outcome of the pilot interview and the

main interviews were serving similarly the objectives of the research, they were also analysed and utilised in the same way.

All the interviews were recorded and I was also simultaneously writing notes including keywords and key findings. After that, every interview was transcribed and analysed tentatively as soon as possible after the interview to gain an overview of the interview. Koskinen et al. (2005, 320) provided a classification of transcription styles from which level two refers to picking up the essential themes that are relevant for the research, and those relevant themes might then be transcribed even word for word. I used this method to optimise the laborious, manual process of transcribing, and it was relevant as at times interview informants might wander into another topic which was of course interesting but not that relevant from the viewpoint of this research. The process of data generation for the study is summarised in Figure 5.

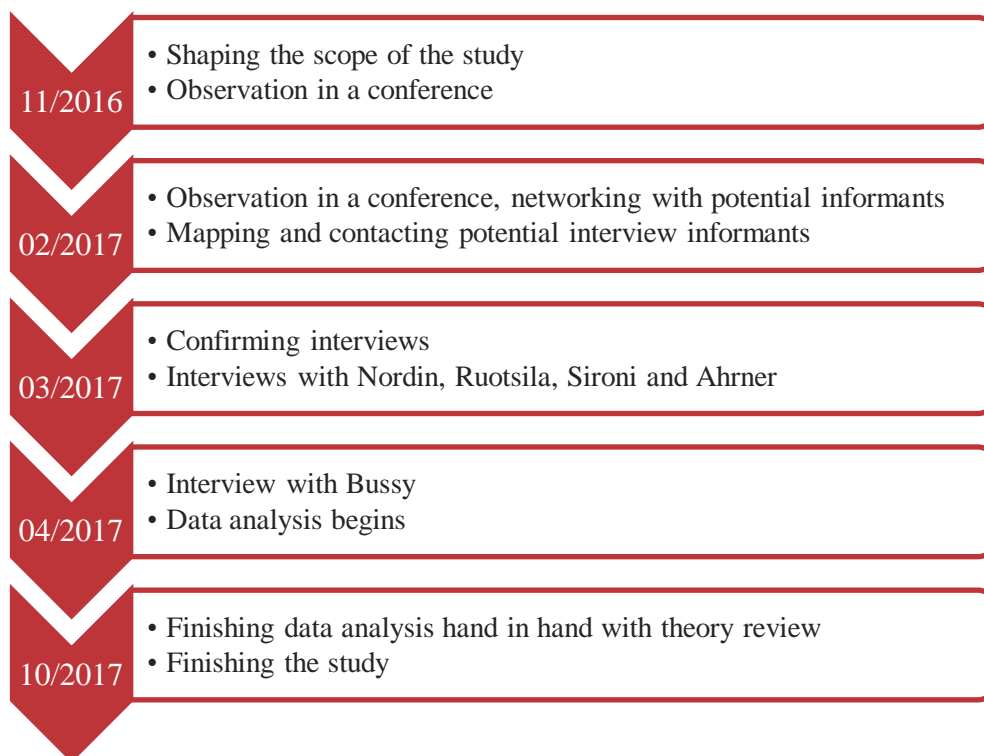


Figure 5. The process and schedule of data generation

The number of interviews was guided by achieving a saturation point in which the researcher feels that an appropriate amount of information is collected and the content of interviews is starting to repeat itself. In this case, all the interview informants had slightly different professional background and were influencing in different geographical locations, so obviously, there was some minor divergent market or position specific viewpoints, but on the general level with major interview topics the saturation point was achieved as required.

3.2.3 Data analysis

As suggested by Koskinen et al. (2005, 231), before starting the analysis, I was reading through the collected data for couple of times. After this the material was divided into scattered pieces, and then I worked with the pieces to identify specific concepts and classifications and reflected these into the theoretical background of the study. Next, the pieces were collected into these newly constructed themes and concepts, shaping the content of the fourth and the fifth chapter of the thesis. This three-step process is also suggested by Hirsjärvi & Hurme (2011, 145) for analysing qualitative research material.

In Table 3 I provide examples of the data analysis, which origin from the interviews but describe well the analysis process also with other data, such as observation in events. After going through the collected material couple of times, it was divided into scattered pieces, analysed and interpreted, and grouped accordingly.

Table 3. Example of the data analysis process

Raw Data	Interpretation	Grouping
<p><i>"The whole concept of investing is that it's a long-term play, and the key selling point of robo advisors and what they are trying to achieve. They [robo advisors] are increasingly goals-based, which means that the customer is investing his money for an x period of time to achieve a particular goal. – – The key is that the customer sticks with that journey and does not panic and change, to achieve those goals. And that's the whole premise of what robo advisor is about to do. It isn't about short-term money but to help investors to achieve their long-term goals."</i></p>	<p>Just as in traditional investment management, also digital investment management should be long-term and goals-based.</p>	<p>Chapter 4.3 The role and form of loyalty in a robo advice context</p>
<p><i>"Advice-only robos will not survive because they do not give enough value to customers and do not engage. Someone may check maybe once a year [the advice-only service] but discretionary asset management engages, you want to follow your investments as your money is in there."</i></p>	<p>Digital investment management service, that acts with the money based on the advice, is more engaging than an advice-only service.</p>	<p>Chapter 4.3 The role and form of loyalty in a robo advice context</p>

4 BUILDING A TRUSTWORTHY ROBO ADVISOR

4.1 Reasons for choosing a robo advisor over a traditional advisor

To be able to understand how to build a successful robo advisor, companies need to understand the underlying reasons and contexts why their customers choose to use the digital service instead of a traditional advisor. The selection between online or offline service channel depends for example on individual settings, such as customer's expertise in Internet usage (Montoya-Weiss et al. 2003), complexity of the service, and the individual need for interaction (Fernández-Sabiote & Román 2016). Furthermore, consumers in digital channels are usually seeking for rational and functional benefits (Fernández-Sabiote & Román 2016), but previous research has shown that also emotional and psychological benefits can be experienced (Colgate et al. 2005, Ko et al. 2005, Su et al. 2009, Klaus 2013).

To form an understanding on the reasons behind the channel selection in the setting of this study, the topic was included in the interview guide. This chapter introduces you what are the reasons advocating the selection of a digital service, and on the contrary, which reasons make customers want to choose the traditional option of meeting an advisor face-to-face.

4.1.1 Encouraging attributions of robo advice

“A lot of people don't like investing. They just want someone to do it for them. If it's easy, they will choose your service. If it's complicated and messy and includes a lot of scary curves few people understand, they will not.” (Ahrner 2017)

According to the interviews, the main reasons for choosing a digital advisor over a traditional advisor were easiness, lower costs and neutrality of the advice. Easiness was described as convenience and accessibility, investment advice being not dependent on location nor timing. Easiness can be included in rational and functional benefits of digital

services, and are in line with the previous research on channel selection by Fernández-Sabiote and Román (2016, 424).

Robo advisors are also considered being more neutral than human advisors on giving investment advice. Human advisors might be motivated in their own interests instead of customer's needs, and due to human nature, the advice given might also be inconsistent. These aspects were also discussed and supported by Carré, James and Witz (2016) ("transparency") in their keynote presentation in The Luxembourg Bankers' Association event *Robo-Advisors and Digital Investments*. Neutrality of the advice could be considered as an industry-specific factor, but nevertheless can be included in the category of psychological benefits by comforting and reducing anxiety of the customer, as described by Colgate et al. (2005, 427): In the context of robo advisors, the interests of the human advisor and the customer are not conflicting.

Furthermore, people have started to realise the relatively high costs in traditional investment advice, as technology-based investment advice and investment management introduce a totally new budget solution in the industry. Robo advisors unfold the possibility for individuals in lower income classes to access similar investment management services that have previously been available only for those who had enough wealth to be a client of a traditional advisor. These both viewpoints were also supported by Carré et al. (2016) ("cost advantage", "Private Banking for the masses"). Lower costs can also be included in the rational and functional benefits, and are in line with the previous research on channel selection by Fernández-Sabiote and Román (2016, 424).

"It's quick, it's a good experience, it's consistent, it's obviously low-cost, it [the robo advisor] is understanding the clients, their risk profile, capacity of taking risk, and giving them a solution for long term. That should result hypothetically in a better outcome than having cash or paying for an [human] advisor." (Bussy 2017)

Carré et al. (2016) also highlighted client centricity as one of the factors that differentiate robo advisors from traditional advisors. This was justified with personalised and customisable service approach (such as goal-based investing) and the independency of

robo advisors, as they usually do not have their own in-house products which they would be pushing to sell to customers. These remarks correspond with the research of Rust and Miu (2006) suggesting that highly personalised and customer-centric services are increasingly effortless to implement in digital environment.

Additionally, the interview informants also recognised a larger wave of changing customer behaviour. Nowadays customers are more used in digital services and demand for them. Furthermore, customers' expectations are not bounded by industry. If they are used to easily book a ride via Uber or an accommodation via Airbnb, they expect to get their investing done just as easily. Ruotsila (2017) calls this phenomenon as "liquid expectations", where customer expectations are flowing over industry boundaries.

4.1.2 Disadvantageous attributions of robo advice

Obviously not everyone wants to adapt into using digital investment management services. Bussy (2017) describes the problem behind the concept of robo advice that people actually like meeting and discussing with other people and building personal relationships. This refers to Montoya-Weiss et al. (2003) research of customer's individual need for interaction. Also Ruotsila (2017) sees the importance of face-to-face interactions when people are investing their assets: For some it is important to meet, discuss, and map their individual situation, as investing might be considered as a highly complex task. As suggested by Fernández-Sabiote and Román (2016), greater complexity means increased likelihood for choosing a traditional face-to-face service channel instead of a digital service.

Nordin (2017) continues, that maybe people are not yet so confident with new technological solutions, and are afraid of technology misuses and malfunctions. Ahrner agrees with Nordin and is positive that this is just a transitory phase:

"It's like any other business. In the beginning, a lot of people were sceptical about booking plane tickets and hotels online instead of going to a travel agency. Would there really be a hotel there for me when I arrive, or will I have to sleep in the streets? But that was just in the beginning. When people had tried it, and gotten used to it, the worries

went away. In the same way, we will get to the point where we are like any other business.”

Therefore, over time we will get to see if the attitudes of people are changing also in the digital investment management scenery, which could be especially true when the wealth within families is starting to transform from the old to the new, technology-savvy generation. According to Carré et al. (2016), 47% of High Net Worth Individuals under 45 years old who are not yet using robo advice services would consider using them in the future.

4.1.3 Different customer segments and their expectations

Each of the informants notified that there are different user segments with different needs and expectations towards digital investment management services. For example, in general one could justify significant differences between Millennials and Baby Boomers, however, Sironi particularly stressed that rather than classifying customers by their age, they should be classified by their *technoliteracy* and understanding of the financial market. Based on the interviews I identified four clearly different use cases that are divided below as four customer segments with different expectations for the service.

The group of **delegators** is seeking for an easy solution, outsourcing their investing to someone else. They might not have the confidence of taking care of their assets by themselves, and it might also feel a bit distressing for them – *they just want to get it done*, as Ahrner put it. Carré et al. (2016) agreed with this (the group of “fully-delegated”) and in this segment compared robo advisors to traditional asset and wealth managers. The advisor is taking care of the customer’s investments so that they can focus on other things. Obviously, this group would choose a robo advisor instead of a traditional human advisor due to easiness, availability, neutrality, and lower costs.

There is also a group of **optimisers**, who want to find the best and the most efficient solution. This could be finding a simpler or a cheaper way to invest, or both. These customers might want to outsource everything or just some parts of their investing, and also decentralise investments for different service providers. Typically, these customers

have wider understanding about the financial industry and maybe also more assets to invest than the group of delegators. Carré et al. (2016) compared this segment to the customers of traditional financial advisors, where the advisor and the customer work in cooperation for finding the best solutions and making investment decisions.

The third group is the **Do-It-Yourself** (DIY) group consisting of self-directed individuals. They are seeking for advice and opinions to base their investment decisions on, rather than searching for a solution that takes care of their wealth or does the decisions for them. Additionally, with the help of a robo advisor, they might be able to do things that they would not be able to do with a personal advisor. Carré et al. (2016) were comparing this segment as the individual investors who traditionally trade directly with a traditional broker, taking care of their investments decisions individually without an advisor or an asset manager in between.

“For a DIY person, maybe robo advice makes them feel that they have done it by themselves. – – This type of a customer might use a robo advisor, as an example, for investing into growth equities in USA, which would otherwise be really cumbersome.” (Ruotsila 2017)

Furthermore, what is trending especially among start-up robo advisors is to offer their services for other service providers in the financial industry, forming a **B2B2C** customer segment. Background for this is that start-up robo advisors have noticed how difficult it is to convince individuals to invest their assets via these newly established services, without having the brand equity and the customer base that the established players have (Garcia et al. 2017). This has led start-up robo advisors to think alternative ways of customer acquisition, and quite many have started offering white-label services for established banks and asset managers, and pension saving solutions for corporations (Bussy 2017). Robo advisors are of course attracted by the masses of customers reachable through these established players, and for the other counterpart, choosing white-labelling is an effortless turnkey solution.

Interestingly, Carré et al. (2016) also suggested an idea of a robo advisor being just a tool assisting the traditional advisor. For the end customer, there would still be a financial advisor and it would be a face-to-face situation (or why not even a phone call or a chat), but the robo advisor is assisting the advisor and maybe is not even visible for the end customer. This way maybe the advisor could be able to offer financial advice and asset management services without heavy back office functions, if the robo advisor is set for assisting with and taking care of documentation, reporting, portfolio rebalancing, trading, and so forth.

Despite these different customer segments, the technology behind a robo advisor should be able to serve a variety of different customers with different needs and expectations. This is the backbone of the business. What then could or should be segmented are the user experience, languages, marketing, and brands also to some extent.

“You can, after having functional technology solution behind your service, create a couple of different user interfaces or brands for different customer segments.” (Ruotsila 2017)

“Marketing targeted, engagement targeted, different languages, but the robo itself need to be able to serve a broad audience. – – The robo should be open [for everyone], but it should have different goals for different needs.” (Sironi 2017)

“The robo advisor should have different strategies for different wealth and age groups.” (Bussy 2017)

To conclude this chapter, the main reasons for choosing a digital advisor over a traditional advisor were easiness, lower costs, and neutrality of the advice. The discouraging factors are a lack of trust, poor self-confidence of the customer, and the customer’s individual need for interaction. These themes were also discussed in the light of earlier academic services research on customers’ online service adoption. Originating from the interviews, four major customer segments with different expectations and needs was defined. These customer segments are delegators, optimisers, DIY customers, and the slightly different fourth segment of B2B2C customers, referring to a robo advisor that delivers services via other service providers (B2B) to individuals (B2C).

4.2 Characteristics of a trustworthy robo advisor

“The issue is not about automated investment management. It is about how you get a million people to trust you with their money.” (Osterland 2015)

In a **broader** picture, a change in customer’s behaviour can be recognised, as people are getting increasingly comfortable with digital and mobile services. Ruotsila (2017) mentioned that maybe to some extent especially in the retail investor sector the significance of trust may decrease as the usage of social media and other digital platforms could encourage individuals to act more freely on the Internet. Nordin saw that the role of trust might be lower with those services that are only providing advice, but the importance increases if the service actually acts on one’s money by investing it rather than only giving advice on how to invest the money.

These viewpoints are interestingly differentiating from the previous research, where the important role of trust was not questioned in a traditional investment management setting (Crosby et al. 1990, Mayer et al. 1995, Sunikka et al. 2009) nor in digital services in general (Fukuyama 1995, Baker 1999, Hoffman et al. 1999a, Hoffman et al. 1999b, Reichheld & Schefter 2000, Schoder & Yin 2000, Urban et al. 2000, Lee & Turban 2001, Stewart 2003). On a macroeconomic level, crises in the financial industry are going to strengthen the trust towards robo advisors developed by big banks, as Ruotsila put it, and on the contrary, Ahrner sees that banking crises will benefit the credibility of start-up robo advisors.

4.2.1 Service quality dimensions

Kassim and Abdullah (2010) adapted SERVQUAL core dimensions into the digital age, and suggested those dimensions being ease of use, website design, responsiveness, personalisation or customisation, and assurance (incl. privacy and security). Yousefi and Nasiripour (2015) in turn researched models of trust in e-banking services and introduced

four hypothetical quality dimensions for e-banking, which are ease of use, usefulness, perceived privacy, and perceived security.

I did not want to include these service quality factors suggested by earlier studies directly in the interview guide to avoid restricting the interview informants' answers too much. Therefore, I relied on informants explaining quality dimensions as they see them and in their own words and terms. Interestingly, as a result of the interviews, these quality dimensions highlighted in previous research were not at least directly supported. Major quality dimensions found from the data of this study are technology, user experience, offering, and existing customer base. Minor quality dimensions recognised are operating licenses granted by authorities, content, and geographical location. These quality dimensions are explained further below, their linkage to the previous research is discussed, and as a conclusion the dimensions are summarised in Figure 6.

Technology

What was of especial importance for all the interview informants was the functionality of the technology behind a robo advisor: A critical hygiene factor for gaining the trust of a customer and therefore acquiring any customers is well-functioning technology. Customer should not face any errors nor bugs in the service interface to be able to trust it (Nordin 2017, Ruotsila 2017). Thus, providing pioneering technological solutions can also be a way to differentiate in the competitive environment either via unique offering or efficiency through lower operating costs: a robo advisor can differentiate by offering their clients for example an advanced rebalancing functionality (Ruotsila 2017).

“Technology for automatically rebalancing possible losses or income is good for goal-based investing. Pioneering technology as a competitive edge disrupts already for example pension portfolio management.” (Ruotsila 2017)

In the digital SERVQUAL core dimensions (Gummerus et al. 2004, Ribbink et al. 2004), I would suggest this aspect being included to the dimension of *website design*. This is of critical importance by having a direct effect on the user experience (Kassim & Abdullah 2010) and the trustworthiness of the service (Luo et al. 2006).

User experience

Critical in traditional investment management is the face-to-face meeting with the financial advisor or the asset manager (Crosby et al. 1990, Mayer et al. 1995, Sunikka et al. 2009), whereas in digital environment this is replaced with a customer interacting with the user interface of the service (Zeithaml et al. 2000, Balasubramanian et al. 2003). Therefore, one of the cornerstones of building a robo advisor is building the user interface and designing the user experience.

User interface as a hygiene factor was mentioned by all interview informants. They described that it should be easy to use and easy to understand without any jargon or technological language, *“it should not look complicated and scary”* (Ahrner 2017). The user experience or *user journey*, as defined by Bussy, needs to allow customers to *“get things done”* (Ahrner 2017), and be transparent by clearly and understandably articulating what customers get and what they are paying for (Ahrner 2017, Bussy 2017, Ruotsila 2017). The user experience dimension is directly related to the ease of use and website design dimensions in digital SERVQUAL (Reibstein 2002, Gummerus et al. 2004, Luo et al. 2006, Kassim & Abdullah 2010) and the ease of use in e-banking quality dimensions (Yousefi & Naisiripour 2015).

Customers should also be informed what happens in case they need assistance – *“do they need to go through 200 pages of self-help or can they just chat with someone”* (Ahrner 2017). This relates directly to the responsiveness dimension (Zeithaml et al. 2002) of digital SERVQUAL (Gummerus et al. 2004, Ribbink et al. 2004, Kassim & Abdullah 2010) by letting the customers know how they can be assisted when needed. Of importance is also that the user experience is able to build a relationship and interact with customers, helps them to address their financial problems, needs and goals, and furthermore, engage (Ahrner 2017, Bussy 2017).

The possibilities for differentiation would be to offer a better interface and experience than others are offering. Ruotsila exemplified this by transforming the user experience into an educational journey. This would generate real discussions with the customer, and

engage them to learn more about investing and the financial industry or other causes they care about, such as how their investments facilitate sustainability. Differentiation can also mean offering customers better customer service (Ahrner 2017), and offering not only digital experience but a superior omni-channel experience by combining digital, personal and physical elements.

Offering

Offering-wise there can also be several hygiene factors and differentiators identified. All interview informants agreed that the robo advisor should be able to offer its service on a relatively low cost level. As robo advisors usually do, as a hygiene factor they should offer at least investing in exchange-traded funds (ETFs). Mentioned by Bussy (2017), an important hygiene factor at least in the UK market is that the robo advisor can offer an Individual Savings Account (ISA), which enables tax savings for long-time investing.

In this quality dimension, robo advisors can differentiate by expanding their investment product offering beyond ETFs, “*expand their investment universe*” (Ruotsila 2017). They could also expand into offering also other tools for individual’s personal financial management, such as spending analysis, budgeting, credit monitoring, etc.

It is critical that the robo advisor has a suitable product portfolio in its offering, from where it can form a suitable and appropriate offer for an individual customer. This quality dimension matches well with the digital SERVQUAL dimension *personalisation or customisation*, introduced by Zeithaml et al. (2002). Offering can be directly linked into the sub-dimensions of personalisation: personal attention, preferences, understanding the specific needs of an individual customer, and information regarding the product modification.

Existing customer base

Maybe a bit trickier hygiene factor, at least in the beginning of a newly established robo advisor, is the requirement for having an existing customer base. No one wants to be the first or the only customer. According to the interviews, to gain the trust of an individual, the service should already have a critical mass of users who trust the service (Bussy 2017,

Nordin 2017). Furthermore, that of course needs to be somehow communicated, for example by showing references and recommendations through the user interface or encouraging existing customers to recommend the service for their contacts (Nordin 2017).

This kind of a service quality dimension was not considered in the theory review of this research, so in that sense this was a slightly surprising factor. However, in the setting of this study, this definitely seems to be of importance for robo advisors.

Other identified factors

As much as regulation can be a burden, operating licenses granted by authorities can also be a source of trust. Similar results were also identified by Sunikka et al. (2009) by suggesting that trust towards investment management service providers emerges also from trust towards the protective structures in the financial market, such as legislation, regulation, and contracts. Therefore, simply by having an authority-licensed, regulated robo advisor, and communicating that to your customers, can create a feeling of reliability within your customers (Bussy 2017, Nordin 2017).

Content-wise, robo advisors can communicate and create trust by providing or appearing in different kind of listings, comparisons, recommendations, blogs, reviews, and online magazines (Ahrner 2017). This is also supported by earlier research: Consumers are increasingly treating online reviews as an important information source facilitating their purchase decisions (Zhang et al. 2014, 78). Based on their research, Smith, Menon and Sivakumar (2005) suggest that consumers are using the mere availability of recommendations as a decision-making heuristic, and that consumers favour editorial and peer recommendations over other types of effort-reducing leads that might be available for decision-making.

Furthermore, robo advisors can also create interesting content to provide to their customers, such as educational videos and research results (Ruotsila 2017). This can be classified under digital SERVQUAL dimension of website design, more precisely the website content (Kassim & Abdullah 2010).

Even though the nature of robo advice business is digital and in that sense not depending on one's geographical location, robo advisors are still very often bounded to a specific region or economy for language and regulatory reasons (Nordin 2017, Ruotsila 2017, Sironi 2017), but it can also be an advantage by creating customers a feeling that *their advisor is closer* (Sironi 2017).

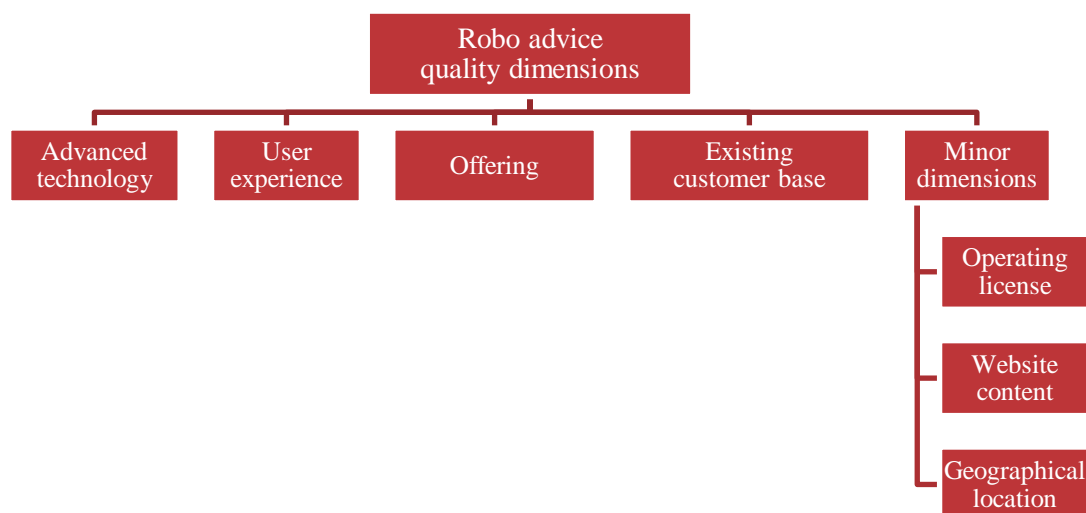


Figure 6. Quality dimensions in digital investment management services

Referring to the digital SERVQUAL (Gummerus et al. 2004, Ribbink et al. 2004, Kassim & Abdullah 2010) and e-banking quality dimensions (Yousefi & Naisiripour 2015), in the theory overview of this study I believed privacy and security issues being of an especial importance in the context of digital investment management. Surprisingly, these were not mentioned in any of the interviews. Considering this, it might be that security and privacy issues are so self-evident, underlying assumptions in the industry that they are not even mentioned, and on the other hand these issues are reflected through other dimensions such as having an existing customer base and an operating license from an authority – which a robo advisor would not probably have if it had serious security or privacy issues.

4.2.2 The importance of branding

The branding aspect was not identified and discussed that much in the theory overview, however, it was strongly emphasized by interview informants as giving a major contribution in building a sense of trustworthiness. Each of the interview informants stressed the importance of a strong, recognizable brand and extensive visibility in both, organic and paid channels.

“A good brand creates relationships. Strong, strong feelings, and a sense that it takes care of me.” (Ahrner 2017)

“It is the brands that can move customers.” (Sironi 2017)

To some extent, an exceptionally good investment advice or service offering, user experience, and organic visibility through gaining media coverage in newspapers, magazines and blogs can help in brand building (Nordin 2017, Ahrner 2017). Unfortunately, in an environment where companies need to increasingly fight over consumers' attention, that is not enough. Branding can be highly difficult and expensive, especially for start-up players.

“Brand is highly relevant, and a lot of money needs to be spent in branding. People won't trust you without that and without extensive marketing.” (Sironi 2017)

“There is less trust towards start-ups that are not recognized. It's really difficult because building a brand costs a lot of money, and because of that getting a single customer can cost them 300 pounds on average. It takes a lot of time to pay back and this is a real challenge with the commercial model of robo advisors.” (Bussy 2017)

What all the interview informants agreed was that banks and other established players in the finance industry seemed to have the strongest brand assets in the robo advice field, especially when their reputation was *good* (e.g. no significant crises nor negative publicity in the recent history). This is simply because they already have a recognised brand, established presence in the market, and existing customer base, which were seen to be

important elements in trust building. The most favourable this option seems to be for the aging customer group of robo advisors (Bussy 2017).

However, referring to a panel discussion during the Robo-Investing Europe 2017 conference (Garcia et al. 2017), “*millennials don’t trust bigger banks, and they don’t know where to go with their money*”. Nordin had his doubt, too, by stating that “*maybe consumers don’t trust banks and independent financial advisors that much anymore*”. This kind of statements are also backed by academic research: Hurley, Gong and Waqar (2014) analysed customers’ trust towards banks by drawing data from case studies, investigations made public, and general news reports of banking behaviour. The findings state that trust in banks has declined significantly over time and that banking is currently one of the least trusted industries.

In addition to start-up robo advisors, this gap could be filled by an emerging group of challengers recognised by all the informants: global media and technology brands, such as Google, Facebook and Amazon. This is of particular interest due to their ability to reach almost everyone owning a smartphone, and as they are especially popular among millennials (Bussy 2017). According to Sironi (2017), this is the biggest threat to traditional players. In Asia, WeChat and Alibaba have already successfully published their own digital investment management services.

“Media brands are capable to gain a lot of audience. They are not a bank but still, they know how to discuss with their customers. When they [media brands] manage payments, they can quickly move to robo advice.” (Sironi 2017)

Ahrner did not see this as such a significant or probable occurrence, as the investment management is totally different from these corporations’ core businesses:

“Finance is very different from search engines, why should they take care of my money? People are really, really afraid when it comes to money. I mean, if Facebook would be making sofas, who would want to buy it because it is a Facebook sofa? Media companies can establish totally different brands [apart their core business] but why would they

do that? Google has a lot of money, they could do it, but they would build it under a different brand. It would be different but they can build the brand cheaply. The same would be with Facebook, it would be something completely different but they would be advertising it through Facebook, because that would be cheap.

Then also, why would you want to do that? I mean, sure, Google has self-driving cars and whatever, but that's because their founders think that self-driving cars are cool. It's not because it's an important business area for them. And this [robo advice] is even less so, so I don't know why people speculate with that. I don't see why that would be interesting. Of course, this is totally different from payments, millions of people do not have functioning payment system where Google Payments or Facebook Payments are needed. But that is totally different area. We already have functional banks, we don't need a Google Bank to have a bank, that's the difference. So, payment functions for sure, robo advisors no.” (Ahrner 2017)

Additionally, what was interesting to notice was Bussy (2017) mentioning that the characteristics of brands in the financial industry are changing, by stating that *the characteristics of retail brands are coming to the financial industry*. The way how financial organisations talk to their clients is changing, when listing cold, hard and numeric facts is transforming towards soft values, emotions and feelings. Maybe brands in financial services have not been able to previously implement customer-centricity in their communications.

4.2.3 Not digital only, but digital first

“In every digital business, you need to remember that it's not digital only – it's digital first.” (Garcia et al. 2017)

All the interview informants stated the importance of making visible the people behind their business. Customers need to know that someone is there for them if they need assistance, and they also want to be *“exactly sure who manages their money and how”* (Sironi 2017). In the beginning, it is especially urgent to invest into a call centre or a chat functionality (Ruotsila 2017). This relates directly to the responsiveness dimension

(Zeithaml et al. 2002) of digital SERVQUAL (Gummerus et al. 2004, Ribbink et al. 2004, Kassim & Abdullah 2010).

Bussy (2017) suggested also a hybrid service model instead of an online-only or offline-only model. For a robo advisor this model would mean that customers can progress in parts digitally, but have the possibility for a chat, a phone call, a video call or a meeting. This offers more options to the customer and might help in building trust and customer relationships, but it also increases the costs of the service. This kind of service model could also attract customers with higher needs of human interaction (Fernández-Sabiote & Román 2016).

“I’d say robo advisors should combine smart people and smart technology.” (Bussy 2017)

Having a service infrastructure behind the digital offering can also bring additional sales. According to Ruotsila, a robo advisor can act as *a bait* for customer acquisition, allowing these clients to transfer from the digital service to a face-to-face advisor. Also in the segment of High Net Worth Individuals, having personal, face-to-face service is crucial, and having personnel available for those purposes can generate new, profitable business for robo advisors as well (Ruotsila 2017).

In addition, it is not only about having a customer support, but also who owns or runs the business:

“Reputation of the owner is important. Like me, I’m not talking to the CEO of my bank but I do know who he is.” (Sironi 2017)

“If it’s a new company this is important. People care less if it’s a company with thousand employees, because there are thousand employees running it. A new company with ten employees, who is the owner, that’s really interesting. Sure, it needs to be visible so people can see who is behind it.” (Ahrner 2017)

“If the Chairman of the Board or the CEO is someone you trust to, that will lower the threshold. And vice versa, of course.” (Nordin 2017)

This chapter has identified and discussed the elements of a trustworthy robo advisor based on the expert opinions collected for the study. Three main elements were identified and those are visualised below in Figure 7.

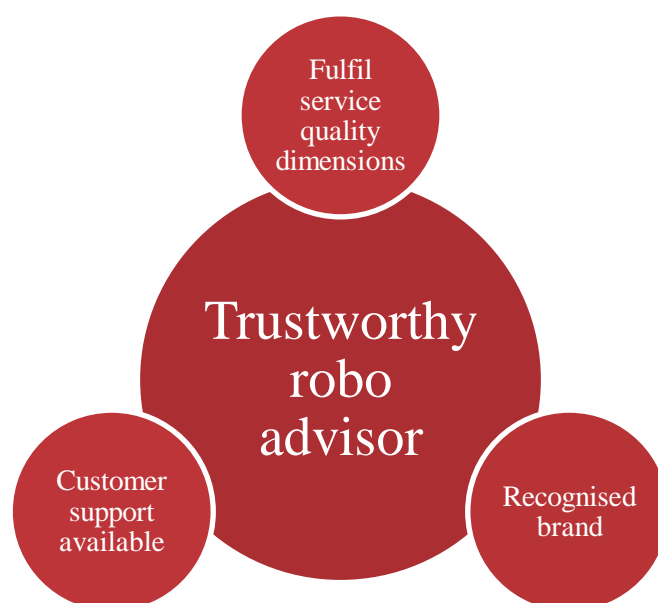


Figure 7. Elements for building a trustworthy robo advisor

The first element includes service quality dimensions that consist of four major dimensions and three minor dimensions. Those four major dimensions are advanced technology, user experience, offering, and existing customer base, whereas the three minor dimensions are operating license, website content, and geographical location. On the grounds of the expert interviews, these are the key factors customers pay attention to when evaluating the trustworthiness of a robo advisor. The second element, recognised brand, refers to the suggestion that a strong, widely recognised brand gives a major contribution in trust building. However, building such a brand can also be highly expensive and difficult, especially for the start-up robo advisors. Finally, as a third element, the robo advisor should have customer support available for their clients, besides communicating clearly who will be there to help if something goes wrong or the customer needs assistance.

4.3 Engagement as a key for customer loyalty

Loyal customers nurture the success of a company (Reichheld & Sasser 1990, Harris & Goode 2004, Thaichon et al. 2014), and this is especially important in the online context (Nielsen 1997, Scheraga 2000). This chapter describes how loyalty emerges and can be built in the robo advice context.

When asked about loyalty, the interview informants tend to have slightly different perceptions. Nordin wanted to differentiate companies providing only investment advice from those who are also taking care of the investment management side. He sees that within the advice-only services loyalty is low as the actual investing of assets is done somewhere else than in that particular service, and customers could just try out to see what kind of investment advice different service providers are giving. Nordin sees that the most loyal customers will be achieved by robo advisors that offer discretionary asset management.

Ruotsila, in turn, predicts that loyalty is not that important anymore in the digital investment management context, as customers will invest only a small proportion of their total assets in one service. On the contrary Bussy would not question the relevance of loyalty as that is the motive and reason for long-term investing:

“The whole concept of investing is that it’s a long-term play, and the key selling point of robo advisors and what they are trying to achieve. They [robo advisors] are increasingly goals-based, which means that the customer is investing his money for an x period of time to achieve a particular goal. – – The key is that the customer sticks with that journey and does not panic and change, to achieve those goals. And that’s the whole premise of what robo advisor is about to do. It isn’t about short-term money but to help investors to achieve their long-term goals.”
(Bussy 2017)

But how to make your customers loyal, then? With the answer to this question the interview informants more or less agreed. Of course, the service should be able to offer good investment returns with relatively small costs, and you can also offer e.g. pioneering

technological solutions that others are not offering. But when asking about loyalty, the most repeated and highlighted word was *engagement*:

“[Loyalty requires] Building engagement around the relationship, creating the feeling that we are in this journey together.” (Bussy 2017)

“Advice-only robos will not survive because they do not give enough value to customers and do not engage. Someone may check maybe once a year [the advice-only service] but discretionary asset management engages, you want to follow your investments as your money is in there.” (Nordin 2017)

“You need to engage them [customers] by adding their knowledge about their personal situation and make them think. Engagement requires trust, and by engaging your customer you can create real digital conversations. Conversations are needed to generate personal relationship, because you need to know how to communicate. — In EU and US it is going more to service thinking, you need to ask customers to pay for services, and in Asia it is about products, but similar is the need to engage customers.” (Sironi 2017)

Building personal relationships and having conversations with customers is probably the most successful form of engagement, and was described by Ahrner as follows:

“Add value in their life. And by value I don’t necessarily mean monetary value. You need to give help to your customers, take care of them. If you stop caring, they stop using and change to someone who does care.” (Ahrner 2017)

Consumer Engagement (CE) has received a lot of attention during the last years, both from academic researchers as well as practitioners (see Marketing Science Institute 2012, 2014, 2016). Brodie, Hollebeek, Juric and Ilic (2011, 252–253) defined CE as *interactive experience and value co-creation within marketing relationships*, and suggested that it enhances the performance of a company in terms of sales growth, competitive advantages, and profitability. Engaged customers are a key for viral marketing activities such as referrals and recommendations, and they play an important role in developing offering and co-creating experiences and value.

CE is conceptually closely tied to Nordic School's service-dominant (S-D) logic (Gummesson 1994, Vargo & Lusch 2004, Grönroos 2010). The S-D logic consists of 10 foundational premises from which four are particularly relevant for CE (Vargo & Lusch 2008). These premises are '*customer as a co-creator of value*', '*value creation occurs within networks*', '*value is always uniquely and subjectively experienced*', and that '*service-centered view should always be customer-oriented and relational by nature*'.

Engagement requires some imagination, as was discussed in Robo-Investing Europe 2017 conference (Garcia et al. 2017). Engagement is a way to be meaningful for the customer – you should not just forget them after on-boarding. The advantage of big media companies such as Facebook or Google is that they already have the experience in engaging and discussing with their customers. If a company knows how their customers are doing, what is going on in their lives, and what they care about, the company also has the means to be relevant for its customers. For example, a company can identify different phases in their customers' lives, and prepare solutions for these phases. How a robo advisor could identify if their customer is going to buy a house, getting a baby, or wanting to travel around the world? Perhaps big data could be the key in this.

One issue for robo advisors is how to engage customers to finish the on-boarding process, when the regulation requires asking a certain questionnaire which the customer can consider as boring and too long. A solution might be found in the use of artificial intelligence or gamification, or the process could be turned into an educational journey for the customer (Garcia et al. 2017).

4.4 Re-evaluation of the theoretical framework

The theoretical framework of this study was based on earlier trust formation theories (Garbarino & Johnson 1999, Geyskens et al. 1999, Oliver 1999, Montoya-Weiss et al. 2003, Wolfinbarger & Gilly 2003, Kassim & Abdullah 2010, Yousefi & Naisiripour 2015, Fernández-Sabiote & Román 2016) as follows: Starting from perceived service quality, I proposed service quality affecting satisfaction, and with satisfactory

experiences a trust relationship can be formed between a prospect and the service provider. If the service provider succeeds with nurturing trust, it can result in a customer relationship and furthermore can also lead into customer loyalty. The theoretical framework also notified the hygiene factors and differentiating factors of the service, which appear during the different phases of digital investment management service usage.

The suggested trust formation process was further adapted into the real world by interviewing professionals in the field, asking them questions around the phenomenon, and finding out elements from their descriptions that can be identified associating or belonging in one of the milestones suggested in the theoretical framework. Findings based on these interviews show that, as suggested, the process begins with service quality factors. Therefore, I believe the service quality factors leading into satisfaction, which is required before moving on to the next phase, trust. However, comparing to other trust-building milestones, satisfaction was not specifically highlighted during any of the interviews and therefore I suggest excluding it from the re-evaluated framework.

Instead I suggest that when the service successfully fulfils the service quality factors, the prospect will move on to the next step, the trust formation process. However, forming a trust relationship with a prospect might not be enough to form a customer relationship. What was highly suggested by all the interview informants was engagement (see Vargo & Lusch 2004, Brodie et al. 2011). Therefore, in the re-evaluated framework I suggest, instead of trust, engagement being the critical factor in converting a prospect into a customer.

To clarify this, when thinking of companies in a competitive environment, many of the companies might manage to form a trust relationship with the prospect, but the one who manages to engage with the customer – to be meaningful to and co-create value with the customer – will most probably win its competitors. Going forward, if the service manages to engage the prospect, convert the prospect into a customer and continue engaging, it has the possibility to gain the loyalty of the customer. Figure 8 illustrates the re-evaluated synthesis of the theoretical framework.

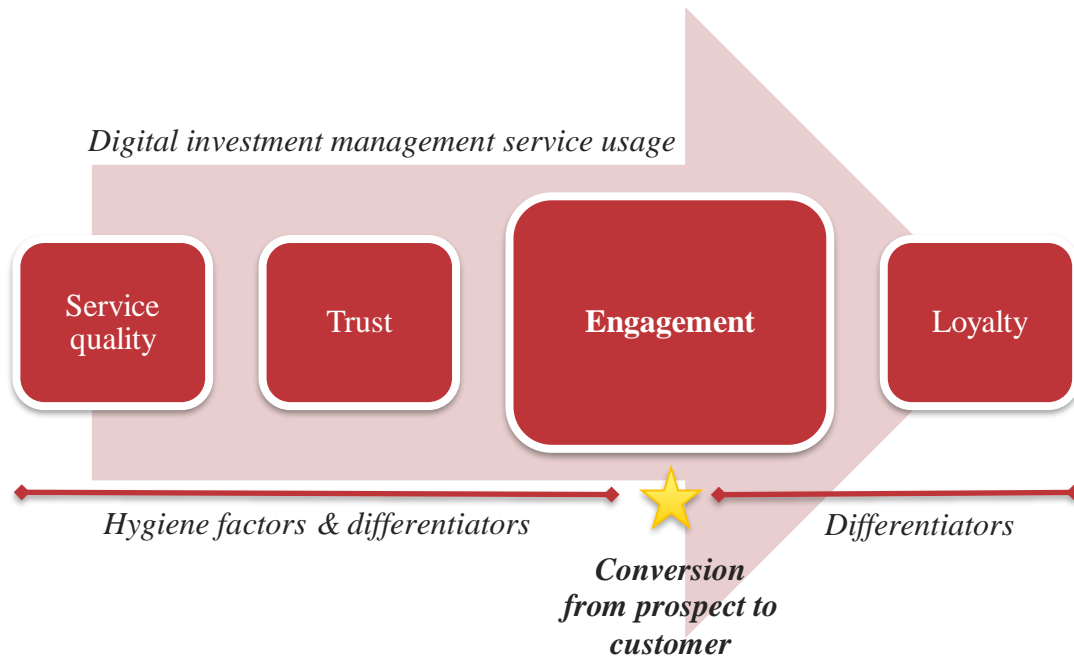


Figure 8. Re-evaluation of the synthesis of the theoretical framework

As it can be concluded from Figure 8, considering hygiene factors and differentiators, both can emerge before the customer relationship is formed. However, before a customer relationship can be formed, I suggest that all the hygiene factors need to be fulfilled, as they are the basic underlying assumptions for a customer relationship. Therefore, after a conversion, only differentiators could occur. Notwithstanding, it needs to be remembered that this suggested framework is a variation from the original synthesis of the theoretical framework, and the changes are based on the findings of this research. The objective for this research is not to provide generalizable research results, but to provide tools and ideas in better understanding the phenomenon of digital investment management services.

5 SUMMARY AND CONCLUDING REMARKS

5.1 Summary of the research

The purpose of this study was to describe and analyse how trust and loyalty emerge in the context of digital investment management services. In terms of customer understanding, this study also reviewed the reasons for a customer to prefer a digital investment management service over the traditional model. To achieve this purpose, following research questions were set:

1. What are the reasons for an individual to use digital investment management services instead of the traditional model?
2. What are the characteristics of a trustworthy digital investment management service?
3. What is the role of loyalty in digital investment management services?

The research process begun by profiling the synthesis of the theoretical framework. First the research topic was set into the context by looking into the basic characteristics of services, the history of traditional services, and the characteristics of digital services. The main difference between a traditional service and a digital service is the lack of face-to-face human contact. Usually in a digital service the customer interacts with the digital user interface of the service provider, or in some cases there might be voice or video communications with a representative of the service provider over Internet.

After considering typical service characteristics, I discussed the trust relationship between a customer and a service provider in a traditional offline service setting, in the online era, and in the context of financial services. As services are characterized as intangible, the previous research suggests that trust is exceptionally important. A customer needs to be able to trust the service provider that they are going to deliver the service as promised, even though the customer might not be able to see, try or experience the service before paying for it. Therefore, trust is a prerequisite for a commercial customer relationship to

form in the context of services, especially in digital services as the frontline employees are not in place comforting customers' doubts and reducing uncertainties.

Trust is especially important in the financial industry, where one's financial welfare might be dependent on the service provider's competency. In the financial industry in general a lot of research is conducted around trust, both in offline and online service contexts. However, a clear research gap was identified in the research of digital investment management services. As this is a relatively new concept it has not been, as far as I know, under any broad academic research, but as the industry and customer needs are continuously moving towards digital channels, this can be considered as an important subject for research.

Plenty of researchers have modelled the process of achieving customer trust and loyalty. These different models were discussed to set the synthesis of the theoretical framework for the context of this research. Some of the models suggest the trust formation process being a linear continuum, whereas some suggest more circle-like relations with indirect and direct effects.

In this study, the synthesis of the theoretical framework was based on the linear continuum model, as illustrated with Figure 3. The linear continuum model begun with perceived service quality, keeping in mind the service quality factors introduced by earlier research, but without letting them restrict in finding service quality factors relevant for this study. Going forward from perceived service quality, I proposed service quality affecting satisfaction, and with satisfactory experiences a trust relationship can be formed between a prospect and the service provider. If the service provider succeeds with nurturing trust, it can result in a customer relationship and further also into customer loyalty. The synthesis of the theoretical framework also notified the hygiene factors and differentiators of the service.

On the philosophical side, the ontological assumptions, epistemologies, and methodologies of this study are based on moderate constructionism. Ontological assumptions of moderate constructionists refer to 'no objective reality', believing that

there might be a reality but it's existence is not relevant. Epistemological questions are more towards a subjective reality by believing that it is possible to understand local truths by learning how truths develop locally in the context and by observing a group bounded by subjectivity. Furthermore, in moderate constructionism, the methodology is to create community-based knowledge through empirical observation that is bounded by subjectivity.

Based on the philosophical assumptions, the research process proceeded with a mixture of deductive and inductive processes, also known as an abductive process. In practice this means that the research process varies between theory-driven and empirically-driven methods. In the context of this research, the process started by discussing theories and previous research, forming a solid starting point for the empirical research. During the data generation, the research was clearly empirically-driven, at times getting back into theory, as usually in an abductive research process.

The strategy of the research was based on qualitative approach, intending to create understanding on the topic under research. Primary data collection begun by observing in two industry events in Luxembourg and London, and further shifting into semi-structured interviews with five industry professionals representing four different nationalities. Secondary data was also collected in the form of publicly available data, such as reports and releases in robo advice, to support the planning and implementation of this research.

To address the first research question, the reasons for an individual to use digital investment management services instead of the traditional service model were examined. Based on the interviews, both encouraging attributions and discouraging attributions were discussed, encouraging attributions being *easiness*, *lower costs* and *neutrality* of the advice, and discouraging attributions being the *lack of human contact* and individual's *uncertainty with technology*. Further, to stress that not all the customer needs and expectations are similar, potential customer segments were suggested, named as *delegators*, *optimisers*, *'Do-It-Yourself' customers*, and *B2B2C customers*.

In a nutshell, delegators want to fully outsource their investing, whereas optimisers are always seeking for the most efficient investing solution. The DIY group wants to stay in

control of their assets and are only seeking for opinions and advice to base their investment decisions on, and finally, in the B2B2C model digital investment management service providers offer white-label solutions to other businesses and brands.

To answer the second research question, the next two paragraphs describe the characteristics of a trustworthy digital investment management service. The answer can be divided into *service quality dimensions*, *brand*, and *a digital first strategy*. The main service quality dimensions are *advanced technology*, *user experience*, *offering* and *existing customer base*, whereas the minor quality dimensions are *operating license*, *content* and *geographical location*.

The second important aspect of a trustworthy robo advisor is a strong, recognisable brand. Building a strong brand is especially difficult for start-up robo advisors, as they are building their brand from a scratch when comparing to established brands in the financial industry or brands from other industries, such as global media and technology brands. However, the latter groups might also face their difficulties, as the informants had their doubts on consumers' trust towards established banks and other big players in finance, as well as the difficulty for media and technology brands to convince customers their professionalism in finance as an addition to their core business.

Finally, with a digital first strategy I'm referring to the third dimension of trustworthiness: The robo advisor should not only be digital, but serve its customers with a digital first mentality. This works especially in reducing uncertainty among customers: Does the service describe, who will help customers and how easily and quickly they will get help if something goes wrong? Providing the customer with a possibility to communicate with other human being, even though they would never do it, might help in the trust building process. Also, the digital service can act as a customer on-boarding tool providing an easy and cost-efficient way to become a customer, and later the customer might pass on to the range of more premium, traditional services.

The third and the final research question considers the role of loyalty in digital investment management services. The informants' perceptions varied substantially when discussing

about loyalty, and it was seen with different characteristics and importance in the context. However, what all the interview informants stressed was *customer engagement* and the important role of it if a service provider wants to achieve their customers' loyalty. Engagement was described as *being meaningful, making customers to think, and creating real conversations*. As consumer engagement (CE) appeared unexpectedly and was not discussed earlier, a brief review into CE theories was conducted.

As a conclusion, I re-evaluated the synthesis of the theoretical framework and updated it to correspond the findings from the research data, which is visualised in Figure 8. Comparing to the original synthesis of the theoretical framework, the re-evaluated framework starts similarly with *service quality*. The next step differentiates from the original synthesis of the theoretical framework by removing *satisfaction* and suggesting *trust* instead. Therefore, the following step is *engagement*, during which the user should convert from a prospect to a customer. After this step, all the hygiene factors of the service should be fulfilled, and only differentiators should occur. Furthermore, these differentiators can facilitate *loyalty*.

However, what is good to remember is that the objective for this research is not to provide generalizable research results but to provide tools and ideas in better understanding the phenomenon of digital investment management services, and therefore the re-evaluated framework might only be suitable for this particular research setting.

5.2 Theoretical contributions of the research

As stressed by Ladik and Stewart (2008, 157) authors should be able to state their paper's contribution – how it *adds to what is already known* or how it *significantly extends* the work published earlier. There are multiple strategies in making and measuring contributions as well as classifying contributions. One of the most known strategies is the three domains strategy by Brinberg and McGrath (1985), where they suggest a contribution emerging in one or multiple of following three domains: conceptual domain, methodological domain, and substantive domain.

Conceptual domain is theory-based, seeking to offer new explanations of the phenomenon under research. The second domain is methodological, where the researcher brings new approaches to the research of a certain topic. The third, substantive domain refers to contributions where the researcher produces new information on the research context, such as bringing a phenomenon into a new industry, customer segment, geographical area, or so forth. The best papers provide contributions in all these three domains, but that being extremely difficult, most papers provide contribution in one or two domains (Ladik & Stewart 2008, 162).

When a researcher is starting to plan a study, what is critical from the contribution point of view is to identify a gap in the research of a certain topic that the author is intending to research (Ladik & Stewart 2008, 162). Therefore, he/she can seek to fill this gap, but only after a careful consideration whether it is necessary to fill in the gap or not. Namely a research gap might also be a sign that it is not even meaningful to fulfil the gap (Ladik & Stewart 2008, 162).

In this study, a clear research gap was identified, as the role of trust is highly researched in the traditional services context, in traditional financial services context, and in digital services context – digital financial services being left for less attention. As I see it, this is not because it would not be meaningful, but as the digitalisation of financial services is still relatively new to the industry. However, it is predicted to change the industry as Airbnb or Uber have changed traveling. The meaningfulness of studying this topic was also supported in discussions with multiple practitioners and academics during the planning phase of this study.

On the theoretical side this study brings contribution mostly on the substantive domain, bringing a known phenomenon into a new context. Trust in investment management is a topic researched quite a lot, but mostly only in the traditional face-to-face setting. Also, trust in digital environment in general, in e-banking and in online trading has been examined to some extent, but digital investment management services, being a fairly recent concept, is lacking academic research background.

Therefore, as a contribution on the substantive domain this study transfers the idea of trust in traditional investment management into digital context and examines the role and formation of trust in this setting. Furthermore, a contribution on the conceptual domain can be considered by suggesting adding engagement in the customer relationship formation continuum, as presented and discussed in the re-evaluated synthesis of the theoretical framework.

Ladik and Stewart (2008, 163) introduced the contribution continuum which provides a framework to classify the types of contributions made in research. This contribution continuum is replicated in Figure 9.

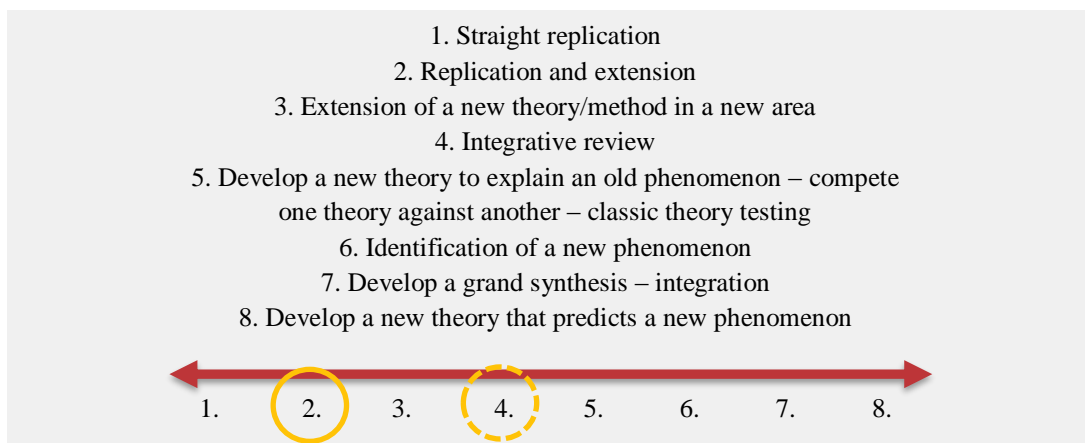


Figure 9. Contribution continuum (adapted from Ladik & Stewart 2008, 183)

Placing the theoretical contributions of this study into the contribution continuum by Ladik and Stewart (2008), I suggest the contribution in substantive domain falling into the category of ‘*replication and extension*’ by replicating an existing phenomenon, trust in investment management, and extending it into a new context, in the digital setting. The contribution in the conceptual domain that suggests adding the concept of consumer engagement into the customer relationship formation continuum also falls into the category 2. Additionally, a partial contribution can be identified in the category of integrative review, as this study also identifies new opportunities for empirical research that have not been previously identified in academic research. However, the contribution in this category is considered as partial due the new empirical research opportunities are at this stage limited into the context of digital investment management services.

5.3 Managerial implications of the research

In addition to theoretical contributions, this research aims to provide useful information for practitioners such as companies, executives, consultants and policy-makers. I suggest managerial implications on three different levels: 1) better understanding on the customers of robo advisors, 2) characteristics of a trustworthy robo advisor, and 3) how robo advisors can build loyal customer relationships.

Topics discussed in this study are meaningful for practitioners as there is relatively little information available on the trust formation process and service quality dimensions of digital investment management services. Being aware of service quality dimensions, the developers of robo advisors could be able to optimise these dimensions, and further enhance the trust formation process towards a positive outcome, customer relationship. Going forward, customer retention requires information on how to enhance loyalty and engagement in the digital investment management service. Thereby this chapter seeks to bring ideas and answers for companies and individuals working with planning a customer journey of a robo advisor from customer acquisition to customer retention.

Better understanding on the customers of robo advisors

The first managerial implication introduces aspects that help in better customer understanding. Based on this study, the main reasons for customers to choose a digital advisor over traditional were *easiness*, *lower costs* and *neutrality* of the advice. Easiness refers that the service is always available and accessible, and using the service is convenient. Lower cost simply denotes that automated, fully technology-based investment advice and investment management introduce a totally new budget solution in the industry. Neutrality refers that robo advisors, as serving customers based on technology and algorithms, are considered being more neutral than human advisors on their investment advice. Robo advisors should make sure they fulfil these expectations.

On the other hand, not everyone wants to adapt into using digital investment management services, and understanding this is also important. As the customers of robo advisors are real human beings, they do like meeting and discussing with other people and building

personal relationships. For some it is important to meet, discuss, and map their individual situation with another human being, especially if they do not feel that confident about their own knowledge and skills. Additionally, maybe people are not *yet* so confident with these new technological solutions, and are afraid of technology misuses and malfunctions, just as it was in the beginning of online travel booking: People were sceptical whether a flight or a hotel would really exist when they book online instead of going to a travel agency. Nowadays online travel booking is just as normal as shopping groceries in a local store.

In addition, different customer segments have different expectations for the service. Based on the study I identified four customer segments which are introduced below. The first segment, **delegators**, is seeking for an easy solution by outsourcing their investing to someone else. They might not have the confidence of taking care of their assets by themselves and it might also feel a bit distressing for them – they just want to get the investing done.

The second customer segment is **optimisers**, who are seeking for the best and the most efficient solution. This could be finding a simpler or cheaper way to invest, or both. These customers might want to outsource everything or just some parts of their investing, and they also tend to decentralise investments to different service providers. Typically, these customers have wider understanding about the financial industry and maybe also more assets to invest than the previous group of delegators.

The third group is the **Do-It-Yourself** group consisting of self-directed individuals. They are seeking for advice and opinions to base their investment decisions on, rather than searching for a solution that takes care of their wealth on behalf of them. Also, with the help of a robo advisor, they might be able to do things that they would not be able to do with a personal advisor. For example, this type of a customer might use a robo advisor for investing into growth equities in USA, which could otherwise be cumbersome.

Furthermore, what is trending especially among start-up robo advisors is offering their services for other players in the industry, forming a **B2B2C** customer segment. Start-up

robo advisors have noticed the difficulty to convince individuals to invest their assets via newly established services without the brand equity and customer base that the established players have. This has led start-up robo advisors to think alternative ways of customer acquisition, and quite many have started offering white-label services for established banks and asset managers, and pension saving solutions for corporations. Robo advisors are of course attracted by the masses of customers reachable through established players, and for the other counterpart, going white-label is an effortless turnkey solution.

Despite these different customer segments, the technology behind a robo advisor should be able to serve broadly a variety of different customers with different needs and expectations. This is the backbone of the advisory business. What then could or should be segmented are the user experience, languages, marketing, and brands also to some extent.

Characteristics of a trustworthy robo advisor

This study suggests that, as in traditional investment management, building a trust relationship with the potential customer is a precondition of converting a prospect into a customer. Traditionally trust was built face-to-face with the investment advisor or investment manager. Therefore, as in digital environment the face-to-face aspect is missing, this research suggests the following aspects for robo advisors to consider to nurture conversions. First, we are looking into the **quality dimensions** of a robo advisor, after which consider the importance of a **brand**, and finally discuss the **hybrid model** for robo advisors by offering both, online and offline services.

For service quality dimensions, four major dimensions and three minor dimensions were identified. These major dimensions are technology, user experience, offering, and existing customer base, whereas minor dimensions are operating license, content, and geographical location.

Technology

A critical hygiene factor for gaining the trust of a customer and therefore acquiring any customers is well-functioning technology. Customer should not face any errors nor bugs in the service experience to be able to trust it. Providing pioneering technological solutions can also be a way to differentiate in the competitive environment either via unique offering or efficiency through lower operating costs: a robo advisor can differentiate by offering their clients for example an advanced portfolio rebalancing functionality.

User experience

In digital environment, the customer of a robo advisor interacts with the user interface of the service instead of a frontline employee. Therefore, one of the cornerstones of building a robo advisor is building the user interface (UI) and designing the user experience (UX). The UI should be easy to use, easy to understand without any jargon or technological language, and be transparent by clearly and understandably articulating what customers get and what they are paying for. Customers should also be informed what happens in case they need assistance, for example, are they able to call or chat with someone.

The possibilities for differentiation via UX would be to offer differing interface and experience than others are offering. One differentiation strategy could be to transform the user experience into an educational journey. This would help in generating real digital discussions with customers and engaging them to learn more about investing or other causes they care about, such as how their investments facilitate sustainability. Differentiation can also mean offering customers better customer service, offering not only digital experience but a superior omni-channel experience by combining digital, personal and physical elements.

Offering

Offering-wise there can also be several hygiene factors and differentiators identified. First of all, a robo advisor should be able to offer its service on a relatively low cost level. As robo advisors usually do, as a hygiene factor they should offer at least exchange-traded funds (ETFs). Additionally, an important hygiene factor for example in the UK market is

that the robo advisor can offer an Individual Savings Account (ISA), an efficient solution for long-time investing. This quality dimension enables robo advisors to differentiate by expanding their investment product offering beyond ETFs. They could also expand into offering other tools for individual's personal financial management, such as spending analysis, budgeting, credit monitoring, and so forth.

Existing customer base

Maybe a bit trickier hygiene factor, at least in the beginning of a newly established robo advisor, is the requirement for having an existing customer base. No one wants to be the first or the only customer. To gain the trust of an individual, the service should already have a critical mass of customers who trust the service. Obviously, that needs to be communicated, for example by showing references and recommendations through the user interface or encouraging existing customers to recommend the service for their contacts.

Minor dimensions

As much as regulation can be a burden, operating licenses granted by authorities can also be a source of trust. Simply having an authority-licensed, regulated robo advisor, and showing that to your customers, can create the feeling of trustworthiness towards your customers.

Content-wise, robo advisors can communicate and create trust by providing or appearing in different kind of listings, comparisons, recommendations, blogs, reviews, and online magazines. Furthermore, robo advisors can also create interesting content to provide to their customers, such as educational videos and research results that engage customers and further prove the professionalism of the robo advisor.

Even though the nature of robo advice business is digital and in that sense not depending on one's geographical location, robo advisors are still very often bounded to a specific region or economy for language and regulatory reasons. This can also be an advantage by creating customers a feeling that their advisor is "closer".

Going forward from the quality dimensions of the actual service, this research also stresses the importance of a strong brand and a hybrid model combining online and offline services in the trust formation process. These two aspects are now further discussed.

The results of this study emphasize that a strong brand gives a major contribution in building trust. A strong brand is recognizable and extensively visible in both, organic and paid channels. To some extent, an exceptionally good investment advice or service offering, user experience, and organic visibility through gaining media coverage in newspapers, magazines and blogs can help in brand building, but unfortunately in an environment where companies need to increasingly fight over consumers' attention, that is not enough. Branding can be highly difficult and expensive, especially for the start-up players.

It seems that banks and other established players in the financial industry have the strongest brand assets in the robo advice field, especially when their reputation is *good* (e.g. no significant crises nor negative publicity in the recent history). This is simply because they already have a recognised brand, established presence in the market, and an existing customer base. The most favourable this option seems to be for the aging customer group of robo advisors.

However, especially millennials might have trust issues with traditional financial organisations. In addition to start-up robo advisors, this gap could be filled by an emerging group of challengers – global media and technology brands – such as Google, Facebook and Amazon. This is of particular interest due to their ability to reach almost everyone owning a smartphone and as they are especially popular among millennials. This is the biggest threat to traditional players. In Asia, WeChat and Alibaba have already successfully published their own robo advisors.

Additionally, what was interesting to notice is that the characteristics of brands in the financial industry are changing as the characteristics of retail brands are entering the industry. The way how financial organisations talk to their clients is changing, when listing cold, hard and numeric facts is transforming towards soft values, emotions and

feelings. Maybe brands in financial services have not managed to successfully implement customer-centricity in their communications previously.

In addition to fulfilling the service quality dimensions and having a strong, recognizable brand, companies should remember that robo advice is not a digital-only business, it's a digital-first business. To gain the trust of (potential) customers, the robo advisor should be transparent on the people behind the service, and describe who will be responsible if something goes wrong or the customer needs assistance. This is especially important if you are representing a start-up brand, without the brand assets of Google or JPMorgan, to exemplify. In the beginning, it is especially urgent to invest into a call center or a chat functionality providing customers a possibility to speak with a representative of the company. Customers might not use it that often, but they need to know that it exists in case they happen to need it.

A real hybrid robo advisor would mean that customers can progress in parts digitally, but have the possibility for a chat, a phone call, a video call or a meeting. This offers more options to the customer and might help in building trust and customer relationships, but it also increases the costs of running the service. However, having a traditional service infrastructure behind the digital offering can also bring additional sales. A robo advisor can be a bait for customer acquisition, and later these clients can transfer from the digital service to face-to-face advice. Also in the segment of High Net Worth Individuals, having personal, face-to-face service is crucial, and having personnel available for those purposes can generate new, profitable business for robo advisors as well.

How robo advisors can build loyal customer relationships

First of all, it is important to differentiate companies providing only investment advice from those who are also taking care of the asset management side. Within the advice-only services loyalty is low as the assets are invested somewhere else than in that particular service, and customers could just use it to try out what kind of investment advice different service providers are giving. Therefore, one could suggest, that the most

loyal customers will be achieved by robo advisors that offer discretionary asset management. But is that enough?

Of course, the service should be able to offer good investment returns with relatively small costs for the customer, but those are hygiene factors. To differentiate, you should be able to **engage** with customers. If you manage to engage your customers, you are meaningful to them. A prospect might trust you, but in order to converting the prospect into a customer, you need to be more than that – engage and be meaningful to them.

How to engage customers, then? By creating your customers a feeling that you are in this journey together. Adding their knowledge about their personal situation and making them think. Adding value in their life by truly helping your customers and caring of them. By this you can achieve real digital conversations, which in turn proves that you are meaningful to your customer. This is a *personal relationship* in the digital age, which is also known of its importance in the traditional investment management setting. Furthermore, engaged customers are the key for viral marketing activities such as referrals and recommendations, and they play an important role in developing offering and co-creating experiences and value.

5.4 Evaluating the research quality

Often validity, reliability and generalisability are seen as the criteria for ‘true scientific research’ (Kvale 1995, 20), but as such these do not fit into the moderate constructionism philosophy, which is represented in this study. Järvensivu and Törnroos (2009, 103-104) suggest that the validity of a moderate constructionism based research can be determined if its (1) truth claims are supported by data; (2) claims, data, and chain of arguments linking them together are acceptable to the scientific community; and (3) the scientific community that determines the validity follows the norms of criticism, public standards, and equality of community participants. Järvensivu and Törnroos (2009, 104) continue that when these conditions are met, one can safely act on the created knowledge.

Lincoln et al. (2011) explain further the community aspect of validity by suggesting that validity from the community can safely be considered being met if the research represents authenticity and fairness. By authenticity and fairness they mean that all different viewpoints, perspectives, concerns and claims are visible in the final outcome of the research. By this they do not seek to increase the objectivity of the research but to ensure that all the viewpoints collected in the data generation process are heard and made visible.

The purpose of moderate constructionism is not to reveal universal truths but to form understanding on local, context-specific phenomena. Therefore, generalisability could be replaced by transferability, which refers to the possibility of utilising a context-specific theory in analysing another related contexts (Lincoln & Guba 1985, Yin 2013). Lukka and Kasanen (1993) state that transferability can be met if a research provides a thorough understanding on following: (1) prior theoretical knowledge of a substance area, (2) prior empirical results and their interpretations, (3) researcher's own empirical results and their interpretation, and (4) the environment of the studied phenomenon.

Considering the validity of this research, all the claims and suggestions are made based on the data collected for this study. Furthermore, based on the knowledge of the scientific community and its demands, and just to follow general practices, all the claims and suggestions in this study are backed up with the relevant data and making the reasoning chains visible and transparent. Finally, considering the third aspect as explained by Lincoln et al. (2011) with fairness and authenticity, I do guarantee that as a researcher I have made visible all the different viewpoints, perspectives, concerns and claims that appeared during this research process.

On the transferability side, I do believe that I have comprehensively and clearly provided a thorough understanding on the topic by elaborating the prior theoretical knowledge in the substance area of this research, the prior empirical results and their interpretations, the researcher's own empirical results and their interpretation, and the environment of the studied phenomenon. Therefore, I can encourage that the findings and suggestions of this research could be transferred and utilised in related contexts as the context of this study.

5.5 Further research perspectives

As the world of finance is constantly digitalising, it is important to research this topic even further to form even better understanding on the phenomenon of digital investment management services. Just as any other research, this study has its limitations, which in turn create interesting opportunities for the future research.

This research concentrates on the relationship between a customer and a service provider, but was conducted with a qualitative approach by interviewing industry experts, such as founders of robo advisors or those working closely with robo advisors, like consultants. Qualitative approach was selected due to the need to build better understanding around the phenomenon of robo advisors.

Taking into account the freshness of the subject, it could have been difficult to conduct a successful quantitative research with fairly little understanding on the concept, and especially in this situation where the researcher does not have experience on quantitative research in the academic world. In addition, the biggest robo advisors come mostly from UK and US, and for example in the Nordic countries where the researcher is from and has her networks in, there are only few functional robo advisors. Therefore, it would have been difficult to reach a sufficient number of responses from the customers of robo advisors, at least without significant help from the service providers.

Therefore, in the future it could be meaningful to carry out research on similar topics (such as reasons for choosing an online service instead of an offline service, quality dimensions, trust-building, loyalty, and engagement in robo advice context) by using both qualitative and quantitative research approaches, and selecting either the customers of robo advisors or the administrators of robo advisors as the focus group, or even combining these and comparing their opinions. This kind of research could then mirror the results into the findings of this research to find similarities or differences, or alternatively, the findings of this study could assist in developing hypotheses for the future research.

The empirical data of this research was generated by interviewing industry experts from Finland, Italy, Sweden and UK, and by participating conferences in Luxembourg and UK.

Therefore, the viewpoints might be relevant in the European context, but it would be interesting to collect similar data even more globally or alternatively more locally by concentrating on one specific geographical market.

Additionally, this study provides viewpoints on better understanding on the phenomenon of robo advisors, such as reasons for choosing an online service instead of an offline service, different customer segments and their expectations, service quality dimensions, the trust-building process, and loyalty and engagement. Even though it is important to understand these concepts in digital investment management context on a general level and how they relate to each other, on the other hand this study provides only a scratch to each of these sub-concepts. Consequently, would be of interest to dig deeper into each of these introduced sub-concepts, both with qualitative and quantitative approaches and by utilising theory-driven and data-driven methods.

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APPENDICES

APPENDIX 1: International interviews and observation

Interviews

Ahrner, U., Founding Partner, Chief Executive Officer, Primepilot AB. Interview 31.03.2017. Informant's nationality: Swedish.

Bussy, S., Principal Consultant, Altus Ltd. Interview 11.04.2017. Informant's nationality: British.

Nordin, R., Head of Sales, FA Solutions. Interview 27.02.2017. Informant's nationality: Swedish.

Ruotsila, I., Head of Baltic Integration, External Advisor, Nordea Markets. Interview 21.03.2017. Informant's nationality: Finnish.

Sironi, P., FinTech Thought Leader, IBM Watson Financial Services. Interview 28.03.2017. Informant's nationality: Italian.

Observation

Garcia, M. J., Lane, A., Resnik, P., Schouten, A., Theo, R. (2017). Panel discussion *Modern Customer Engagement* in Robo-Investing Europe 2017 event. London 01.02.2017.

Carré, O., James, F. & Witz, P. (2016). Keynote presentation *Automation in Financial Advice: Trends, Opportunities and Implications* in The Luxembourg Bankers' Association event Robo-Advisors and Digital Investments. Luxembourg 07.12.2016.

APPENDIX 2: Interview guide

Preliminaries and general understanding

0. Practicalities
 - The topic and the background of the thesis
 - Definition of robo advice/robo advisor
 - Allowance for sharing the information for the thesis purposes
 - Allowance for recording
 - Introduction and background of the interview informant
1. Understanding the business
 - Why companies want to build robo advisors?
 - What kind of companies are building robo advisors?
2. Understanding the customers
 - Why customers want to use or avoid robo advisors?
 - Different customer segments
 - Expectations of these different segments

Building a robo advisor: Service quality, satisfaction, trust, and loyalty

3. Service quality
 - Service-related aspects considered and signs observed when choosing “the right one” among robo advisors
 - Previously the relationship was between the advisor and the customer. How the relationship is formed in a digital environment?
4. Satisfaction
 - Satisfactory service experience – what is it, where it stems from?
 - Hygiene factors and differentiators
5. Trust
 - How trust is formed?
 - Importance of a brand. Start-up vs. established financial organisation vs. established organisation from other industry
 - People behind the company. Does it matter? How visible it should be?
6. Loyalty
 - What makes customer to stay with the service provider?
 - What makes them to invest more (“repurchases”)?

Additional considerations

7. Do you have something to add?