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Irrational investment decisions amongst Finnish investors

Suomalaisten sijoittajien epärationaaliset sijoituspäätökset

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ABSTRACT

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Keywords: irrationality, investment decision-making, cognitive biases, risk perception, risk profile, risk tolerance, risk propensity, investment advisory

The purpose of this thesis is to examine irrational investment decisions of investment clients in a large financial service group. This research focuses on the analysis of the situations in which the investor deviates from the suggested proposal for investment. The proposal is based on received investment advisory and Investment Plan's suggestion. The term irrationality is used to describe this deviation since the suggestion of the carefully constructed Investment Plan can be seen as the best solution. Investment Plan takes into consideration every relevant factor attributing to investment decision-making. The goal of the thesis is to find out the frequency of the deviation occurrences and factors affecting investors' irrationality. This thesis aims to conclude if the irrational investment decisions are more or less risky than the original proposal as well as what are the most important questions the investor should ask the investment advisor. The research was done as a qualitative research and the data collection method was interviews. The interviews were conducted to three investment advisors and to the Vice President of the case company.

The research aimed to explain reasons that affect to the irrational behavior. Results show that roughly one out of ten investors deviate from the suggestion of the Investment Plan. The investment decision's riskiness is dependent on the investor. The most relevant factors attributing to investors' irrationality are previous experiences, preference of domestic and well-known stocks, advisory from family and friends, the investment's original source of money and the timing of the investment. Whenever something happens or is expected to happen in the financial

markets, investors activate and irrational investment decisions increase as the uncertainty increases.

TIIVISTELMÄ

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Tämän kandidaatintutkielman tarkoituksena on tutkia suuren finanssialan yrityksen sijoittaja-asiakkaiden epärationaalisia sijoituspäätöksiä. Tämä tutkielma tutkii tilanteita, joissa saadusta sijoitusneuvonnasta huolimatta sijoittaja päätyy poikkeamaan ehdotetusta sijoitussuunnitelmasta. Tutkielmassa tähän poikkeamapäätökseen viitataan termillä epärationaalisuus, sillä sijoittajan saama sijoitusehdotus pohjautuu yrityksen käyttämän, tarkasti ja huolellisesti laaditun, työkalun ehdotukseen. Tämä työkalu ottaa laajasti huomioon sijoittajan sijoituspäätökseen olennaisesti vaikuttavat tekijät. Tavoitteena on selvittää, kuinka usein näitä epärationaalisia sijoituspäätöksiä esiintyy sekä millä tekijöillä on vaikutusta sijoittajan epärationaalisuuteen. Tavoitteena on lisäksi selvittää, sisältävätkö nämä epärationaaliset sijoituspäätökset enemmän vai vähemmän riskiä kuin alkuperäinen suositus sekä tärkeät kysymykset, joita sijoittajan tulisi esittää sijoitusneuvojalle. Tutkimus laadittiin laadullisena tutkimuksena ja aineistonkeruumenetelmänä käytettiin haastatteluita. Haastattelut tehtiin kolmen sijoitusneuvojan sekä yrityksen sijoituspuolen johtajan kanssa.

Tutkielmassa selvitetään syitä sijoittajan epärationaaliseen käyttäytymiseen. Noin joka kymmenes sijoittaja poikkeaa sijoitusehdotuksesta. Sijoituspäätöksien riskisyys on riippuvainen sijoittajan ominaisuuksista. Sijoittajan epärationaalisuuteen vaikuttaa vahvasti sijoittajan aikaisemmat kokemukset, tunnettujen kotimaisten osakkeiden hallussapidon ja hankkimisen suosiminen, lähipiirin neuvonanto, sijoituksen alkuperäinen rahan lähde sekä sijoituksen ajankohta. Aina kun sijoitusmarkkinoilla tapahtuu tai jotain odotetaan tapahtuvan, sijoittajat aktivoituvat ja epärationaaliset sijoituspäätökset yleistyvät epävarmuuden vallitessa.

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1. INTRODUCTION

Efficient markets work under the assumption of rationality. Despite the theories of conventional finance, irrational investment decisions occur often in the financial markets. There are many theories that contradict the assumption of a rational investor (Jain 2015, 7-8). Economics have risen against the conventional finance theory. It has been emphasized that the psychological and behavioral factors affect the decision-making process in the financial markets. (Malkiel, 2000) Various studies have analyzed the sensitivity of market equilibria to imperfect information and one of the conclusions have been that the properties of the market equilibria are sensitive to strategies used by individuals (Grether, 1980). These strategies are dependent on the individual and can be irrational. Neoclassical economics describes that buyers attempt is to maximize their well-being by increasing their purchases and basing these decisions rationally. Neoclassical economics assume that people have rational preferences among outcomes, individuals maximize utility and companies maximize profits and finally, people act independently on the basis of relevant and sufficient information. (Weintraub, 2002) Markets however can be efficient despite the irrational behavior and cognitive biases that affect their decision-making (Daniel and Titman, 1999). Under uncertain decision-making situations, individuals make irrational investment decisions and they are usually affected by cognitive biases (Serfas, 2011). Errors in judgment may vary largely and one of them can be incorrect valuation of an individual stock (Malkiel, 2000).

Individuals often make irrational decisions especially under uncertainty. Irrational decisions can be seen as a result of individuals' bounded rationality. Bounded rationality describes the framework for when individuals make decisions. Their rationality is restricted by for example cognitive limitations of their minds. (Simon, 1955)

Investment advisory is a topic that has always raised interest amongst all investors despite demographical location. Investment advisory is about to undergo changes since the Markets in Financial Instruments Directive (MiFid) II is to become effective 3rd of January 2018 (European Comission, 2016). The existing MiFid is a European Union directive and its main objective is to regulate investment services, improve

investor protection, harmonize investment services and increase competition within the financial sector in EU. The MiFid II is different from its previous version MiFid I, as its purpose is to improve investors' protection by improving the transparency of investment products and costs. (Financial Supervisory Authority, 2016b) As a result investment services that financial corporations offer may become more expensive since the new legislation increases the demands for documentation (Talouselämä, 2016). Even though the investor is given advisory, it occurs that they still, despite of the given information and knowledge, end up making conflicting investment decisions. This is the area this thesis focuses on; the irrational decisions despite given advice.

Irrational behavior of an investor has been studied before. The approaches for the analysis of this phenomenon are endless and therefore there have been multiple researches on the matter. However, the approach of this research focuses on the deviation from the suggested plan for investment based on the expertise of an investment advisor and a carefully structured tool, Investment Plan. This study fills a research gap because this research is limited to only Finnish investors that are clients of the case company. This is a new approach to understanding the irrational behavior of an investor. Therefore there is a research gap that the purpose of this thesis is to fill.

1.1 Research Problem, Objectives and Limitations

Understanding investment decisions being made in the financial markets is difficult. Given the assumption of rational behavior, the phenomenon of irrational behavior in the context of investing is quite unique and interesting. Especially when the investors analyzed in this thesis have been given the opportunity for investment advisory from a specialist. The research problem is to further understand and find out why investors don't follow the guidance of the Investment Plan and the savings specialist.

This thesis will examine the situations in which the investor despite of the recommendation of the Investment Plan and the savings specialist decides to deviate and makes an irrational investment decision. The goal of this research is to find why people make these decisions since it would be presumable that investors would act based on the expert's guidance. The understanding of this phenomenon is based on

the analysis of the Investment Plan, interviews with the case company's savings specialists and the theoretical background. What makes this topic particularly interesting is the fact that the Investment Plan is a carefully constructed tool that takes into consideration the personal features and ambitions of the investor that affect investment decision-making. So, it can be argued that the deviation is an irrational act since the suggestion of the Investment Plan should serve investors' best interest and fulfill their needs. Thus, in this research an assumption is made that a rational investor acts based on the suggestion of the Investment Plan.

Main research question is as follows:

"Do investors of the case company deviate from the Investment Plan's recommendation and if they do what is the frequency of this phenomenon?"

And sub research questions are

"Why do the investors of the case company make these decisions and what factors affect to this deviation?"

"Are the investment decisions in these cases more or less risky than the original recommendation?"

"What does the savings specialists think are the most important questions the investor should ask when they deviate from the suggestion of the Investment Plan?"

The thesis is regionally restricted to Finnish investors. The review is restricted to concern only the clientele of the case company and the behavior behind their decision-making. The case company is a large financial service group operating in Northern Europe. The generalization of the results of this study should be interpreted with caution since this thesis is a qualitative research and the sample size is small.

1.2 Theoretical framework and literature review

The theoretical framework of this research consists of three main components. The first one is risk and the second one is investment decision-making under uncertainty. The theory of risk specific in this research is restricted to review risk definition, risk profile and risk propensity of an investor. The final component of the theoretical

framework for this research is irrational behavior of an investor. This research is limited to study the irrational behavior of an investor through four cognitive biases. This theoretical framework creates a coherent whole to help understand the objective of this study. There haven't been previous studies specifically about the objective of this research. However, there have been studies regarding overall irrationality of an investor in different context.

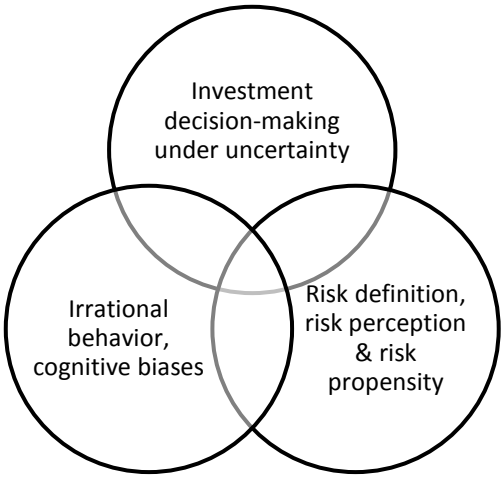

Figure 1. The theoretical framework

Daniel and Titman (1999) studied market efficiency in an irrational world via the effect of overconfidence to irrational investment decisions. They studied the reasons for investors' overconfidence and how it affects investment decisions. They concluded that there are investors that detect and profit from behavioral biases by examining past price trends of for example mutual funds. Daniel, Hirshleifer and Subrahmanyam (1998) studied under- and overreactions of securities market via two psychological biases of investors', overconfidence and self-attribution. Self-attribution leads to asymmetric shifts in the investor's confidence. They suggested that investors overreact to private information and underreact to public information. They found that overconfidence leads to negative long-lag autocorrelations, excess volatility and public-event-based return predictability. Self-attribution leads to positive short-run earnings but negative correlations between future returns and long-term past stock market and accounting performance.

De Long, Shleifer, Summers and Waldmann (1990) studied risk created by noise traders in the financial markets. They found that the unpredictable risk created by unsophisticated investors' decisions substantially reduces attractiveness of arbitrage. The irrational noise traders may be credited by tolerating the risk they themselves created by earning higher returns compared to rational investors. Meaning, since these investors make riskier decisions they can expect higher returns because risk and return go hand in hand.

Saphira and Venezia (2000) studied behavioral patterns of a large number of clients in a major Israeli brokerage house during the year of 1994. They compared professionally managed and independent investors. They studied specifically the presence of a cognitive bias, disposition effect, amongst independent and professional investors. Disposition effect is a famous cognitive bias introduced by Shefrin and Statman (1985). Disposition effect refers to investor's tendency to ride losses and realize gains (Frazzini, 2006). The cognitive bias was present in both groups but it was significantly weaker for professional investors. This leads to indicate that professional training reduces the effect of cognitive biases. They also found that professionally managed accounts were more active and had better roundtrip. They were also more diversified, correlated less with market and were more profitable compared to independent accounts. Poteshman and Serbin (2001) studied irrational behavior of an investor. They analyzed the early exercise of Chicago Board Options Exchange listed calls by investors with different background during the period of 1996-1999. They discovered two findings. First, there are many early exercises that can be stated irrational without any further analysis of irrationality. Customers of discount brokers and full service brokers act irrational whereas traders at large financial houses exhibit no irrational behavior in the context of early exercise. Second, underlying stock price attaining at its peak during the past few years and underlying stock having high past returns trigger irrational behavior.

These studies imply that irrational decisions do occur in the financial markets. It could be presumed that the lack of expertise could be one of the explanatory factors to the deviation.

1.3 Research methodology and data

This research is a qualitative case study. This research exploits theoretical background for investment decision-making, irrationality and the understanding of risk as well as the Investment Plan. This theoretical background aims to create a base for understanding the empirical part.

The focus of the study is the Vice President and her team of savings specialists in the case company. Her team consists of nine savings specialists that have investment meetings with clients on a weekly basis. The interviews were held with three of the savings specialists due to schedule restrictions and with the executive. The expertise of the interviewees is crucial and the knowledge they have gathered during their work as savings specialists. The goal for the results of this research is to help to understand the deviation from the suggested and carefully constructed Investment Plan. This research therefore aims to further analyze and understand irrational behavior of an investor.

Data collection method used in this research is interviews. Interviews can be seen as the proper way and the best data collection method for the analysis of this research since the goal for this research it is to gather information on the phenomenon from the experts of the field. Interviews are conducted separate from each other in order to ensure that the answers would be based entirely on the expertise of the interviewee. The questions are half-structured. Meaning, some of the questions have options from which to pick and some questions are open. The interviews are based on a questionnaire format that was sent to the interviewees before the interviews (Interview format in Appendix 1). This gave the interviewees an opportunity to see the questions and think of the answers beforehand. This way the interview situation itself focused entirely on the information gathering. The questionnaire was constructed based on the theoretical background of this research. Further analysis of the empirical data will be introduced later in this research in chapter four.

1.4 Structure of the study

This research is divided into five main chapters. The first chapter presents the background for the thesis as well as research problem, objectives, limitations and the research method used in this study. The second chapter will focus on the review of

the theoretical background by explaining risk definition and perception of risk, investment decision-making under uncertainty and finally irrational investment behavior based on cognitive biases affecting rationality.

In chapter three a further presentation of the research methodology is presented as well as the analysis of the Investment Plan. Chapter four focuses on the analysis of the interviews and the results collected from them. Finally, in the fifth chapter, summary and conclusions are presented. In the end of the fifth chapter suggestions for further research are presented.

1.5 Keywords

This chapter introduces the keywords used in this research in order to help the reader to further understand the text.

Investment Plan

The Investment Plan is a carefully constructed guide that the investment advisor uses in the investment meetings with the client in the case company. It is a tool that helps to collect relevant factors affecting investor's investment behavior. Once its filled, it forms a suggestion for the investment to be made for the investor. An assumption made in this research is that a rational investor would follow Investment Plan's proposal.

Savings specialist

Savings specialist is the official title of the case company's investment advisors. Savings specialists meet investors in investment meetings and give investment advisory to them.

Irrationality

Irrationality is most easily explained as the opposite of rationality. Rationality is "conscious and logical adaptation of means to coherent ends" (Baudin, 1954). Irrationality in this thesis refers to situations in which the investor acts in an unexpected way. In the context of this research the deviation from the suggestion of the Investment Plan is referred to as irrational since the Investment Plan takes into

consideration every relevant factor affecting investment decision-making. An assumption made in this research is that a rational investor would follow the Investment Plan's proposal.

Investment Advisory

Investment advisory means issuance of recommendation regarding transaction of a financial instrument to an investor by an authorized firm (Financial Supervisor Auhtority, 2016a). Investment advisory refers to investment expert's guidance to the investor. In this thesis investment advisory is limited to consider only the advisory given by authorized bank's or financial service provider's employee that has sufficient education of investing. The advisory takes into consideration every relevant factor affecting investor's investment decision-making.

Cognitive bias

Cognitive biases are mental shortcuts individuals have in decision-making situations. Cognitive biases affect individuals' perception of the given information (Morreale, Stoklasa, Collan and Lo Nigro, 2016). This is emphasized whenever the decision-making situation is complex and difficult. Cognitive biases affect decision-making situations as they simplify the information so that it becomes more understandable for the decision-maker (Serfas, 2011).

2. THEORETICAL BACKGROUND

In this chapter the significant and essential theories that affect the phenomenon during which the investor despite given information decides to make a contradicting investment decision, are presented.

First, the theory of risk definition, risk propensity and perception are introduced. Second main theory will be investment decision-making under uncertainty and finally, the irrational behavior of an investor through four cognitive biases: representativeness, overconfidence, loss-aversion and illusion of control. These three main components form the background for the understanding of irrationality.

2.1 Risk Definition

Since the focus of this study is the analysis of irrational decisions it is important to understand risk. Investment decisions are made as a result of investor's analysis of risk and return. Risk can be most easily explained by the total variation of the returns of the investment. The total variation can be calculated by the standard division, which describes how much the return of the investment diverges from its long-term average return during a certain period of time. (Kallunki 2002, 29)

One of the most famous risk definitions was provided by Frank Knight (1921) in his work "Risk, Uncertainty and Profit" where he distinguished between risk and uncertainty. He defined only quantitative uncertainty to be risk. He stated that it is important to distinguish uncertainty from risk. He stated that measurable uncertainty or another words "risk" must be separated from the un-measurable. (Knight, 1921) However, the definition has gotten criticism due to the fact that it is not actually an exhaustive definition (Holton, 2004). Risk occurs when the future is unknown but the probability of different outcomes in the future is known. Uncertainty occurs when the probability of the future itself is unknown. (Miller, 1977)

Another famous and recognized output to the understanding of risk is by Harry Markowitz (1952) as he established a mathematical base for the portfolio theory in his doctoral thesis (Holton, 2004). The core idea of portfolio theory is to diversify the risk. Markowitz didn't provide an explanation for risk rather than a rule, which implies that investors consider expected return desirable, and the variance of the return

undesirable (Markowitz 1952, 77). This assumption suggests that investors seek certain returns leading to suggest that risk averse behavior would be the norm. Holton (2004) defined risk to have two main elements, exposure and uncertainty. Exposure means that the individual perceiving risk must have a personal interest in the outcome and uncertainty is the established truth that one can never know for sure what happens. All in all, Holton's definition of risk is "exposure to a proposition of which is uncertain". (Holton, 2004) In summary, an investor that has a personal interest in the outcome of the investment that is unknown has more risk in their investment.

Traditionally risk has been embraced as the danger of loss even though financial theories describes risk as the dispersion of the unexpected outcome of the investment. The unexpected movements of the financial variables explain this dispersion. (Jorion 2001, 81) As a conclusion, a way to activate investors in financial markets would be to shift the direction of the definition of risk to rather describe possibility of return than the fear of loss. The fear of loss can often lead to loss aversion and it could affect to irrational decisions when the investors are in fear of the variation of the value of their investments. As discussed later in chapter 3.1 in the analysis of the Investment Plan, it can be seen that the case company refers to investor as "return seeking" rather than "risk seeking". This indicates that the case company is trying to shift the understanding of risk to have a more positive undertone.

2.1.1 Risk profile

When trying to understand the investment decisions being made one must examine the risk behavior of an investor. Sitkin and Pablo (1992) characterize risk behavior as "the degree of risk associated with decisions made". The investor must recognize how much they are willing to tolerant decrease in the value of their investment and what is the maximum loss that the investor can tolerant. (Puttonen 2011, 23-24) Risk profiles are traditionally categorized to ether risk averse or risk seeking. The ability to tolerant risk is dependent on the individual perceiving the risk (Simon, Houghton and Aquino, 2000). However, the case company classifies its clients in five profiles: careful, moderate, balanced, return seeking and highly return seeking. This means that the case company is more able to take into consideration the individual features

of an investor. This can lead to more effective investment suggestions since clients can be specifically categorized in their risk profile.

Traditional financial theories assume that all investors are risk averse. Risk averse investors are often interpreted as rational investors. (Puttonen 2011, 23-24) However, one must be mindful of this assumption since there are other factors attributing to rationality than only individual's risk profile. Tversky and Kahneman (1979) suggested that individuals that are protective of prior gains are risk averse. Thaler and Johnson (1990) showed contradictive in their research as they stated that individuals are risk averse when they have previous experience of prior loss and risk seeking when they have experience in prior gain. The prior negative or positive experience creates an affect to individual's mood. Thus the past experiences would affect the risk profile of an investor. Another study that supports this claim that prior experience affects the risk taking of an investor is by Osborn and Jackson (1988). Their research suggested that the prior experience of executives' that work in dangerous environment companies affect their current and future actions. These theories suggest that the strongest explanatory factors to investors' behavior are previous experiences.

Another addition to the risk profile of an investor comes from the studies of Gilovich, Valone and Tversky (1985) as they brought forward the concept of "hot hand". In their research they studied the description used of outstanding basketball players. The player's outstanding performance during a certain period of time is used when describing the athlete rather than their overall record. This is a phenomenon commonly seen in the athlete world. This can be generalized to the analysis of the risk profile of an investor. Investors that have experienced bad luck during the day may tend to interpret their chances of winning lower than the stated probability (Thaler and Johson, 1990). In summary, the hot hand concept means that common occurrences are more likely to happen again.

One factor that has been studied before regarding risk profile is gender. It has been presumed that women would tend to be more risk averse than men. This may stem from the unequal perception that women wouldn't be as good leaders and decision-makers as men. Women are considered to be more conservative in investment

decision-making meaning less risk-taking and thus lower return expectations. (Schubert, Brown et al. 1999) Studies have shown that the statement that women are in fact more risk averse is true by for example Jianakoplos and Bernasek (1998) and Powell and Ansic (1997). More recent study also supports the argument that women are indeed more risk averse by for example Charness and Gneezy (2012). Despite of the results, it is suggested to use caution when interpreting gender differences as general trait due to the fact that it can further encourage stereotypical concept that women would be less able as financial decision-makers (Powell, Ansic 1997). All in all, based on the previous studies it could be interpreted that women are less risk seeking and thus in line with traditional financial theories, they would act more rational.

2.1.2 Risk perception and risk propensity

Risk perception is defined as individual's assessment of how risky a situation is (Sitkin and Weingart, 1995). Risk perception is highly influenced by decision consequences, uncertainty and information. Other attributing factors to individual's risk perception are the lack of information and the amount of possible loss. (Baird and Thomas, 1985) In their famous "Prospect Theory" research Kahneman and Tversky (1979) suggested that individuals' risk behavior is influenced by how that specific situation is framed. Other studies have however shown contradictory results that suggest that prior outcomes of individual's risk-taking behavior can predict future risk-behavior (Orsborne and Jackson 1988; Thaler and Johnson, 1990).

As mentioned, the perception of risk is dependent on the personal attributes of individuals. Meaning one's perception of a risky investment may not be the same in someone else's mind. Due to the fact that operational definitions of risk are to be applied to which can be perceived it is merely impossible to operationally define risk - it is only possible to define one's own perception of risk (Holton 2004). Operationalism in this context arises from the studies of Bridgman (1972). He refers operationalism to the fact that definitions of anything stem from the knowledge that is based on experience. This is why definitions can only be meaningful if they refer to experience. Hence the description of risk is dependent on the previous experiences of the person perceiving the risk.

There has been discussion as to what exactly affects the investor's propensity to take risk. Risk propensity is described as individual's tendency to either take or avoid risk. It is a feature that can modify and change over time. (Sitkin, Weingart, 1995) Risk perception varies amongst individuals due to cognitive limitations as they simplify strategies (Schwenk, 1986). Since cognitive biases affect the information individual exploits they may affect how individual perceives risk (Barnes, 1984).

Another factor attributing to individual's risk propensity is the amount of information presented to the individual (Morreale et al., 2016). Risk propensity can vary depending on how the risk is presented. Risk can be presented in various ways. It can be presented as a number, a graph or a verbal description. Kaufmann et al. (2013) presented risk to their participants in four different ways: numerical description, experience sampling, graphical display and a combination of these called the "risk tool simulation". Participants were presented with information of a risky fund and a risk free fund. Based on this given information they made an allocation to an investment portfolio. Risk propensity increased when presentation format of risk included experience sampling and displays of the distribution of returns. Beshears et al. (2011) concluded that presentation of risk as a graph could increase risk taking. They also stated that reporting only aggregated returns rather than individual component returns can increase risk taking. The case company in this research describes the different risk profiles as verbal explanations with an example of a possible investment and the value distributions. This way of risk presentation doesn't increase risk taking as previous research has shown. These information presentations increase the knowledge of an investor and therefore the investor becomes more aware of the investment product.

Sitkin and Pablo (1992) described risk propensity to be dependent on the risk preference of the individual, inertia and previous history. Risk propensity affects risk perception and these two in combination form individuals' risk behavior. Risk preference refers that individuals exhibit stable orientation as to whether they prefer risk or not. Inertia in this context means that an individual who has previously been risk-averse will continue to be so in the future as well. Previous history refers to previous success from risky behavior to modify risk propensity. (Sitkin and Pablo,

1992) This would suggest that investor's history and previous experiences with risk has the biggest effect on their risk behavior.

Figure 2. Risk Propensity, Risk Perception and Risk Behavior, Sitkin and Pablo (1992)

2.2 Investment decision-making under uncertainty

In the context of this research the theory of investment decision-making under uncertainty is relevant since all investment decisions are made under some amount of uncertainty. Uncertainty occurs despite of given investment advice since it is impossible to know the value development of an investment with absolute certainty beforehand. An investment is a present sacrifice for future benefit, but since the future is unknown, investments should rather be defined as a certain sacrifice for an uncertain benefit (Hirshleifer, 1965).

Investment decisions are always made under some amount of uncertainty because it is impossible to foresee the true returns and the fluctuations in the value of the investment beforehand. Several writers have studied investors' behavior in uncertain environments. Sharpe (1964) stated an assumption that all investors have access to the same information and agree about the risk and expected return of the assets. However, even though the information of the financial assets is in the reach of everyone, the perception of risk varies amongst investors. This perception can be explained by individual's personal attributes and previous experiences. Investment decision-making is highly dependent on the emotions of the person making the decisions. Previous experiences and overall emotions have an effect to the decision being made. (Causse, Péran et al., 2013)

Investing can be seen as a multistage process: it begins from the identification of the investor's ability to tolerate risk. Investment decision-making process ends on the evaluation of the investment made. (Kallunki 2002, 13) Decision-making can be described as the selection of course from all the possible options. In the past, scientists tried to understand the decision-making process based on various mathematical models. However, the direction for the analysis has most recently shifted to emphasize more psychological factors. (Chick, Pardo, Reyna and Goldman, 2012) This emphasizes the importance of mental factors attributing to investment decision-making. These mental factors that explain investor's behavior can be for example cognitive biases that are introduced in the following chapter.

When making investment decisions, the amount of information affects the outcome. One factor that tributes to the investment decision is a called "paradox of choice phenomenon". When individuals are presented with an extensive choice set they are less likely to make a decision than when the choice set is more limited. (Kida, Moreno and Smith, 2010) Gigerenzer and Goldstein (1996) presented the same notion that in complex decision-making situations, individuals with limited knowledge resort to satisficing algorithms. This theory would argue that it is important for the company selling investment products to present the necessary but not excessive information to the investor. Furthermore the bank needs to have competent investment advisors to answer the investor's questions. Investors that are well informed and financially educated are able to make good investment decisions for themselves and thus improve their financial well-being (Hilgert, 2003). Thus it can be perceived that in order for an investor to make investment decisions the amount, quality and adequacy of information attributes. The importance of information has been studied before by for example Duncan (1972) as he studied to identify characteristics of the environment that affect the decision making process. One of the discoveries was that even though decision-makers had enough information in their estimates they were uncertain of the accuracy of these estimates.

It can also be seen that today the data for investment decision-making is in the reach of everyone, since the information technology provides various outlets for investors to seek information (Morreale et al., 2016). This would lead to think that all investors would have all the necessary information in order to invest under uncertainty.

However, people act irrational and the presence and availability of information doesn't guarantee rational investment-decisions. This is where the cognitive biases and bounded rationality come to play.

Herbert Simon (1955) introduced the theory of bounded rationality. Bounded rationality is a concept used in analyzing individuals' decision-making process. It describes how the choices people make are determined by the knowledge that they do and don't have and their ability to evoke that knowledge when it is relevant (Simon, 2000). Bounded rationality occurs when the lack of perfect information is present. In these situations, the decision-makers are forced to make decisions with the existing knowledge and data available. (Roehrich, Grosvold and Hoehmose, 2014)

Harry Markowitz (1952) stated rules that would help to understand the behavior behind investor's decision-making. In his thesis he stated that investors act upon maximizing their discounted expected returns and that the investor desires the return of the investment and finds variance of the return as undesired. (Markowitz 1952, 77) These two rules would help to understand the behavior behind individuals' decision-making and the factors attributing to it; gain as much as possible and hope that the return doesn't vary.

In summary, despite of the knowledge and available information, investor's behavior under uncertainty is not easily explained. Sometimes the decisions being made can be very rational and other times the decisions end up being contradicting and irrational. The irrationality can be explained by personal characteristics or personal experiences. The following chapter introduces cognitive biases that affect to irrationality.

2.3 Irrational behavior under risk

In traditional finance, individuals are assumed to act rationally whenever making decisions. A rational investor is someone who combines existing information with new information gathered from various outlets by using Bayer's rule, which implies that weights placed on different pieces of information should be in line with the corresponding precisions (Daniel and Titman, 1999). However, when the

environment for the decision-making includes limited knowledge and limited capability to process all the available information, individuals simplify the situation via mental shortcuts so that the situation becomes easier to concept (Gigerenzer and Goldstein, 1996) In this chapter some basic cognitive biases are presented. The interest for studying the heuristics and biases in the history has been more focused on non-business situations. However, cognitive biases have gotten more and more interest towards analyzing the effects in business-related incidents. (Serfas, 2011) The biases presented in this chapter have been limited to consider only four: representativeness, overconfidence, loss-aversion and illusion of control. These four biases were picked based on the writer's conception of the biases presented with the literature regarding the phenomenon of irrationality in investment decision-making situations.

Cognitive biases are described as common mental shortcuts that the individuals use whenever the decision-making situation itself is too complex for the decision-maker (Simon et al., 2000). Cognitive biases contribute largely to the irrational behavior of an investor. Irrational behavior is emphasized when making decisions under uncertainty. Cognitive biases are unconscious mental errors that occur is various decision-making situations. They affect the decision-making process by simplifying strategies for information processing. (Serfas, 2011) Cognitive biases can lead to underestimation of risk since they affect individuals' perception of the given information (Morreale et al., 2016).

Tversky and Kahneman presented in their (1979) paper their observations of the irrational behavior in decision-making situations. The irrational choices were caused by the cognitive biases individuals subconsciously implemented. Cognitive biases affect individual's perception of information and as a result cognitive biases can lead to misinterpretation of risk or to overlook bad outcomes and uncertainty within their decisions. (Morreale at al., 2016) It is possible to decrease the effect of cognitive biases by increasing knowledge and expertise since numerous studies have shown that behavioral biases decrease with expertise (Kaustia, Laukkanen and Puttonen, 2009). Saphira and Venezia (2000) found in their research that a common cognitive bias, disposition effect, was significantly weaker amongst professionally managed

accounts in a major brokerage house compared to individual investors. This suggests that the knowledge and guidance of a professional reduces the effect of a bias.

However, it must be kept in mind that this education doesn't merely regard learning about cognitive biases to eliminate them. Kent and Nofsinger (2002) suggest that cognitive biases can be decreased by understanding and avoiding psychological biases, identify investment objectives and constraints, develop quantitative investment criteria, diversify investments and review and reallocate assets.

2.3.1 Representativeness

Economics have started to come forward with the theory of investors basing their valuation for future stock prices by determining them by the past values of the stock-price. (Malkiel, 2000) The investors therefore consider stocks that have poor (strong) performance during the past three to five years losers (winners). Representativeness can occur when investors buy stocks that have desirable qualities and consequently confuse good companies with good investments. The core of a good investment is that the chosen stocks increases more in value compared to other stocks – not that the company itself is good or has quality managers. (Baker and Nofsinger, 2002)

Tversky and Kahneman (1983) defined representativeness as an assessment of the degree of correspondence between an outcome and a model. Representativeness has a tendency to covary with frequency. Meaning, common incidents that happen frequently are more representative compared to rare occurrences that happen occasionally. (Tversky and Kahneman 1983, 8) Representativeness is a cognitive bias that leads people to make probability judgments that consistently violate the Bayer's rule (Chen, Kim et al. 2007). There is some evidence that would suggest that higher experience and financial motivation could lead individuals to rely less on the rule of thumb and act according to the rule of Bayer. The evidence for the latter is however quite inconclusive. (Grether, 1980)

Representativeness arises in the context of financial investments when investors prefer mutual funds or individual stocks with an above-average performance in the previous period (Serfas, 2011). Investors who act under representative assumptions

consider the past returns of the mutual fund or stock to be representative of what they can expect in the future. (Baker and Nofsinger 2002, 100)

Serfas (2011) states that numerous studies regarding the performance of mutual funds or individual stocks over time have concluded that financial investments that perform well in a given time period tend to perform worse in the time periods following. De Bondt and Thaler (1985) for example show that stocks with previous poor performance tend to outperform those with outstanding previous performance by up to 30 percent. It is suggested for investors who engage representativeness to place themselves outside of the situation and evaluate the situation objectively instead of placing emphasis on just a few qualities (Baker and Nofsinger, 2002).

2.3.2 Overconfidence

Overconfidence bias has been shown to exist in many decision-making situations. It is one of the most widespread cognitive biases and it is present when for example a person feels illusion of control over events or invulnerability to risk (Johnson and Fowler, 2011). Overconfidence of a decision-maker exists when they assess the given situation overly optimistic. Overconfidence causes the individual to be less willing to include additional information of the situation that contradicts their initial interpretation. (Busenitz and Barney, 1997) After initially receiving the data individuals are less likely to revise it and this leads to the presence of overconfidence bias (Simon et al., 2000). Individuals thus base their knowledge on the initial piece on information and due to overconfidence, are unwilling to modify their perception.

Oskamp (1965) initially defined overconfidence. Tversky and Kahneman (1974) divided overconfidence into two components. The first one was the decision-makers' overestimation of the precision of their knowledge and the second one was decision-makers' overconfidence of their higher intelligence compared to others. All in all, decision-makers' overconfidence affects so that individuals are convinced in their higher abilities to understand and interpret the situation and the outcomes following it.

Serfas (2011) linked overconfidence to cognitive biases in the context of financial investments by defining situations in which investors project overconfidence. He

stated that overconfidence occurs when the investor tends to believe that they are able to pick mutual funds or stocks that will perform better than the market and foresee the direction the market is heading. Overconfidence in this way leads to more active investing. However, one should be mindful of overconfidence since data strongly suggests that overconfidence leads to underperforming of the picked stocks or mutual funds. (Bazerman, 2006) Overconfidence can lead to insufficient diversification of one's financial assets and to the underestimation of risk (Serfas, 2011). Overconfidence can be reduced by simply trading less and diversifying more since overconfidence results in trading too much and taking too much risk (Baker and Nofsinger, 2002).

2.3.3 Loss aversion

Whenever an individual is faced with decisions on whether to invest in stock markets or not, there is always the possibility of gain and loss relating to the status quo. In these situations, more than often people tend to be risk averse in the fear of loss. (Tom, Fox et al., 2007) Prospect theory (Kahneman and Tversky, 1979) explains loss aversion as a situation when people are more sensitive to the thought of losing than they are gaining the same things. These things can be either money or the return of the investment.

The general hypothesis for all investors has traditionally been that they are reluctant to take risk, preferring sure returns rather than high variance probability returns (Puttonen 2011, 23-24). An attributing study to this area of research has been by Tversky and Kahneman (1991). They stated the basic intuition of loss aversion is that the outcomes below the reference state loom greater than the corresponding outcomes above the reference state. In short, loss aversion is the threat for changes that make things worse that is displayed larger in the individuals mind than the improvements of gain (Kahneman, Knetsch et al., 1991). Loss-averse investors therefore prefer safe returns and consequently are less tolerant to risk and handle the variance of the value of their investments.

2.3.4 Illusion of control

Illusion of control is a cognitive bias that is most likely to arise in the situations in which investment decisions are evaluated under uncertainty (Morreale et al., 2016).

Griffith (1994) introduced six cognitive biases attributing to irrational decision-making one of which was called the illusion of control, which occurs “when uncertain outcome of an activity can by itself induce in a person feelings of control over the uncertain outcome”. Langer originally introduced and defined illusion of control in 1975. Illusion of control happens when while making decisions individuals tend to overestimate their ability of having control over the outcomes of the event. This is highlighted when the conditions have factors of choice, familiarity, involvement or competition. (Griffith, 1994) An example of illusion of control is when an individual has a feeling of controlling the outcome by selecting the lottery ticket themselves and it just happened to be the winning one. (Matute and Blanco, 2014) Simply said an individual thinks that he or she can control the course of outcome based on their behavior when actually the situation itself is uncontrollable.

Illusion of control can be a consequence of skill-related factors. Skill-related factors refer to the situations in which there is a causal link between behavior and outcome whereas in situations of luck or chance these factors cannot be applied. (Langer, 1975) A factor attributing to illusion of control is unrealistic optimism. It is the phenomenon in which the individual expects others to be victims of misfortune, not themselves. (Weinstein, 1980) Individuals can make risky decisions because of the overly optimistic estimates of future (Duhaime and Schwenk 1985). These risky decisions can be for example risky individual stocks or mutual funds. There is a distinguished line between illusion of control and unrealistic optimism. Illusion of control refers to individual believing they have a control of the expected outcome whereas unrealistic optimism is generalized optimism for a possible outcome independent of the source of information (McKenna, 1993).

Recent research has proposed many evidence-based strategies that would help to reduce the illusion of control. A way to reduce the positive illusions, given that the probability of the desired outcome is high, is the probability with which the potential cause occurs and the existence of an alternative cause. (Matute, 2014)

3. RESEARCH METHODOLOGY

This research was done by using qualitative research methods. When studying a certain phenomenon and in the case of this research, the behavior of an investor, a

useful and appropriate way to approach the problem is to use qualitative research methods. Qualitative research methods are justified when the focus of the study is to get more information on the specific details of a certain occurrence (Metsämuuronen 2001, 13-15). This research is a case study. Case study is usually limited to consider only a few incidents and focuses on for example groups or individuals (Koskinen, Alasuutari and Peltonen 2005, 154-155).

A problem with qualitative research method is the fact that the results may not be as generalizable as wanted due to small sample size. In this context, the terms reliability and validity are introduced. Validity regards how well the results are correlated with the research objectives. Reliability means that the research should be able to be conducted again and the results are generalizable. (Koskinen et al., 2005, 254) The reliability of the research can be considered good since it can be executed again. Validity of this research can be considered good as well since the theory and empirical part are linked. However, one must keep in mind that the theory is an overall analysis and introduction of main theories rather than a specific description of irrational factors affecting the deviation from the Investment Plan's suggestion. In the case of this research the goal is to study a specific phenomenon and therefore a case study is justified as a data acquisition method. The reliability and validity are taken into consideration by making sure the interviewees understood the interview questions so that misunderstandings were avoided. In order for the results to be reliable a focal point in qualitative research shifts to the analysis of the researcher's position. The reliability of the results increases if the theory and the empirical evidence are correlated. (Eskola and Suoranta 2000, 208-212)

The data analyzed in this research is collected from interviews with savings specialists and the Vice President in the case company. Their answers are based on their expertise and personal experience with working as a savings specialist. Since the research is based on interviews with the savings specialists, it can be argued that the answers are dependent on the personal opinions of the investment specialists. However, an accurate way of analyzing the behavior of an investor is to interview people that are directly in contact with investors on a daily basis. A precaution taken to reassure the validity of the answers is the forming of the questions. Questions that regard the reasoning of an investor and the frequency of the irrational occurrences

are formed in a way that the questions don't specifically ask the opinion of the specialist rather what the investors have said to affect the decision being made.

In this research, the researcher created independently the interview questions and formed all conclusions entirely herself. The researcher conducted the interviews in the exact same format to each of the interviewees and the researcher herself was independent regardless of the results. The results were analyzed independently.

3.1 The case company's Investment Plan

A main focus for the empirical part of this research is to analyze the Investment Plan. It is used in every client meeting in the case company. Whenever an investor meets a savings specialist they fill a format called Investment Plan. The purpose of the Investment Plan is to help both the savings specialist and the investor to invest the funds of the client in the desired way. All meetings savings specialists have with clients are documented and each investment meeting is guided by the Investment Plan. The Investment Plan is constructed so that it can provide the best possible suggestion for the needs of each investor.

The Investment Plan begins with questions of the investor's demographical background. The investor must give their basic information e.g. full name, social security number and the details of the investment advisory appointment. Next, the investor is asked their family situation, education, profession and monthly income. The investor must also provide information of other financial assets and credit.

The following questions regard the objective and purpose for the investment; the investor must conclude how long they are willing to invest and what is the core purpose of the investment. The investor can choose from either short-term investing (0-3 years) or long-term investing. Long-term investing is further divided into three options: basic long-term investing, pension saving or investing for a child. In each case – whether the purpose of the investment is long or short-term – the investor must fill in the sum of money to be invested each month and the total financial assets to be invested. If the investor is seeking for long-term investing they must also conclude what is the goal for their investment - preservation, increasing or a strong increasing of the original value of the investment.

The examples for the investment options for long-term investors vary a little bit depending on the purpose of the investment. If the investor is interested in either traditional long-term investment or saving on behalf of a child, they are presented with the options and explanations for a possible investment (shown in Table 1). If the purpose of the investment is pension saving, the investment scenarios are a bit different (shown in Table 2). The explanations for risk profiles are the same despite of the purpose of the investment. The case company's risk profiles are careful, moderate, balanced, return seeking or highly return seeking. A careful investor is not very risk tolerant. They are mostly interested in minimizing the decrease of the value of the investment and are willing to tolerate the low return expectation. However, they must be prepared for a possible decrease in the value of their investment in short-term.

A moderate risk profile investor is more accepting to risk than an investor who categorizes himself or herself as a careful risk profile investor. A moderate risk profile investor has a moderate expectation for the returns of the investment and is looking for a development in the value of the original investment. They are able to tolerant a decrease in the value of their investment in a short-term in order for the value to increase in long-term. A balanced risk profile investor has an average risk tolerance and they have a decent return expectation for their investment. They are able to tolerant a moderate fluctuation in the value of their investment in both short- and long-term.

A return seeking investor has a high tolerance to risk. The investor is interested in high returns and is able to tolerant fluctuations in the value of their investment portfolio in both short- and long-term. An investor that is highly seeking of return has an extremely high tolerance to risk. The main focus for the investor is to maximize their return and they are prepared to invest for a longer time period in order to gain the desired return. The investor tolerates large fluctuations in the value of the investment portfolio and is willing to accept the fact that the value development of the investment portfolio can be negative even during longer time periods.

Table 1. Long-term saving and saving for child or grandchild, Risk profiles and explanations

Risk profile	Long-term saving or Saving for child or grandchild, original investment in all cases is 10 000 €
Careful	The investment can vary from 10 000 € to 13 300 € within a 6-year time period with a 90 percent chance
Moderate	The investment can vary from 9 500 € to 15 300 € within a 6-year time period with a 90 percent chance
Balanced	The investment can vary from 8 500 € to 18 800 € within a 6-year time period with a 90 percent chance
Return-seeking	The investment can vary from 7 500 € to 23 400 € within a 6-year time period with a 90 percent chance
Highly return-seeking	The investment can vary from 7 000 € to 25 900 € within a 6-year time period with a 90 percent chance

Table 2. Pension saving, Risk profiles and explanations

Risk profile	Pension saving, original investment in all cases is 10 000 €
Careful	The value of the investment can vary from 10 600 € to 15 200 € within a 10-year time period with a 90 percent chance
Moderate	The value of the investment can vary from 10 100 € to 18 600 € within a 10-year time period with a 90 percent chance
Balanced	The value of the investment can vary from 8 900 € to 24 800 € within a 10-year time period with a 90 percent chance
Return-seeking	The value of the investment can vary from 7 700 € to 33 500 € within a 10-year time period with a 90 percent chance
Highly return-seeking	The value of the investment can vary from 7 100 € to 38 400 €

	within a 10-year time period with a 90 percent chance

Next, the investor is presented with the question of how actively they want to participate in the management of the investment. The options are very little, quite actively and very actively. The first option means a solution in which the investor doesn't need to participate actively in the management of the investment. The second means that the investor wants to check in with their investment several times during a year and wants to discuss possible changes to be made for the investment with a savings specialist. The investor is also willing to make changes individually when needed. The third and final option means that the investor is interested in investing and actively follows the financial markets and is looking to decide about their investments individually and wants to make multiple changes in the investment portfolio.

Finally, when the savings specialist has gone through the Investment Plan with the investor, they document the agreed investment assignments and the provided investment advice.

3.2 Investment advisory

Investment advisory has gotten a lot of attention in the Finnish financial markets, especially after the financial crisis. Investment advice is described by the Financial Supervisory Authority (2016a) as a "personal recommendation to the customer for a transaction concerning a certain financial instrument". The investment advisor must always give advice to the customer with the customer's best interest in mind and a responsible advisor explains different product alternatives suitable for the individual needs of each customer (Financial Supervisory Authority, 2016a).

In order for the investment advisor to fulfill the desires of the customer and work within the given regulatory, it is required for the advisor to get information regarding the customer's financial situation, investment experience and the knowledge of the financial instrument or the investment service. (Financial Supervisory Authority, 2016a) The need for investment advice for a better result for investment is a commonly discussed topic. Studies have shown that financial advisors can help to correct the investors' behavioral biases and investment mistakes most commonly by

increasing diversification in the investment portfolio (Hackethal, Haliassos et al. 2012). Cassady (2010) with the experience of 33 years as an investment advisor states that one of the single biggest reasons to unsuccessful investments are the behavioral mistakes caused by investor's emotional response to events. She also states that the same result has been concluded from various studies as well and therefore investment advisors should be aware of this in order to correct these traps associated with decision-making. Saphira and Venezia (2000) showed in their research that financial assistance from a bank helps to improve the quality of the investments compared to individual investors' investments.

The financial crisis can be seen as the result of the failures and weaknesses in corporate governance arrangements that didn't fulfill their purpose as a safeguard against excessive risk taking (Kirkpatrick, 2009). After the financial crisis, actions have been taken in the regulatory of financial markets. MiFid 2 is the result of the regulatory changes due to the financial crisis. Its purpose is to improve the financial markets and investor's protection.

A current new regulatory affecting the investment advice services is the previously mentioned MiFid II. The MiFid II was supposed to become effective in the spring of 2017. However, European Comission (2016) released a statement on 30th of June 2016 that the new date of application for MiFid II will be 3rd of January 2018. European Comission released in the same statement that the transposition of MiFid II into national laws has been extended to 3rd of July 2017.

4. THE INTERVIEWS AND RESULTS

This chapter presents the results gathered from the empirical part of the study. The chapter focuses on the analysis of the interviews with the savings specialists and the Vice President. The goal for the interviews was to find out explanatory factors for the deviations that investors make from the suggestion of the Investment Plan. These deviations refer to the situations in which the investor is given investment advisory and decides to deviate from the suggested proposal for investment given by the Investment Plan and the savings specialist. This chapter is divided based on the interview question format that can be found in Appendix 1. The first chapter focuses on the background for the interviewees. The background includes the work

background of each interviewee and the number of clients they meet on a weekly basis. It also includes the characterization of the clientele and whether or not the purpose of the investment affects investor's behavior. The second chapter focuses on the usefulness of the Investment Plan and possible improvement ideas. The following chapter focuses on the importance of face-to-face meetings with the clients and important questions investors should ask from the investment advisors. The final part of the third chapter focuses on the questions investors should ask from the investment advisors when they make these irrational decisions and what is the instruction that the savings specialists have been given to handle these deviation situations.

The fourth chapter focuses on the analysis of the deviations and reasons behind investors' irrational behavior. The chapter consists of the frequency of the deviations from the suggestion of the Investment Plan, possible explanatory factors for the irrational behavior and whether the investment decisions are more or less risky than the original suggestion. The chapter also includes the justifications investors give to the savings specialists when they deviate from the suggested investment plan as well as what cognitive biases are present with the clientele as they make irrational decisions. The fifth chapter focuses on the possible effects the MiFid II will have on handling the situations in which investors deviate from the Investment Plan's suggestion.

4.1 Background

The investment advisors in the case company are called savings specialists. All of the interviewees work in the Helsinki Metropolitan Area. Savings specialist 1 is a male savings specialist that has worked as a savings specialist for five years. He has worked in the case company for all of the five years. The second savings specialist has worked as a savings specialist in the company for 11,5 years. Before this she worked as an insurance specialist for 13,5 years. The third savings specialist has worked as a savings specialist in the case company for little over a year and has worked as an investment advisor for little over five years. Each of the savings specialists meet around 10 investors on a weekly basis in investment meetings.

The supervisor's official title in the company is Vice President. The Vice President has only worked in the case company and has worked in the field of investing for over 10 years. The Vice President has also worked as a savings specialist in the company's private sector. She is a supervisor for the savings specialists that work in the company's corporate sector. She meets clients in joint meetings with the savings specialists in which she more or less participates in the discussion. The purpose for the joint meetings with the savings specialist and the client is leadership coaching. After the investment meetings the Vice President and the savings specialist discuss what went well and where the savings specialist can improve.

Table 3. Background of the interviewees

Interviewee	Gender	Work experience as an investment advisor	Position in the company
1	Male	5 years	Savings specialist
2	Female	11,5 years	Savings specialist
3	Male	5 years	Savings specialist
4	Female	> 10 years	Vice President

4.1.1 Characterization of the clientele and behavioral differences of different investors

The savings specialists 1 characterized his clienteles idiosyncrasy to be so called "do it yourself" –men that are for example taxi drivers or truck business owners that have a strong own opinion. They either act on their own opinion despite of the given investment advisory or follow the investment advisory. Savings specialist 2 characterized her clients to be medium-sized enterprises. Savings specialist 3 characterized his clientele to be smart and prepared but that they aren't investors who make investment decisions individually. They often need the reassurance or at

least some guidance in order to make investment decisions. He said that there are also clients that have a very strong opinion regarding what they want to do and thus don't need a lot of guidance. The Vice President categorized the clientele to be businesses and SME entrepreneurs.

When asked whether or not investors with different motives for the investment vary from each other based on behavior or risk taking, savings specialist 2 stated that investors vary very much depending whether they are individuals or companies. She stated that within company clients, investment behavior changes depending on if the investor is a small owner-entrepreneur or a larger company with a board that accepts all investment decisions to be made. Businesses need a large sum of "short money" in order to be able to carry out short-term payments. She stated that individual (household) investors vary from each other based on age. She said that organizations, foundations and associations vary from every other category since all of the decisions are made after a large and extensive decision-making process.

Savings specialist 3 as well as the Vice President stated that when the purpose of the investment is to save for a child, the risk propensity increases since it is justified to "add more risk" when the investment's time span could be up to 15 years. The increase of risk propensity is more justified when the saving is done monthly via for example child support.

Savings specialist 3 said that companies whose purpose is something other than investing (compared to for example holding-companies), have a low risk propensity. He described the investing to be merely a support function. Companies value that the money can be liquidated at any time. He said that pension savers and investors that save for a child are more likely to take more risk since the investment's time span is much longer.

4.2 The Investment Plan

When asked if the Investment Plan is sufficient enough to map out investors' desires, each of the interviewees agreed that it does take into consideration every relevant factor in the case of a "basic investor". Savings specialist 3 stated that the Investment Plan collects the relevant information about the investor such as risk tolerance and

willingness to take risk, expected return for the investment and the time horizon. He also said that it maps out well the total assets to be invested. However, savings specialist 1 stated that whenever the investor has a larger sum of money to be invested or has received heritage “the Investment Plan becomes quite stiff”. The Vice President stated that the Investment Plan is quite laborious but there are temples that help with the documentation. She also said that it has been modified many times so that it is in line with the regulations of Financial Supervisor and MiFid.

The savings specialists have started to use a broader tool instead of the Investment Plan called “The Investment Analysis” –tool. It is based of the Investment Plan but is broader and more detailed. Savings specialist 2 stated that a weakness with both tools is that they assume all of the money to be invested in the same risk level, same expected return and the same time span. She stated that there are situations in which “all of the money are invested in a low risk level and therefore the clients expected return isn’t realized”. She stated that in these situations the professional competence becomes highly relevant in order to fulfill the investor’s desires.

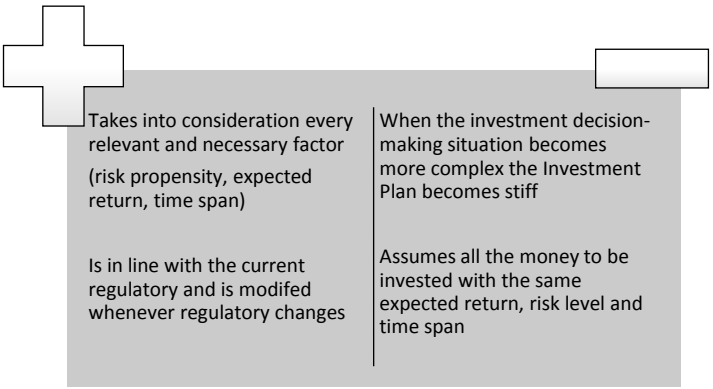

Figure 2. Pros and cons of the Investment Plan

4.3 Investment meetings

The importance of face-to-face contacts with client was highly valued amongst all of the interviewees. It is especially important in order for the savings specialist to create trust with the client. Savings specialist 3 said that his previous employer used remote meetings with clients and he felt they are more faceless and it is much more difficult to build trust. He said that a benefit of face-to-face meetings is that he can easily read the gestures and interpret the investor better as well as explain things

thoroughly compared to online meetings. He said that demographically it is important to transact face-to-face with elderly since they are often scared of technology.

Savings specialist 1 said that many sales wouldn't have been made if the meetings hadn't been face-to-face. Savings specialists 1 and 2 as well as the Vice President emphasized the importance of the first meeting to be face-to-face. The first meeting is important to be held face-to-face since during it, the savings specialist can thoroughly survey the clients' needs and factors affecting investment decisions, whether it ends up being in line with the suggestion of the Investment Plan or being completely tailored to the client's needs. The later contacts and check-ups with the clients can be done online or via phone. The Vice President stated that if the investor wants to later invest more money to the same solution and the investment profile hasn't changed, additional investments can be done online. Monthly saving can also be easily done virtually.

Savings specialist 3 highlighted that the future trend for investment advisory is without a doubt more and more online. He said that investment advisory is heading in that direction at a growing pace and the pace is dependent on how quickly different operators fix their legal issues. He ended with saying that the part of face-to-face meetings will be narrower in the future but it will never disappear. Each one of the interviewees emphasized that meetings are arranged however the client wants. The whole point is to ensure that the investor is informed and that they end up feeling good about the investment.

4.3.1 Important questions investors should ask investment advisors

When asked what the interviewees thought were the most important questions for the investor to ask them in investment meetings, the answers focused on riskiness of the investment product, liquidity and costs. Savings specialist 1 said that investors often have heard of some index fund from family and friends and aren't fully aware of the riskiness of the investment product. In these situations it is important to go through the riskiness of the investment product especially if the investor's risk tolerance is low. Savings specialist 2 stated that it is important for the investor to ask how the portfolio reacts in crisis. For this, the company has a stress test that demonstrates the volatility of the portfolio. The Vice President emphasized the same notion as she

said that it is important to demonstrate and show to the investor the fluctuations in the value of the portfolio. This way the investor is aware of their tolerance to handle fluctuations in value.

Savings specialist 1 said that the investor should keep in mind that the costs associated with the fees and portfolio management costs are focused more on the beginning, which is why it is not wise to liquidate the investment in the first couple of years. Savings specialist 3 argued that it is important to pay attention to costs but one should keep in mind that by paying them, the investor gets valuable services in return. He emphasized that active financial management is much more valuable than passive.

Savings specialist 3 emphasized that it is important to make sure that additional investment go together with the already existing investments. He said that it is important that the portfolio is whole. For example, if the investor has a large emphasis on Russian shares it wouldn't be wise to invest in additional Russian shares rather than to modify the portfolio in a more "smart way". The Vice President and savings specialist 2 stated that it is important for the investor to be aware of how long it takes to liquidate the investment. The Vice President said that it is important to explain what happens if the investor need the money earlier than expected. Savings specialist 2 said that it is important for the investor to be aware of the "horror scenarios" since financial markets are often uncertain and many occurrences can destabilize the balance.

4.3.2 Important questions investors should ask when deviating from the suggestion

This chapter regards the questions investor should take into consideration and revise after making a contradictory investment decision with the suggestion of the Investment Plan. All of the answers interviewees gave, emphasized the importance of revising the relevant factors about the investment product. These relevant factors include for example riskiness and liquidity of the investment product. Savings specialist 1 stated that despite the revision the investor has already made up their mind so the usefulness of revision is questionable. However, savings specialists always revise the important questions about the investment product after a deviation.

Savings specialist 2 added that whether or not the investor deviates from the suggested investment proposal, riskiness and liquidity are important factors that all investors should be interested in. Savings specialist 2 stated that investors who make these deviations are mainly investors that prefer Finnish stocks and therefore the investment decisions are riskier. She said that these investors do know that the riskiness increases when investing to Finnish company stocks.

The Vice President said that one action the savings specialist should take is to revise the given answers with the investor. She suggested going through the investor's answers until they conclude the part in which the suggestion has failed. She said that the investor should look for questions they have understood incorrectly or answered in an inaccurate way. If the investor ends up seeking for more risk, the investor has initially probably estimated him or herself incorrectly. However, if there aren't any misunderstandings, the investor could move forward with smaller monthly investments and this way diversify the investment.

4.3.3 Handling of an investment meeting after deviation

Savings specialist's main goal for the investment meetings is to guide and advice the investor with their best interest in mind. Whenever an investor deviates from the suggestion of the Investment Plan, the savings specialists revise the main focal points of the investment product. Savings specialist 1 said that he wouldn't let a client sign any papers without revising the main points. Savings specialist 2 emphasized that after a deviation it is important to agree on how to continue after the meeting whether it is after every 6 or 12 months. Everything is done based on savings specialists' guideline, which is to respect the client's view and opinion. Savings specialist 3 added that the given proposal for investment isn't always right. The case company's suggestion for the proportion of Finnish stocks is x percent. He explained that if Finland's proportion of the entire world's stock markets is 0,3 percent it is justified to question if the proportion of Finnish stocks in the portfolio needs to be 20 percent. He said that it could be easily justified to leave Finland entirely out of the portfolio.

The Vice President stated that the most typical scenario is that the client owns many direct stocks even though they are moderate risk takers. In these situations the right

solution isn't always to sell the stocks because of tax ramifications. The proper solution can be that the client little by little sells the stocks. It all depends on the situation since there are many other factors to be taken into consideration besides risk profile. She continued by explaining that investment advisory can never really go wrong. The purpose of the meeting can be merely to help the client to be aware of their investment profile and to inform the client. She mentioned a specific meeting in which the client described the investment meeting to have been "a mental investment meeting". The client was very independent and the meeting helped him to realize his investment strategy and reasoning behind his actions. Sometimes only having to think about previous investment decisions helps to clarify things for the future.

4.4 Irrational deviations from the Investment Plan and explanatory factors

The frequency of the deviations from the suggested investment plan is around 10 to 20 percent of all the appointments according to savings specialist 1 and 2. This equals 1 to 2 clients per week who deviate from the suggestion. Savings specialist 3 stated that if the investor is new and doesn't have previous investments, the deviations occur less. He stated that the most common example is that the investor has a large emphasis on Finnish stocks and that these stocks don't necessary fit to the overall whole of the portfolio. She stated that there are two examples of irrational investment decisions. First one being that the investor is at loss with their investment and they don't want to sell. The second one is that investors prefer owning known domestic stocks regardless of their riskiness. The riskiness of Finnish stocks is explained by the fact that Finland is a small country that is highly vulnerable to international financial crisis. The allocation of the portfolio often tends to be narrower and the weight of domestic stocks is larger than the suggested plan, states savings specialist 3.

Savings specialist 2 said that during the last year, there have been many major occurrences in the international financial markets that have delayed investment decisions for many. These occurrences include for example Brexit and the recent presidential elections in USA. The Vice President reported that individual or household clients deviate less from the suggestion since their backgrounds and affecting factors are carefully mapped out. She said that companies could often

deviate more from the suggestion because the emphasis on their investments is usually in bonds rather than stocks.

4.4.1 Factors affecting investors irrationality

When presented with the question of whether there is some phenomenon that drives investors to deviate more from the suggested plan the answers were quite similar. Savings specialist 1 and the Vice President said that whenever something happens in the financial markets investors tend to be more active. Whether it is a financial crisis, overall uncertainty or expectations of something big to happen in the near future. Investors then seek for the banks reassurance to their own conclusions.

Savings specialist 2 stated that phenomena that drive investors to be more irrational are bad previous experiences. Whenever an investor has suffered badly in their previous investments it affects to their future behavior. The bad experiences are most of the time happened because the investor panicked and sold the investment at the wrong time. She stated that companies don't want to tie their financial assets for a longer period of time, which is why they keep a lot of their money in bank accounts.

Savings specialist 2 said that when a savings specialist attends to a meeting that the client has with the bank without telling the client beforehand, investors usually aren't prepared to that, and thus need more time to think. Savings specialist 3 shared the same notion that all of the clients he meets on a daily basis aren't necessary potential at all and that sometimes he goes to meetings that the client has with the bank. He said that the clients don't always know that an investment advisor attends the meeting. He stated the reason to these meetings is that "clients come to bank for a loan whereas investment products must often be sold". Savings specialist 2 said that in addition to the factors above, costs could often affect to the investment decision. Savings specialist 3 said that one of the most common reasons to the deviation is the fact that investors aren't fully aware of what investing truly is. Investors tend to sell their investment in a panic whenever the markets fall.

One of the most important factors that affect the deviation that arose in each one of the interviews is the advice from friends and family. Relative's advice are more valued and trusted rather than professional advisory from an expert.

One explanatory factor that is extremely common amongst Finnish investors that arose in each interview, is the ownership of Finnish shares. The Vice President explained it to be a common national matter. Finnish investors know well Finnish companies and therefore feel different about them. This feeling overshadows investor's rationality. The investor can be a moderate or low risk taker but owns risky Finnish stocks. An explanation to his phenomenon can be that the investor has inherited the stocks and therefore haven't themselves invested their own money. It is common that for example Finnish investor's grandfather has worked in Orion and has owned its shares. Then after the grandfather has passed away the investor has inherited the shares. This way the shares have sentimental value to the investor and the shares can remind the investor of their late grandfather. She added that another explanatory factor is the desire to get dividend. She said that Finnish investors value companies that pay good dividend, which makes the investor to look past the market value and focus on the company's ability to pay dividend. Savings specialist 2 shared the same notion as she stated that investors often seek for companies with an ability to pay good dividend.

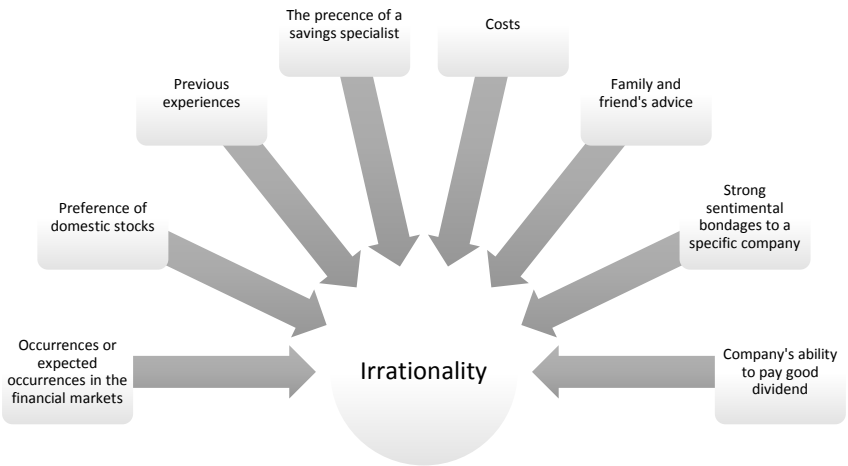

Figure 3. Explanatory factors for irrationality

4.4.2 General traits of irrational investors in the case company

The answers to the question of whether the investment decisions end up being more or less risky didn't have a unity. Savings specialist 1 said that the investment decisions end up being riskier in roughly "9 out of 10 incidents". Savings specialist 3 agreed on that and argued that the decisions are almost always without exception

riskier. He continued by explaining that this is due to the fact that Investment Plan's recommendation is based on global diversification. Thus whenever the investor prefers to have more domestic stocks in their portfolio, the diversification decreases and the riskiness increases. Savings specialist 2 said that she didn't feel there was any trend on whether or not the investments are more or less risky. The Vice President argued that the investment decisions tend to be less risky since for example before Brexit investors sold their stocks in a rapid pace and invested in safe heaven products in fear of a crash in the financial markets.

When asked if the irrationally acting investors have any common features the answers were divided. Savings specialist 1 answered that a stereotype for an investor that deviates from the Investment Plan's suggestion is "a male that is over 40 years old". Savings specialist 2 said that the only factor she felt relevant is previous experiences the investor has had with investing. She continued by explaining that "investors who don't have previous experience with investing don't understand how financial markets work which makes them act more irrational". She added that a common belief is that young people are more willing to take risk. However, she has encountered plenty of older investors that have a high-risk portfolio who aren't afraid of risk due to their experience and knowledge. Whenever the investor has experience they don't easily get flustered.

Savings specialist 3 argued that there are two different stereotypes for irrational investors. Either they are younger defiant males or older people who are rooted in a specific way of doing things. The first stereotype thinks that they can "beat the markets" and the latter is used to investing in a specific way and is not willing to change it. The Vice President said that one factor is the investors overall situation in life. If there are many uncertain things uncertain in the investor's personal life, they are less likely to tolerant the risk that comes with investing.

4.4.3 Cognitive biases

The presence of cognitive biases in the clientele of the case company is strong. All of the given options for cognitive biases in the interviews were more or less present. As savings specialist 2 and the Vice President stated all of the presented biases are present during irrational investment decisions. Investment specialist 1 said that within

his clients the representativeness bias is the most common. He added that it is a bias that is very hard to affect. Once the client interprets that a specific stock or fund has a good previous performance it is merely impossible for the investment advisor to try to advice the investor otherwise, even if the product isn't suitable for the client's investment profile.

Savings specialist 2 figured that the most present bias is the overconfidence bias. The reason that the overconfidence bias is the most present is because of her clientele. Her clients are mostly organizations that have a strong board. Their investments are almost always to direct stocks and they look for companies that pay good dividend. In old organizations, the board usually consists of people that have been members of the board for decades. In these organizations the investment decision is made entirely by the board despite of the given advice. In summary, they have invested previously in a specific way and no advice can change it. She added that loss-aversion is the second most common bias. She explained that this is due to either low risk tolerance or a board that is very divided. She said that however the client decides to invest, the advisor should always respect the client's decisions.

Savings specialist 3 said that the most common biases are representativeness and loss-aversion. He added that investors who are overconfident or have an illusion of control invest independently and that they don't necessarily seek for guidance from investment advisors. These clients aren't the cores of the clientele. The Vice President shared the same opinion as she stated that overconfident investors pick stocks straight from the market rather than invest to funds that someone else maintains. She said that the most common bias is loss-aversion. She added an interesting notion as she said that illusion of control is uncommon since financial markets are global and if an investor follows financial markets they should be aware that anything can happen to anyone.

4.4.4 Investors' justifications for the deviation

The explanations investors give to deviation are mostly based on the fear of unknown and uncertainty. Savings specialist 1 emphasized the importance of previous personal or friends' experiences. In these situations the advisor must have a conversation of whether or not the specific investment product is suitable for the

client. Savings specialist 2 said that the most common explanation for the deviation is that the client wants to think. These situations could be avoided if the client would come to the meeting prepared and aware of what they want to do and what they are willing to do. Savings specialist 3 said that there isn't necessarily a reason rather than merely a feeling the client has. The clients aren't always able to explain the reason for the deviation.

The Vice President said the most common explanations investors give are distrust to financial markets, unwillingness to take risk, emotional and personal connections to specific stocks. An emotional connection can be that an investor has inherited Finnish stocks and has had them for a long time. This way the bondage between an investor and the stock becomes so powerful that it explains irrational investment decisions. One justification is the preference of companies that pay good dividend, which is also one of the explanatory factors affecting irrationality.

When asked if the savings specialists feel there were some reasons for the deviation that the investor didn't admit, savings specialist 1 said that usually the reason is that the investor is ashamed to admit that they have had a very bad investment experience. The investor is scared and is ashamed to admit that. Savings specialist 2 argued that whenever the investor hasn't previously invested, the fear of losing money can be the real reason for the deviation. She added that another factor can be possible horror scenarios the investor has heard. Thus they are too afraid to admit that they are afraid. She explained that in these situations she tries to comfort the investor by sharing personal experiences and suggests monthly savings. "You need to go through everything so thoroughly that when the investor leaves the room they know exactly that when prices fall, one gets twice as many shares with the same amount of money". Savings specialist 3 said that the main reasons are often cost structure or that there is someone else giving advisory to the investor. This advisory is usually from someone from the investor's close circle.

The Vice President said that one explanation is that Finnish people aren't too comfortable with talking about their financial issues or wealth. Another explanation to the deviation is that Finnish investors have a tendency to be polite and nice to

everyone. This leads to the situation in which the investor has financial assets in different banks.

4.5 New regulatory MiFid II and its effects

MiFid II was originally due to become effective in the spring of 2017. However, the new application date will be on 3rd of January 2018. The interviewees' answers on the effects of the MiFid II to investment meetings focused on the enhanced emphasis of costs. Savings specialist 1 said that MiFid II can affect irrational deviations since costs will be highlighted and therefore the client may start to overemphasize the different costs amongst different banks. Investor should pay attention to costs but they should also pay attention to the real attributes of an investment product. Savings specialist 2 highlighted that the instructions for investment advisors have changed due to MiFid. The investment advisor needs to pay attention to tax issues. This way the investment advisors can no longer unequivocally advice the client to sell rather than the advisor must pay attention to the whole. She added that investment advisory will be more and more transparent and within the client's best interest.

Savings specialist 3 stated that despite the application of MiFid II investors will continue to make irrational investment decisions. The investors are free to do however they please, the function of a savings specialist is to merely support and guide the client. He said that the changes won't be too radical which was also mentioned in the Vice President's interview as she stated that the case company has continuously improved and specified the process of investment advisory, documentation and transparency. This way the company has prepared itself to the application of MiFid II.

An additional focal point that arose from the interview with the Vice President was whether or not the highlighting of costs will affect investment decisions. The Vice President argued that since the industry is so competed and costs are something that the investor finds from each competitor. Thus the cost structure won't directly affect the investment decision. She added that one effect will be that investment advisors need to have so called "proven and legitimate professional skills". The standards and requirements for investment advisors will increase. Investment instruments in

financial markets are increasingly complex. This requires investment advisors to be well-informed and educated in order to be able to serve the client.

5. SUMMARY AND CONCLUSIONS

In this final chapter all of the main points of this thesis are summarized as well as the research questions will be answered. In the end further research suggestions are presented. This thesis studied the phenomenon of irrational investment decisions in the clientele of the case company. This research focused on the analysis of irrational investment decisions of an investor despite of given investment advisory. This irrational behavior refers to situations in which the investor deviates from the suggested proposal for investment. The investors in this thesis have received investment advisory from the case company's savings specialist. The first chapter of this thesis included the introduction of the topic as well as the objectives and goals of this research. In the first chapter the research questions were formed as well as the limitations of the research. The second chapter introduced the theoretical background. The theoretical background included the theories of risk, investment decision-making and cognitive biases. These theories formed a base for the understanding of the topic of this research. The third chapter introduced the research methodology. It included the analysis of the Investment Plan and the topic of investment advisory. In the fourth chapter the empirical evidence of this thesis was analyzed. The analysis was done by interviewing investment advisors in a large financial service group. The interviews gave a comprehensive understanding on the matter of irrationality. All of the interviewees gave new perspectives to understanding irrational behavior of an investor. The answers of the savings specialists' were in line in some questions but in some questions their opinions differed.

Investors do make irrational decisions in financial markets. Results show that main explanatory factors for the irrationality are psychological and behavioral factors, for example cognitive biases or previous experiences. These factors are often dependent on the individual and are highly influenced by the personal characteristics of an investor. Cognitive biases are present in decision-making situations amongst Finnish investors. Results show that irrational investment decisions do occur despite of given investment advisory, and this can often be seen as the result of investors'

strong confidence in themselves or the strong effect of past experiences. Next, the research questions will be answered and thus the question of why investors don't follow the guidance, will be answered. The first research question was as follows:

"Do investors of the case company deviate from the Investment Plan's recommendation and if they do what is the frequency of this phenomenon?"

The answer to the main research question is that case company's investors do deviate from the recommendation of the Investment Plan. The frequency of those occurrences is from 10 to 20 percent of all of the clients savings specialists meet on a weekly basis. Meaning 1 to 2 clients of each savings specialist per week.

The first sub research question was:

"Why do the investors of the case company make these decisions and what factors affect to this deviation?"

The answer depends highly on the investor. The most common explanation to the deviation is the preference of Finnish stocks, which makes the investor look past the actual risk level of the investment product. This deviation could be classified as irrational if the investor is a moderate risk profile investor but decides to invest in high-risk Finnish stocks. Another explanatory factor is the preference of companies that pay good dividend. These investors are most of the time organizations that aren't looking for companies with outstanding market value rather than ability to pay good dividend.

Previous experiences affect investors' behavior. An experienced investor won't get flustered in financial turbulence because they know the "principles of investing". Investors with bad previous investment experience are scarred from the loss and therefore can often resort to low-risk investment products. Previous experience can be seen as the way of doing things for several decades. Meaning, the investment decisions are done based on the fact that "things have been done like this previously and will be done so in the future as well". These investors are usually organizations that have a board of members with decades of membership.

The source of money or the origin of the investment has a significant effect on the irrationality. The deviations are more likely to occur whenever the investor has inherited domestic stocks. This way the investor has developed sentimental bondages to the investment. A result that arose from all of the interviews was that the timing for the investment affects largely to the investment decision being made. Whenever there is uncertainty in the financial markets, investors tend to act more irrational. A notion from the results of this study can be that even though the investor thinks they are acting rationally by reallocating their financial assets in order to minimize the decrease in the value of their investment portfolio, it can actually be irrational if the investor gets flustered and can't wait until the markets start to rise again. However, this notion should be interpreted with caution.

Results show, that organizations seem to deviate more from the Investment Plan's suggestion compared to individual investors. This can be seen as the result of companies perceiving themselves more competent and have a high confidence in their own abilities. Cognitive biases affect to irrational investment decisions and the presence of a bias is dependent on the investor. Most common ones are overconfidence, representativeness and loss-aversion.

"Are the investment decisions in these cases more or less risky that the original recommendation?"

The results from the interviews suggest there isn't a trend in whether the investment decisions end up being more or less risky. It all depends on the investor and their previous experience and preferences. Investment decisions tend to be more risky when the investors are more confident in themselves whereas organizations tend to be very careful with their investments. Uncertain investors tend to invest in low-risk investment products in uncertain times. However, it can be argued that the constant reallocation of financial assets is actually risky since the investor is so susceptible to changes in financial markets. During the last year, financial markets have responded in an unexpected way to uncertainties. The result of Brexit and the election of president Trump didn't affect financial markets as they were expected to. This unexpected irrationality in financial markets can reflect to the behavior of investors and this way increase their unpredictable behavior.

It would seem so that investment decisions tend to be more risky when there aren't any uncertainties in the financial markets and less risky whenever something is expected to happen in the financial markets. However, it can be seen that the investment product itself is less risky, for example a government bond, but the act of reallocating financial assets frequently can actually be considered risky. This way the investor can be seen to act irrational when they seek for low-risk investment products but don't have the patience to wait for the markets to rise. These investors aren't usually aware of the principles of investing.

"What does the savings specialists think are the most important questions the investor should ask when they deviate from the suggestion of the Investment Plan?"

Interviewees' answers were focused on the importance of liquidity, riskiness and costs. In addition to this the investor should ask how the specific investment product reacts in times of financial crisis or uncertainties. It is also important to revise the given answers especially if the investor deviates from the suggested plan for investment.

A proposal for improvement for the Investment Plan would be to change the order of the questions presented to the investor. As the interviews concluded, investors rarely are forced to think of their investment profile and this way they can end up making quite contradictory investment decisions with their investment profile. If the first thing the investor needed to think in investment meetings would be their risk profile, the phenomenon of deviation from the Investment Plan's recommendation could reduce because the investor would be aware of their risk profile during the entire meeting. Another improvement idea would be to have a separate Investment Plan for companies and individuals. Companies seem to deviate more from the suggestion of the Investment Plan and therefore it could be appropriate to have a completely separate Investment Plan for them.

In conclusion, investors do deviate from the suggestion of the Investment Plan even though the suggestion is based on a tool that takes into consideration every relevant factor and despite given investment advisory. Investors don't follow the suggestion of the Investment Plan and act irrationally due to personal sentimental bondages to a specific stock, the desire to invest in well-known and domestic companies' stocks,

past experiences, other motives than to invest in companies with good market value, timing of the investment and the advisory the investor gets from their family and friends. The investor's investment behavior is affected by their risk behavior. Risk behavior is mostly influenced by investors' past experiences. The generalization of these results should be interpreted with caution and one should keep in mind that the results may not be generalized to all investors. In order for the results to be generalizable further research should be done.

5.1 Further research suggestions

Suggestions for further analysis of the specific topic of this thesis would be to expand the population of the interviewees. There could be more interviewees from different offices around Finland rather than to limit the savings specialists to only the ones working in the Helsinki Metropolitan Area. Since the case company is a large international financial service group it would be interesting to see whether there are differences if the regional limits were expanded. The research could be done on the topic of this research or another objective could be to analyze whether this "falling in love with domestic stocks" is present in other countries as well. Another valuable addition would be to directly interview the investors making these deviations. This would have to be done by asking each investor for their permission to be contacted or to answer a questionnaire. This interviewing of investors could reveal more detailed information about their behavior and to see whether there are some common factors amongst the interviewees.

Another proposal would be to study how companies' and individuals' investments vary from each other and if a specific cognitive bias is more present with decisions made by companies. This cognitive bias could be for example overconfidence. Since digitalization is well on its way to be utilized in investment advisory, the last suggestion for further research would be to study the effect of digitalization to investment advisory. The study could focus on how digitalization affects investment advisory and whether it increases or decreases these irrational deviations from the suggested plan for investment.

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APPENDICES

APPENDIX 1. Interview format

Interviews with the savings specialists were held in Helsinki on 14th of November 2016. Interview with the Vice President was held via phone in Lappeenranta on 15th of November 2016.

Interview questions:

Background

1. For how long have you worked as an investment advisor/ savings specialist? How many of those years have you worked in this company?
2. How many investors/potential investors do you meet on a weekly basis?
3. Can you characterize your clientele?
4. Does the purpose for the investment affect the investors behavior (short-term, long-term, saving for a child and pension saving)?

Usefulness and improvement recommendations for the case company's Investment Plan

5. Do you think that the Investment Plan is adequate enough for its purpose or do you think that it needs improving? For example, do you feel that it doesn't take into consideration some relevant factors?

Two-way communication between the client and the case company's savings specialist

6. What do you think are the most important questions for the investor to present to you? For example what should they ask from you in order to utilize your expertize and make wise decisions?
    a. Riskiness of the investment
    b. Liquidity of the investment
    c. Something else, what?
7. What do you think is the importance of an open dialogue and face-to-face meetings?
    a. Not that important

b. Quite important
c. Highly important
d. Something else, what?

Irrationality, reasons for it and explanations for the behavior

8. What is the frequency of the occurrences in which an investor deviates from the Investment Plan's and your professional suggestion for the investment to be made?
9. Is there a certain phenomenon during which investors tend to act more irrational? For example uncertainties in the financial markets.
    a. Can you name a certain occurrence during which this irrationality has happened amongst investors?
10. Do the investments made tend to be more or less risky compared to the original suggestion based of the recommendation based on the suggestion of the Investment Plan and your professional suggestion?
11. Do these people have any common factors? If so, which of the following:
    a. Profession / Education
    b. Sex
    c. Age
    d. The position (individual/entrepreneur)
    e. Something else, what?
12. How do the people justify the deviation from the investment suggestion (referred in the question no. 6)? What do they say is the reason for the change of heart?
    a. Do you think there are some reasons that the investor didn't mentioned that you think actually affected the deviation?
        i. If yes, can you name one (or more) of these reasons?
13. Can you say whether you think one (or more) of the following factors affected the deviation:
    a. The investor deviated to a specific mutual fund or individual stock because of it has had an outstanding performance in the previous years (Representativeness)

b. The investor thought they were more capable of predicting the good investment and were confident that they were able to pick the mutual fund or individual stock that will perform better than the market (Overconfidence)
c. They deviated because they were unable to tolerant risk and were looking for more safe investment in the fear of loss (Loss-aversion)
d. The investor overestimated their ability have control over the outcomes of the investment's value development, for example thought that they are untouchable and misfortune doesn't occur to them (Illusion of control)
e. Something else, what?

14. What do you think are the most important questions for the investor to present to you? Meaning, what should they ask from you in order to utilize your expertize and make wise decisions during these irrational occurrences?
    a. Riskiness of the investment
    b. Liquidity of the investment
    c. Something else, what?
15. Are you and if you are then how are you instructed to act in these irrational situations (referred in the question no.6)? Does the investment advice meeting vary from one where the investor ended up making an investment decision as the Investment Plan suggested?

The anticipated effect of the new regulations regarding investment advice (MiFid II)

16. Do you think that the MiFid II will have an effect on these situations (referred in the question no. 6)?