TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance Department of Economics and Finance

Sami Arnkil

RESPONSIBLE INVESTING AMONG YOUNG FINNISH ADULTS

Bachelor's thesis

Programme International Business Administration, specialisation Finance and Accounting

Supervisor: Pavlo Illiashenko

Tallinn 2020

I hereby declare that I have compiled the thesis independently and all works, important standpoints and data by other authors have been properly referenced and the same paper has not been previously presented for grading. The document length is 8328 words from the introduction to the end of conclusion.

Sami Arnkil

(signature, date) Student code: TVTB166376 Student e-mail address: sami.arnkil@gmail.com

Supervisor: Pavlo Illiashenko: The paper conforms to requirements in force

.....

(signature, date)

Chairman of the Defence Committee: Permitted to the defence

. . .

.....

(name, signature, date)

TABLE OF CONTENTS

ABSTRACT	4
INTRODUCTION	5
1. THEORETICAL FRAMEWORK	8
1.1 Responsible investing	8
1.1.1 Short history of responsible investing	8
1.1.2 Main categories	9
1.2 Strategies and instruments of responsible investing	10
1.2.1 Strategies	10
1.2.2 Instruments	
1.2.3 How to identify a responsible investment?	14
1.3 Impacts of responsible investing	16
1.4 Previous studies and hypotheses	
2. DATA AND METHODS	
2.1 Survey	
2.2 Data	21
2.3 Statistical analysis	
3. RESULTS AND DISCUSSION	24
3.1 Results	
3.2 Discussion	
CONCLUSION	
LIST OF REFERENCES	31
Appendix 1	34
Appendix 2	

ABSTRACT

Responsibility is a growing megatrend in investing. The aim of this study is to investigate the decision making and attitudes of young Finnish adults aged 18–30 towards responsible investing. Quantitative method is used in order to collect the data and linear regression analysis and cross tabulation are used for statistical analysis. Using a survey data from a sample of Finnish individuals (n=98) the study finds that responsibility is an important aspect for young adults. The study finds that both the gender of the participant and the higher education show weak statistical significance when modelling the time used to inspect the responsibility of the investment before making the investment decision. The basic knowledge about investing shows strong statistical significance when modelling the awareness of responsibility of the investment and the gender of the participant sprefer an active investing strategy and the environmental issues are the most important factor of responsibility for the young Finnish adults.

Keywords: Responsible investing, Socially-responsible investing, ESG factors

INTRODUCTION

Sustainability is nowadays a global megatrend. The effects of climate change, deforestation and the loss of biodiversity can be seen throughout the world. Cheap labor and the throw-away society we currently live in have been criticized. Child labor and corruption are unfortunately common phenomena in countries from where multiple everyday goods, such as coffee, originate. In addition, unforeseen global phenomena bring even new challenges. At the time of writing this thesis the COVID-19 pandemic is a serious threat not only to global health but also to the economies. These issues are gaining more and more attention from people and the media on an everyday basis.

The problems mentioned above are tried to be solved on a national, EU and global level for example by setting goals to transit towards low-carbon economies. It is clear that the companies operating in different fields have a great responsibility in achieving these goals. However, it is also important that the companies act responsibly. A responsible company treats its employees, associates and the environment fairly. Responsibility includes areas such as ethical activities, good governance, relations to stakeholders, management of human resources and other environmental and sociological matters. (Pesonen 2011, 126) The companies in Finland (and also elsewhere) have taken this into account and it is seen by the actions of them. For instance, in the field of transportation, public limited company Finnair, which is government owned for the major part, has made plans on how to make the company's activities friendlier for the environment. These plans include, for example, increasing the usage of biofuels, enhancing the fuel consumption by better weight-management, emission compensation and reducing plastic as a material. The goal for this company is to reduce emissions from the level of last year by 50 percent by the year 2025. They are also trying to reach carbon-neutrality by the year 2045. (Finnair 2020)

Nowadays obeying the laws and doing the minimal amount of work towards higher rate of responsibility might not be enough for the consumers or for the investors either. People can choose freely what to do with their money and what to buy for any reason, which naturally has an effect on the firm and its profitability among other matters. For example, environmental, social and governance issues and how the companies handle them play more often an important role in the mind of the customer – buying products that are produced unethically is not appealing in the world of today. Also, the investors have the power and the possibilities to affect the companies at least

in some scale by investing in them and later managing their portfolios for different instruments. Institutional investors have formulated specific guidelines in order to take the environmental and social aspects and good governance into account when making an investment decision. However, what about the small investors? How much do they think about the responsibility when making an investment? Are the small investors interested in and ready to find out the information of the companies' values and actions or is it only profit and traditional numerical key ratios that matter?

The aim of this thesis is to find out the decision making and attitudes of young Finnish adults towards responsible investing. This research focuses on adults aged 18–30 because in the changing field of investment in the future they are the ones making the big investment decisions.

The main research questions for this study are:

- 1. How does the responsibility aspect influence the investment decision of a Finnish adult?
- 2. How likely the investor is doing research before making the investment?
- 3. Which factor of responsibility do the young investors value the most?

Based on the aim of this thesis, literature and the previous studies two hypothesis are formulated: 1) The investors who have more basic knowledge about investing use more time inspecting the responsibility of the investment and 2) social aspects are the most valued factor of responsibility among the young Finnish adults. The empirical study is conducted using a quantitative method and the data for the research is collected via an anonymous online survey. The survey includes altogether 17 questions intended to map the socio-economic background of the participants, their investment activities and their perception of responsible investing. For analyzing the data from the survey results nine models are created using multiple linear regression analysis. Cross tabulation is also used.

The thesis consists of three parts. The first part includes the theoretical framework in which I will take a closer look at the term responsible investing, its history and the main categories the responsible investing can be divided into. I will also examine the different instruments and strategies of responsible investing and its advantages and some of the risks that an individual investor might consider before making the investment decision. Previous studies on responsible investing are also highlighted. The second part is the empirical one. The methodology, the data and the statistics are explained in Chapter 2. The third part of the thesis includes the results and the discussion presented in Chapter 3. I will compare my findings to the previous studies and

discuss the limitations of this study as well as possibilities for further research. Finally, the conclusions are given.

1. THEORETICAL FRAMEWORK

1.1 Responsible investing

Responsible investment is at the same time a product, a practice and a process. According to Louche and Lydenberg (2011, 16) responsible investing is a way to identify sustainable companies and to influence companies to move towards more economically, socially and environmentally sustainable practices. Responsible investment as an investment product means that the investor takes into account not only the traditional key figures and ratios of investment but also factors like environmental aspects, social responsibility and good governance. These are commonly known as ESG factors. (Hyrske et al. 2012, 11) The environmental point of view usually covers aspects like climate change, energy efficiency and different kinds of environmental programmes. Social responsibility includes human rights, working conditions and fair treatment of employees whereas governance takes into account aspects like executive pay, board diversity and structure and measures to prevent illegal and unethical actions like bribery and corruption. (PRI 2019, 4)

Not only can responsible investment be identified as a product, a practice or a process but also several ways of investing can be grouped under the term responsible investing. However, the meaning of these terms in practice is not always clear. (Louche, Lydenberg 2011, 16; Caplan et al. 2013, 1) Furthermore, there is not a unified form according to which the matters concerning responsible investing need to be stated. The scope of the reports is different from different companies and markets. For example, in the EU there are some directives guiding the informing about the non-financial aspects, but the companies can select in which form and what performance indicators they are using to analyze it. (Silvola, Landau 2019, 102)

In the following chapters I will first take a look at the history of responsible investing and introduce the main categories that can be grouped under it. The aim is to get a clearer picture of the term before considering the strategies, the instruments and the impacts of responsible investing mainly from an investor's point of view.

1.1.1 Short history of responsible investing

The roots of responsible investing go back to the eighteenth century. The first responsible ethical investors were churches and different religious groups both in the United Kingdom and in the

United States (Sparkes 2006). For example, Quakers and the Methodists refused to invest in companies whose products they considered to be 'sinful' (Louche, Lydenberg 2011, 18). The first socially responsible mutual fund named Pioneer Group was established in the 1920s. The purpose was to exclude investments in tobacco, alcohol and gambling (Caplan et al. 2013, 2).

Responsible investing became more formal in the 1960s. The attention was drawn to the social issues such as the civil rights and social and anti-war protest movements. The environmental awareness grew between 1970s and 1990s (Caplan et al. 2013, 2). Especially environmental disasters such as the oil spill incident of a tanker called Exxon Valdez and the growing threat of climate change have also affected the development of responsible investing (Schroders 2016).

1.1.2 Main categories

History shows us that ethicalness of the investments has affected the development of responsible investing. However, responsible investing is not exactly the same thing as ethical investing. Ethical investing means that the investor makes an investment decision based on his or her values and morals. This can be accomplished by removing from the investment portfolio all the companies acting contrary to the investor's views. (Hyrske et al. 2012, 11) Furthermore, as I have already pointed out in Chapter 1.1, responsible investing itself can be defined in many different ways. For example, Caplan et al. (2013, 1) divide responsible investing into three main categories: socially-responsible investing (SRI), impact investing and environmental, social and governance investing (ESG-investing).

In socially responsible investing non-financial information is involved in the investment decision making process by excluding or including instruments of certain companies in the portfolios (Humphrey, Tan 2014, 375). By negative screening the investor avoids investing in certain companies according to defined ethical guidelines (Caplan et al. 2013, 1). This way certain activities, such as tobacco or alcohol production, can be excluded from the portfolio. For example, religious groups have chosen their investments to match with their values for a long time. Positive screening, on the other hand, makes it possible to invest into companies with desired, sustainable practices. (Humphrey, Tan 2014, 375)

Impact investing means investing in projects or companies that have a certain sustainable goal (Caplan et al. 2013, 1). More precisely, the Global Impact Investing Network defines the term as "investments made into companies, organizations, and funds with the intention to generate

measurable social and environmental impact alongside a financial return" (GIIN 2019). Impact investments generate positive externalities, which is why they are also often in the public interest. Governments, who are able to structure the opportunities, mitigate the risk and provide solid financial returns, may be active partners in impact investments. (Hebb 2013, 72)

When considering the different definitions above, it can be noticed that the terms overlap although there are also some differences. Caplan et al. (2013, 1) combine the idea behind socially-responsible investing and impact investing saying that these two categories use funding and investment activities to express institutional values or advance the institutional mission. The purpose of ESG-investing, on the other hand, is to integrate environmental, social and governance factors into fundamental investment analysis in order to improve the investment performance (Caplan et al. 2013, 2). The institutional investors who have signed the United Nation's (UN) Principles for Responsible Investing also note that responsible ESG-investing differs from the other two main categories, socially responsible investing and impact investing (PRI 2019, 4).

All in all, for a small investor, especially if the person does not have much experience in the market, the terminology in the field of responsible investing might be confusing and it might feel like all the terms mean the same since broadly they have the same type of goals and expectations. For this particular reason, in the empirical part of the thesis and considering the questionnaire it is not expected that the participants can identify the different categories of responsible investing and identify the types they may be using in their own activities precisely. Instead, the purpose is to cover the overall attitudes and actions around the subject.

1.2 Strategies and instruments of responsible investing

1.2.1 Strategies

As stated earlier, responsible investing takes into account factors such as the environmental impact and governance of the company and its impacts on society. There is not only one way to find a responsible investment since it depends on a wide range of decisions made using the available information and considering the personal preferences and what kind of activities the investor wants to support. The different strategies are linked to the categories presented in Chapter 1.1.2 and the importance and value of each factor depends on the chosen strategy. Underlying the different strategies of responsible investing it is noticeable that they all aim at long-term value creation instead of only short-term profit. Also, the rewards are not measured only in price but also in sustainable values (Louche, Lydenberg 2011, 16).

In general, the impact investors can be divided in two. Impact first investors are willing to get lower profits in order to achieve other measures like environmental or social improvements or changes that they want to be involved in. The so-called finance first investors are seeking more profits and less social and environmental return in order to get risk-adjusted return in the market. These investments are usually made in affordable housing projects or in clean technology firms. (Hebb 2013, 71–72)

The most traditional strategy is to avoid investing in companies involved in irresponsible business. Ethical investing and socially-responsible investing are strategies that have mostly been based on negative screening. These approaches can be useful to an investor willing to express his or her ethical, religious or moral values through the investment portfolio. However, restrictive investing strategies limit the range of securities available, which is why they may lead to a lower investment performance. (Caplan et al. 2013, 1–2) Nevertheless, socially-responsible investing has been popular especially among communities and individual investors precisely because it does not only take into account the financial return but also the greater, social and environmental good (Scholtens 2013, 382).

Nowadays the investors' attention is changing from socially-responsible investing towards ESGinvesting. The idea behind the latter is to examine whether the environmental, social and governance aspects are important to the company and material to the company's performance (Caplan et al. 2013, 1–2). Taking the ESG factors into account aims to improve the return and risk profile of the investment portfolio in the long-term (Hyrske et al. 2012, 11). The potential for bigger profits might be possible when these non-financial aspects are implemented into the decision-making process. The reputation of the company can easily change depending on how the ESG issues are handled and it is not a constant variable. Some companies have more ESG-risks than the others and this can be a potential factor to aid success as an investor if one can recognize them. (Silvola, Landau 2019, 95)

Already in 2006 United Nations (UN) published Principles for Responsible Investment (PRI) developed by an international group of institutional investors. These six guiding principles include 1) incorporating ESG issues into investment analysis and decision-making process, 2) being active

owners and incorporating ESG issues into ownership policies and practices, 3) seeking appropriate disclosure on ESG issues by the entities in which is invested, 4) promoting acceptance and implementation of the Principles within the investment industry, 5) working to enhance the effectiveness in implementing the Principles and 6) reporting on activities and progress towards implementing the Principles. (PRI 2019, 5)

The principles mentioned above define responsible investment as a strategy and practice to incorporate ESG factors in investment decisions and active ownership. The basic idea is that even an investor whose sole interest is in financial return can apply the principles. Ignoring the ESG factors is the same thing than ignoring the risks and opportunities that have a material effect on the returns delivered to clients and beneficiaries. (PRI 2019, 4). Even though the guidance has been aimed at the institutional investors, such as insurance companies, pension funds, mutual funds and other pooled investment vehicles, the principles have also affected the general awareness of responsible investing and ESG factors.

1.2.2 Instruments

Responsible investing can be put into practice in different ways and using different types of investments. Although stocks, funds and bonds may be the most common instruments for a small investor, the options are not limited only to them. There are a lot of different options available that money can be placed on such as real estate, infrastructure, commodities and private equity investments.

Stocks are types of securities that give a piece of ownership of the company that is issuing these shares. Usually the investments are made on publicly notified shares because there is more information available and it is fairly easier to do and gain information than investing in the unlisted ones. According to Cole and Shastry (2009) the participation in the stock market increases with age. Other factors increasing the participation are for example higher education (Hong et al. 2004) and financial knowledge (van Rooij et al 2011). Usually small investors focus mainly on the selection of the domestic stock exchange, which is easy to understand since for example a Finnish investor knows familiar and domestic companies the best (Pesonen 2011, 99).

There are multiple reasonable reasons for why the stocks are worthwhile products when considering investing (Ikäheimo et al. 2014, 104). Professor Puttonen has argued that during a long period of time investing in the shares is better compared to the other possible ways of

investing. According to Puttonen this is not just a presumption but is based on the historical return. Stocks are also a good way to divide the risk because the stock prices move differently between the different fields of industry. The stocks can also easily be exchanged for cash because there are good aftermarkets. (Ikäheimo et al. 2014, 104) Individual investor can do research about the firm and its values and operations in multiple ways, which includes the mandatory data that the company has to provide as regulated. For example, listed companies must provide an annual report, which is one source of information. Other sources can be for example analysis by experts, information from the internet or the social media and so on.

Funds are collections of different securities that are compiled in the same portfolio. Owners can be individuals, companies and other institutions, thus it is a collective that offers the benefits of a large capital investor and also expert knowledge. Typically, the operating principle is that the money is invested via company that does not own the shares of the fund but administrates it for a fee. (Puttonen, Repo 2011, 30) There are many types of funds depending on the industry, the area or the products the fund in question focuses on. In many cases the fund has a portfolio manager that takes care of the allocation, where to invest and how much. In fact, the success of the funds is highly contributed to the portfolio managers effort and reactions in changing market situations. (Puttonen, Repo 2011, 34–35)

Since there are various types of funds on the market, the investor has a possibility choose one that fits his or her own values or views on responsibility. Nowadays many providers offer especially themed funds regarding responsibility as the key element in the allocation. There might also be a situation where more or less all funds from a certain provider are responsible but some of them are especially focused on it on top of that. The choice of investing responsibly is made in the investment phase since the portfolio manager takes care of it after that. (Silvola, Landau 2019, 157)

One type of fund that has gained popularity during the recent years is called Exchange Traded Fund (ETF). Like the name of the product indicates, they are tradeable at current market price on a daily basis in any moment when the stock markets are open. In that sense they function as regular shares. On the other hand, like a mutual fund, ETFs are built from a larger collection of stocks, bonds or assets like that. (Antoniewicz, Heinrichs 2014, 5) Also this type of investment has various responsibility-based options in the offerings.

Characteristically, a bond is a large loan that is divided in smaller pieces that have same terms and conditions with each other. Bonds are also eligible for the aftermarkets, which means that the debentures are tradeable in between of the issuing and the payback. It is also preferable for the company to have as good aftermarkets as possible since in that way the bond itself is more appealing for the investors. (Ikäheimo et al. 2014, 94) The profit is usually a fixed annual interest rate.

Green bonds are among the most interesting instruments when considering responsible investing. The first green bond was issued by the World Bank in cooperation with the Swedish bank SEB already in 2008. By last year, the World Bank had issued 158 green bonds (World Bank 2019, 8–11). What distinguishes green bonds from the conventional investment grade bonds is that they have a clause stating that the financing will be used for green projects or assets. However, the instrument is designed for institutional investors. (Maltais, Nykvist 2020, 1–3).

In my opinion, doing transactions in the market is one of the most remarkable way that an investor can play a role encouraging companies to improve their socially, economically and environmentally sustainable practices especially in the case of an institutional investor due to their great buying power (see also Mackenzie 2006). However, even small investors can indicate their thoughts about these matters due demand and supply. If the product for some reason becomes undesirable to hold, people will try to sell the product and possibly try to get something else as a substitute. Another way around, the very desirable products are indicating to the company that they are doing the right things. Therefore, a small investor may also potentially affect the share price, especially when there are many of them doing the same transactions simultaneously. It is important to note that these kinds of movements can happen for various other reasons than just because of the responsibility aspects, but history has shown that they can also be major game changers for the companies.

1.2.3 How to identify a responsible investment?

After choosing an investment strategy the investor wants to use and an appropriate investment instrument, there is left the identification of a responsible investment target. Responsibility as a concept may mean a somewhat different thing for a small investor than for a company executing its corporate responsibility. According to Mähkä and Lehtipuu (2019, 269) the responsibility has

become one of the most challenging investing themes even though it is at the same time the most important one.

It is important to note that the responsibility in the business world does not mean exactly the same as making the world a better place. For the companies, responsibility means auditing the company performance, sustainability reporting and actions in order to promote sustainable development. All the actions of the company and its strategies must include responsibility. Nowadays the companies may also take actively a stand on issues they find relevant and help promoting for example equality in the society. (Mähkä, Lehtipuu 2019, 269) This can be seen also as a strategic advantage since the corporation that makes socially responsible choices and actions may have a stronger level on customer satisfaction and therefore the value of the company may be bigger (Luo, Bhattacharya 2006, 15).

However, if the operation of the company is for example environmentally unsustainable, it does not necessarily mean that a company cannot reach a certain responsibility index. Mähkä and Lehtipuu (2019, 270) use cheap clothing production and H&M as an example. The fact that the company has arranged possibilities for clothing to be recycled and used more environmentally friendly material does not remove the unnecessary burden to the environment when the clothing is not intended for long-term use.

According to Mähkä and Lehtipuu (2019, 270) the ESG-investing is usually not a suitable strategy for a small investor because it requires an extensive familiarization with the company. I partly agree with that statement. It is highly dependent on the level of commitment and passion that one has towards investing and furthermore to the responsibility aspects inside it. One way to divide the workload is to choose to invest in a fund where a large amount of work is done for the investor by the portfolio manager – the work includes things like analysis, decisions and information gathering from the market as well as acknowledging the environmental, social and governance angles and naturally sharing the knowledge with the possible investors. Mähkä and Lehtipuu (2019, 271) suggest also that for a small investor investing in the funds is an easier option than a direct investing into the stocks of responsible companies.

One possible way in order to make a responsible investment is to consider the megatrends and to choose a company, whose products aim to solve problems of the society. As a framework for the decisions the investor can potentially use the Sustainable Development Goals of the United Nations. These include 17 goals and 169 subgoals that are related to big challenges of society (UN 2020). For example, a goal that focuses on ensuring healthy lives and promoting well-being at all ages could be utilized by a company that develops and produces medicine in order to help fighting the globally remarkable diseases. A company that is taking on urgent actions in order to combat climate change and its impacts can produce for example a technology that uses renewable energy or otherwise offers product or services that are more energy efficient. Unfortunately, for now only rather few companies report separately sustainability aspect as net revenue or other numerical goals. (Silvola, Landau 2019, 132)

However, it is also important to keep balance in the portfolio and not to take too much risk. Investing only in new technology may be a mistake financially if the technology in question proves to be unsuccessful. (Mähkä, Lehtipuu 2019, 271) This is a solid way of thinking not only considering responsible investing but also other type of investing as well. Diversification between different assets and inside them in different industries and geographical locations reduces risks because of different correlations. According to the study of Rehman and Vo (2020) adding especially responsible investments to the portfolio may not give the diversification benefits itself when combining them to the portfolio with other instruments. However, some socially responsible investments did better in the market as individual securities.

1.3 Impacts of responsible investing

Taking the sustainable development and responsibility into account in business and in investing has undoubtedly positive effects on the environment and on the society but how about the financial aspect of investors and companies?

It has been argued that socially-responsible investing and positive screening of investment portfolios results in an increase in return. These findings have been based on the stakeholder theory, according to which some companies are better financial performers because of their social performance like community involvement. Therefore, the financial performance of the selected socially responsible company offsets costs from loss of portfolio diversification at least to some degree. (Barnett, Salomon 2006, 1117) On the other hand, it has also been pointed out that when markets are relatively efficient only the increase in return should be observed when the market reacts when the companies are implementing responsibility in their operations. In order to the

financial return to remain higher, the market should be either inefficient to some extent and overestimate the benefits of responsible investing or the company should continuously develop its socially responsible practices and thus increase the value of the company. (Humphrey,Tan 2014, 376; See also Statman, Glushkov 2009). In their study, Humphrey and Tan (2014, 385) found no evidence of either positive or negative screening impacting portfolios' risk or returns.

It has also been argued that integrating ESG analysis in the investment process potentially adds an unnecessary burden imposing constraint that can turn out to be costly (van Duuren et al. 2016). According to the study of Amel-Zadeh and Serafeim (2017) the senior investment professionals from mainstream investment organizations believe that the information on environmental, social and governance aspects is primarily relevant in assessing the company's reputational, legal and regulatory risk rather than its competitive positioning. Most of them believe that stocks with good ESG performance have "lower systematic risk, attract a positive risk premium or are underpriced by the market" (Amel-Zadeh and Serafeim 2017, 6).

Considering the companies, taking responsibility seriously helps the companies to avoid scandals, which is a good thing not only for the company but also for the investor (Mähkä & Lehtipuu 2019, 269). When a company takes care of its image and does not allow the reputation to deteriorate because of unprofessionally handled responsibility matters, the investors trust more to it and it might also attract more of them, which is usually beneficial for the firm. From a shareholder's point of view the stability means higher expectations of reliable payback.

In principle, every investment includes a risk of value depreciation and basic rule of thumb is that the higher the risk the higher is the expected return from the investment as well. Only investments that could be seen as risk-free are the governmental bonds that the highest AAA-rating. Therefore, responsible investing includes risks at least in the major part. The unexpected or at least unwanted attention mentioned above is a possibility that needs to be noticed. Another thing may be for example that the portfolio weights too much on the same type responsible investments. If every investment has been made in the field of cleaner energy source for the future, some companies operating in this field might have a breakthrough but if it is unlikely, they might run out of money to do research and development, which result in a decreasing value of the investment.

However, Friede et al. (2015) reviewed over 2000 studies on the financial effects of the ESG criteria. Approximately 90 percent of these studies had found a non-negative relation between

ESG criteria and the corporate financial performance (CFP) and most of the studies reported positive findings. Therefore, despite of some of the risks mentioned above, responsible investing is not charity. Mähkä and Lehtipuu (2019, 271) argue that the normal rules of investing apply even for responsibility and the funds investing in accordance with the principles of sustainable development do well in comparisons with the ordinary funds. This means that it is possible and adequate to make profit also when investing responsibly.

1.4 Previous studies and hypotheses

As stated earlier, the aim of this this thesis is to examine the decision making and the attitudes the young Finnish adults have towards responsible investing. In the previous chapters I have discussed the theoretical framework of responsible investing including the different definitions of the term, different investing strategies, instruments and the possible impacts of responsible investing. In order to being able to answer to the research questions, in this chapter I will highlight some of the previous researches on young investors' attitudes towards responsible investing and their investing activities before formulating the hypotheses for this study.

Global Investor Study of Schroders (2016) on responsible investing suggests that environmental, social and governance issues are becoming more and more important and the investors are willing to hold their ESG investments longer than their usual investments in order to give the responsible investment time to succeed. The study showed that ESG factors were more important to the millennials (in other words those born between the early 1980s and 2000) than to the older investors and that the importance of the different responsibility factors decreased steadily up through the generations. Young investors are also more likely to sell out the investments they find contradicting to their values. (Schroders 2016, 4–5) On a scale from 0 (not at all important) to 10 (critical), the average score for the importance of responsibility among all the investors participating in the study was 6,9. The small investors (consumers) valued good governance as the most important factor of responsibility. The second most important factor was social responsibility and the third most important factor was a positive impact on the environment. (Schroders 2016, 5)

The results from a survey by Morgan Stanley conducted in the United States suggest that 75 percent of all the individual investors are interested in sustainable investing and as much as 86 percent of the millennials are interested in investing responsibly. Young investors are twice as

likely compared to the other investors to invest in companies based on the companies' ESG practices. They also believe that the investment decisions they make can influence the issues that are important to them. Generally, young women are more interested in responsible investing compared to young men even though the difference is narrow. In 2017, 40 percent of women and 36 percent of men were likely to have integrated sustainability in their investment decisions. (Morgan Stanley 2017, 1–2)

According to a case study from the Czech Republic conducted in 2019 majority of the economically oriented University students considered the possibilities of investing their funds and 40,8 percent of them considered the aspects of socially-responsible investing (SRI) to be very important or somewhat important when making the investment decision. Nearly 60 percent of the participants also reported that they were willing to sacrifice part of their return when investing in socially responsible instruments. (Formánková et al. 2019, 9–10)

Based on the aim of this thesis and the results of previous studies, the following hypotheses were formulated:

- 1. The investors who have more basic knowledge about investing use more time inspecting the responsibility of the investment.
- 2. Social aspects are the most valued factor of responsibility among young Finnish adults.

2. DATA AND METHODS

2.1 Survey

It is important to choose the most suitable method depending on the aim of the study. In general, there are three common research methods. The qualitative approach uses more textural data and answers the questions more deeply from the individual perspective whereas the quantitative method requires numerical data for the analysis. (Williams 2007, 65) The third option is to use mixed research, which is a combination of qualitative and quantitative method used in a single study (Johnsson, Chistensen 2008, 51).

For this thesis, I chose to use the quantitative method. The empirical data for this research was collected via self-designed online survey in English (Appendix 1). The survey was conducted anonymously using Google Forms as a platform. To collect the data, I contacted my Finnish friends and other contacts via social media and asked them to participate in this research. The survey consisted of three parts and included 17 question altogether. The survey was kept simple in order to get as many people as possible to take the time to answer the questions. The most difficult terms were also translated into Finnish.

The first part of the survey included five questions in order to define the socio-economic characteristics of the participants. The participants were asked about their gender, age, educational background and income level. The level of income was answered on a scale from 1 to 10, where 1 denoted the lowest income and 10 indicated high income.

The second part of the survey consisted of seven questions about the investments of the participants. In order to get background information on their financial literacy, the participants were asked about their knowledge of investing and the willingness to take risks when making an investment. The knowledge of investing and the willingness to take risks were answered on a scale from 1 to 10, where 1 denoted no knowledge or not willing and 10 indicated top knowledge or willingness to take substantial risks. The participants were asked whether or not they have stocks, mutual funds, bonds or exchange traded funds (ETFs). More detailed information on the amount of investments was collected by asking about the monetary amount of investments. The answer

options included less than 5000 euros, 5000–10 000 euros and more than 10 000 euros. In addition, it was possible to give as an answer 'prefer not to say'.

The third part of the survey included questions concerning the responsible investing. The participants were asked about the time they possibly spend inspecting the responsibility or the environmental, social and good governance aspects before making an investment. They were also asked about their awareness of the responsibility factors and how highly they appreciate these aspects of the investment. These questions were answered on a scale from 1 to 10, where 1 denoted not much at all or the least important aspect and 10 indicated very much, very aware or the most important aspect. The last two questions of the survey were intended to clarify which ESG factor the participants value the most and do they prefer a more active or passive strategy when making an investment.

2.2 Data

In total, 102 people participated in the survey, which can be considered as a solid amount for the analyzing purposes. The aim of the survey was to gather information on the decision making and attitudes towards responsible investing. The target group was Finnish adults aged 18–30, which is why the nationality of the participant was not asked separately. The age of the participant was asked to be reported in numbers.

Gender distribution of the participants was almost equal since 54 participants (52,9%) were males and 48 participants (47,1%) were females. Majority of the participants were 22–26 years old. Four people reported that they were over 30 years old (two of them 31, one 32 and the oldest one 42 years old). Their answers were not taken into account in the statistical analysis phase meaning that 98 of the answers were included in further analysis in accordance with the aim of the study.

Most of the participants were students and 71 one of them had currently finished their Bachelor's studies. The survey included two options for the field of education: business studies or other studies, which were not specified any further. The distribution was almost even since 55 of the participants (54,9%) studied or had studied business and 46 of the participants (45,1%) were from another field. Altogether 96 participants placed themselves on a scale from 1 to 10 to the lower income sector (from 1-5).

The participants' basic knowledge about investing was divided on a scale from 1 to 10 into nine categories indicating that most of the participants knew at least something about investing. Willingness to take risks was divided quite equally although the risk classes 3, 5, 6 and 7 were slightly bigger than the other ones.

The mutual funds were the most popular instruments since 57 of the participants (55,9%) answered that they have them in their portfolios. The second most popular instruments were stocks with 53 participants investing in them. Bonds were owned by 7 participants (6,9%). ETFs were more popular and 34 of the participants reported to have them. Most of the participants (45,1%) had less than 5000 euros in investments, over a quarter had over 10 000 euros and 13,7 percent had 5000–10 000 euros in their investments. The rest of the participants (12,7%) preferred not to inform the monetary amount of their investments.

Regarding the question about the time used inspecting the responsibility of the investment, the trend seemed to be that the participants did not use a lot of time before making the investment decision. The awareness of responsibility was distributed quite equally on a scale from 1 to 10. Majority of the participants valued the responsibility aspect quite highly. Approximately one third of the participants (36,3%) found all the responsibility factors equally important. Furthermore, approximately one third of the participants (34,3%) thought the most important responsibility factor to be the environmental issues. Social issues were valued as the most important factor by 11,8 percent of the participants whereas 8,8 percent valued the governance issues or thought all the factors to be equally unimportant. More than a half of the participants (56,9%) preferred to choose actively to invest in companies acting in a responsible way. The other half of the participants was divided to those who preferred to leave out investing in companies acting undesirably (20,6%) and to those who preferred none of these strategies (22,5%).

2.3 Statistical analysis

To analyse the data, different models were created using multiple linear regression analysis and cross tabulation. Generalized linear regression analysis models the relationship between one or more independent variables and the dependent variable. Cross tabulations are used for analysing and comparing the results for one or more variables with the results of others. The data was

analyzed using R software environment for statistical computing and graphics (R version 3.3.4 (2018-03-15), R Foundation, Vienna, Austria).

The dependent variables were the time used in inspecting the responsibility of the investment, the awareness about the responsibility of the investment and the value placed on the responsibility of the investment. Gender, age, education level, field of education, income group, the level of knowledge about investing and the willingness to take risks were used as the independent variables. The first cross tabulation was made between the most important responsibility factor of the investment (environmental, social, governance) and gender and age of the participant. The second cross tabulation was made between the preferred strategy of responsible investing and the independent variables used in regression analysis, the ownership of different investment instruments (stocks, funds, bonds, ETFs) and the monetary amount of investments. For the second cross tabulation, also Pearson's chi-squared (X^2) tests were used in order to examine the statistical significance of different independent variables.

3. RESULTS AND DISCUSSION

3.1 Results

As can be seen from the Table 1, the environmental issues are the most important responsibility factor for the female investors. Approximately one third of both the male and the female investors value all the factors of responsible investing as equally important. An interesting note considering the level of education is that well over a half of the participants with a Master's degree value the environmental factors over the social and governance aspects whereas over a half of the high school graduates consider the factors equally important.

		What is th	e most importa	nt factor when	making the inve	estment decision
		All equally	All equally	Environmenta	Governance	
		important	unimportant	lissues	issues	Social issues
Gender	Female	35,56 %	4,44 %	46,67 %	2,22 %	11,11 %
	Male	35,85 %	11,32 %	26,42 %	13,21 %	13,21 %
Education	Bachelor's degree	34,78 %	7,25 %	39,13 %	8,70 %	10,14 %
	High School graduate /					
	corresponding or lower	55,56 %	5,56 %	11,11 %	11,11 %	16,67 %
	Master's degree	9,09 %	18,18 %	54,55 %	0,00 %	18,18 %

Table 1. The most important ESG-factor for the young Finnish investors.

Source: Author's calculations.

Majority of the participants choose to actively invest in companies acting responsibly in their operations (Table 2). Worthy of note is that majority of the investors who have bonds prefer the other strategy, in other words leaving out from their portfolios certain companies acting undesirably. This also showed statistical significance (p = 0.03074) in Pearson's chi-squared test.

The results also suggest that the business students use the different investment strategies more widely than the students from other fields. The Pearson's chi-squared test showed statistical significance when examining the effect of the field of education on the preferred strategy (p = 0.008277).

		Which	strategy do yo	u prefer	
		Actively			
		choose to	Leave out		
		invest in	investing in		Pearson's Chi
		companies	companies		squared test
		acting	acting	None of the	p-value (* = p
		8 -	undesirably	above	< 0.05)
~ '	Female	68,89 %	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Gender	Male	45,28 %	ბათათათათათათაბითათათაბ	8	0.06339
••••••	Bachelor's degree	59,42 %	20,29 %	20,29 %	
Education	High School graduate /				0.7367
Education	corresponding or lower	44,44 %	38,89 %	16,67 %	0.7307
	Master's degree	54,55 %	0,00 %	45,45 %	
NA-1	Business	49,09 %	32,73 %	18,18 %	0 000077 *
Major	Other	65,12 %			0.008277 *
Do you have	No	58,70 %	15,22 %	26,09 %	
stocks	Yes	53,85 %	26,92 %	19,23 %	0.3372
Do you have	No	54,76 %	19,05 %	26,19 %	~ = 4 ~ ~
funds	Yes	57,14 %	23,21 %	19,64 %	0.7128
Do you have	No	59,34 %	18,68 %	21.98 %	
bonds	Yes	14,29 %			0.03074 *
Do you have	No	57,81 %	15,63 %	26,56 %	0 4 4 4 7
ETFs	Yes	52,94 %	32,35 %	14,71 %	0.1117
How much	5000 - 10 000 €	53,85 %	23,08 %	23,08 %	
money do	I prefer not to say	54,55 %	18,18 %	27,27 %	(
you have in	Less than 5000 €	55,56 %		24,44 %	0.9918
investments	Over 10 000 €	58,62 %			

Table 2. The preferred strategy of responsible investing among young Finnish adults.

Source: Author's calculations.

For this thesis I have also created nine models using the multiple linear regression. Different sets of variables were used depending on the dependent variable being explained.

As can be seen from the Table 3, the gender of the participant and higher education (Master's degree) both showed weak statistical significance when modelling the time used in inspecting the responsibility of the investment before making the investment decision. The coefficients for both of these independent variables (Gender (male) and Education = Master or higher) were negative.

	8	How much do you use your time to inspect the responsibility of the investment befor making the investment decision (e.g. environmental, social and good governance aspects)													
			Coe	efficients and	P-values (i	n cursi	/e)								
	1	Model 1		Ν	/lodel 2		N								
Gender (male)	-0.766141	0.141		-1.44559	0.0116	*	-1.2401	0.0220	*						
Age	0.008663	0.942		0.13537	0.3123		0.1480	0.2480							
Education = High School				0.95056	0.1461		0.8836	0.1739							
graduate or lower				0.00000	0.1401		0.0000	0.1755							
Education = Master or higher				-1.94863	0.0351	*	-1.8587	0.0317	*						
Major (other)				0.30351	0.6076										
Income group				0.15085	0.2473										
Knowledge about investing				0.08115	0.5860										
Willingness to take risks				0.08794	0.5085										
	1	Signi	f. code	s: 0 '***' 0.0	01 '**' 0.01	'*' 0.05	·.' 0.1 ' ' 2								

Table 3. The time used in inspecting the responsibility before making an investment decision.

Source: Author's calculations.

As can be seen from Table 4, the basic knowledge about investing showed strong statistical significance when modelling the awareness of responsibility of the investment.

	On a scale	of 1–10, how	awa	•	ink you are stment?	of the	responsibi	lity factors o	of the	
	Coefficients and P-values (in cursive)									
	N	Nodel 1		N	lodel 2		1	Model 3		
Gender (male)	0.16712	0.752		-0.57013	0.3118		-0.31013	0.550187		
Age	0.01249	0.918		0.12571	0.3477		0.09566	0.414208		
Education = High School graduate or lower				1.10543	0.0915					
Education = Master or higher				-0.32578	0.7213					
Major (other)				-0.57013	0.8851					
Income group				0.11578	0.3736					
Knowledge about investing				0.30831	0.0406	*	0.39485	0.000662	***	
Willingness to take risks	1			0.07688	0.5630					

Table 4. The awareness of responsibility among young Finnish investors.

Source: Author's calculations.

As can be seen from Table 5, the gender of the participant showed strong statistical significance when modelling the value placed on the responsibility of the investment. The coefficient for the tested independent variable Gender (male) was negative.

	On a	On a scale of 1–10, how highly do you value the responsibility aspect of the investment? Coefficients and <i>P-values (in cursive)</i>							
		Model 1		Ν	Nodel 2		l N		
Gender (male)	-2.0559	0.0000832	***	-2.17685	0.000253	***	-2.060325	0.000148	***
Age	0.00197	0.8637		0.05420	0.690494		0.020462	0.862057	
Education = High School graduate or lower				-0.137222	0.835840				
Education = Master or higher				-0.77204	0.407434				
Major				-0.06096	0.919280				
Income group				0.08807	0.506090				
Knowledge about investing	1			-0.09856	0.516150		0.003635	0.974375	
Willingness to take risks			,	0.10905	0.421042	(****			
	§	Signi	t. code	<u>s: 0 '***' 0.0</u>	01 '**' 0.01	** 0.05	<u>5 '.' 0.1 ' ' 1</u>		

Table 5. The value placed on the responsibility of the investment.

Source: Author's calculations.

3.2 Discussion

In this section, I will discuss results based on the statistical analysis and compare my findings to the previous studies highlighted in Chapter 1.4. Furthermore, I will critically discuss the limitation and challenges of the data and methodology in this study. Finally, I will present some notes regarding further research.

For this study three research questions and two hypotheses were formulated. The first research question was how the responsibility aspect influences the investment decision, the second question was how likely the investor is doing research before making the investment and the third question was which factor of responsibility the young investors value the most. The hypotheses were that the investors who have more basic knowledge about investing use more time inspecting the responsibility of the investment and that the social aspects are the most valued factor of responsibility among young Finnish adults.

In this study multiple linear regression analysis and cross tabulation were used in order to examine which factors affect the responsible investing of young adults. The variables of interest were the time used in inspecting the responsibility of the investment, the awareness about the responsibility of the investment, the value placed on the responsibility of the investment, the most important responsibility factor of the investment (environmental, social, governance) and the preferred strategy of responsible investing. These variables were considered in relation to gender, age, education level, field of education, income group, the level of knowledge about investing, the willingness to take risks and the ownership of investment instruments (stocks, funds, bonds, ETFs). The sample size for this study was 98 responses.

The results were derived from nine linear regression models. The gender of the participant and the higher education level reveled to have weak statistical significance on the time used in inspecting the responsibility of the investment before the decision making. On average, the female participants reported to use a little more time inspecting the responsibility compared to the male participants. The results also suggest that those having a higher education use less time inspecting the responsibility than those having a lower education.

Instead, the basic knowledge about investing revealed to have strong statistical significance on the awareness of responsibility among the participants. Therefore, the results from this study did not support the first hypothesis. It could be possible that those having a higher education also have a better basic knowledge about investing, which is why they do not have to use that much time inspecting the responsibility of the investment. This, however, cannot be observed from this study.

The gender of the participant revealed to have strong statistical significance on how highly the responsibility of the investment is valued indicating that responsibility is a more important factor for the female investors than for the male investors. Previous studies also support this result since according to a survey conducted by Morgan Stanley (2017, 2) the female millennials are more interested in responsible investing compared to men.

The majority of the participants preferred an active investing strategy although the business students use different strategies more widely than other students. The most important factor of responsibility for the female investors in this study turned out to be the environmental issues whereas most of the male participants valued all the factors of responsible investing as equally important. Also, majority of the participants with a higher level of education valued the environmental aspects over the social and good governance aspects. Therefore, the results were not consistent with the second hypothesis either. This finding is also contradicting to the previous studies indicating the good governance and social issues to be more important factors for the investors in general (Schroders 2016, 5). One possible conclusion is that the young Finnish adults with a higher education are very aware of the different environmental problems.

The limitation of the used linear regression model has to do with the fact that a significant correlation does not in all cases indicate that there is a causation between two variables. A one good example is that those who belong to higher income group have higher levels of savings and spending. This results in a positive relationship between the level of savings and the level of spending even though one variable does not cause the other (see also Kamer-Ainur, Marioara 2007, 710). Furthermore, it has to be noted that the survey was based on self-evaluation, which is why the results may include personal biases that cannot be observed from this study. Also, the sample of this study was quite small, which is probably why only the few individual variables showed statistical significance. Considering further research, the research should be carried out with larger data and wider sample of participants.

Nevertheless, the responsibility of the investment seems to be an important factor for the young Finnish adults and the different factors of the responsibility are taken into account when making the investment decision. The topic of this study is interesting and continues to be relevant because the importance of the environmental, social and good governance issues is most likely still growing among the millennial investors in the future (see also Schroders 2016).

CONCLUSION

The aim of this study was to gather and analyze the information about decision making and attitudes towards responsible investing among young Finnish adults aged 18–30. The research questions covered the influence of the responsibility aspects on the investment decision, the probability that the investor is using time inspecting the responsibility of the investment before making the decision and the factor of responsibility the investors value the most when making the decision to invest in a certain instrument.

As previous studies have stated, the results from this study also support the argument that the young female investors value the responsibility aspect higher than the male investors. The female investors also spend a little more time inspecting the responsibility before making the investment decision. Contrary to the hypothesis and previous research, the results from this study suggest that environmental issues are the most important factor of responsibility for the young Finnish adults.

In conclusion, the results of this study show that young Finnish adults are interested in responsible investing and they are considering the different factors of responsibility and strategies when making the investment decision. For further research, there should be a larger sample size in order to get more specific information on the subject.

LIST OF REFERENCES

- Antoniewicz, R., Heinrichs, J. (2014). Exchange-Traded Funds: How ETFs Work. ICI Research Perspective 20(5).
- Amel-Zadeh, A., Serafeim, G. (2017). Why and How Investors Use ESG Information: Evidence from a Global Survey. Harvard Business School Working Paper, No. 17-079.
- Barnett, M.L., Salomon, R.M. (2006). Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. Strategic Management Journal. 27(11), 1101–1122.
- Caplan, L., Griswold, J.S., Jarvis, W.F. (2013). From SRI to ESG: The Changing World of Responsible Investing. Commonfund Institute.
- Cole, S., Shastry, G.K. (2009). Smart Money: The Effect of Education, Cognitive Ability, and Financial Literacy on Financial Market Participation. Boston, MA: Harvard Business School.
- Finnair. Finnair tähtää hiilineutraaliksi vuoteen 2045 mennessä, https://www.finnair.com/fifi/bluewings/vastuullisuus/finnair-tähtää-hiilineutraaliksi-vuoteen-2045-mennessä-2053976, (accessed 24.4.2020)
- Formánková, S., Trenz, O., Faldik, O., Kolomaznik, J., Sládiková, J. (2019). Millenials' Awareness and Approach to Social Responsibility and Investment – Case Study of the Czech Republic. Sustainability 2019, 11(504)
- Friede, G., Busch, T., Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. Journal of Sustainable Finance & Investment, 5:4, 210–233.
- Global Impact Investing Network (GIIN). Impact Investing, https://thegiin.org/impact-investing/, (accessed 25.4.2020)
- Hebb, T. (2013). Impact investing and responsible investing: what does it mean? Journal of Sustainable Finance & Investment, 3:2, 71–74.
- Hong, H., Kubik, J.D., Stein, J.C. (2004). Social interaction and stock-market participation. The Journal of finance, 59(1), 137–163.
- Humphrey, J.E., Tan, D.T. (2014). Does it Really Hurt to be Responsible? J Bus Ethics 122, 375–386.
- Hyrske, A., Lönnroth, M, Savilaakso, A., Sievänen, R. (2012). Vastuullinen sijoittaminen. FINVA.
- Ikäheimo, S., Laitinen, E.K., Laitinen, T., Puttonen V. (2014). Yrityksen taloushallinto tänään. Vaasan Yritysinformaatio Oy.

- Johnsson, B., Christensen, L. (2008). Educational Research Quantitative, Qualitative and Mixed Approaches. 3rd edition. Sage Publications Inc.
- Kamer-Ainur, A., Marioara, M. (2007). Errors and limitations associated with regression and correlation analysis. Annals of Oradea University Review, Economics 2(16), 709–711.
- Louche, C., Lydenbeg, S. (2011). Dilemmas in responsible investment. Taylor & Francis Group.
- Luo, X., Bhattacharya, C.B. (2006). Corporate Social Responsibility, Customer Satisfaction, and Market Value. Journal of Marketing 70(4), 1–18.
- Mackenzie, C. (2006). The scope for investor action on corporate, social and encironmental impacts. In Sullivan, R., Mackenzie, G. (Ed.), Responsible Investment. Greenleaf Publishing Limited.
- Maltais, A., Nykvist, B. (2020). Understanding the role of green bonds in advancing sustainability. Journal of Sustainable Finance & Investment.
- Morgan Stanley. Istitute for Sustainable Investing. (2017). Sustainable Signals New Data from the Individual Investor. Available: https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainablesignals/pdf/Sustainable_Signals_Whitepaper.pdf
- Mähkä, M., Lehtipuu, U. (2019). Sijoittajaksi 7 päivässä. Alma Talent Oy.
- Pesonen, M. (2011). Säästäjästä sijoittajaksi Jokamiehen sijoitusopas. WSOY pro Oy, 126– 127.
- Principles for Responsible Investment (PRI). (2019). Principles for Responsible Investments An investor initiative in partnership with UNEP finance initiative and the UN Global Compact. Available: https://www.unpri.org/download?ac=6303
- Puttonen, V., Repo, E. (2011). Miten sijoitan rahastoihin. WSOY pro Oy.
- Rehman, M.U., Vo, X.-V. (2020). Is a portfolio of socially responsible firms profitable for investors? Journal of Sustainable Finance & Investment 10(2), 191–212.
- Scholtens, B. (2013). Indicators of responsible investing. Ecological Indicators 36, 382–385.
- Schroders. (2016). Global Investor Study 2016 What investors think about responsible investing. Available: https://www.schroders.com/en/sysglobalassets/digital/insights/pdfs/2016/sgis-2016/sgis-2016-esg-full-report-final.pdf
- Schroders. (2016). A short history of responsible investing, https://www.schroders.com/en/insights/global-investor-study/a-short-history-ofresponsible-investing-300-0001/, (accessed 24.4.2020)

Silvola, H., Landau, T. (2019). Vastuullisuudesta ylituottoa sijoituksiin. Alma Talent Oy.

- Sparkes, R. (2006). A historical perspective on the growth of socially responsible investment. In Sullivan, R., Mackenzie, G. (Ed.), Responsible Investment. Greenleaf Publishing Limited.
- Statman, M., Glushkov, D. (2009). The wages of social responsibility. Financial Analyst Journal, 65(4), 33–46.
- United Nations (UN). About the Sustainable Development Goals, https://www.un.org/sustainabledevelopment/sustainable-development-goals/, (accessed 26.4.2020)
- Van Duuren, E., Plantiga, A., Scholtens, B. (2016). ESG Integration and the Investment Management Process: Fundamental Investing Reinvented. Journal of Business Ethics 138, 525–533.
- Van Rooij, M., Lusardi, A., Alessie, R. (2011). Financial literacy and stock market participation. Journal of Financial Economics, 101(2), 449–472.

Williams, C. (2007). Research Methods. Journal of Business & Economics Research, 5(3).

World Bank. (2019). Green Bond Impact Report 2019.

Appendix 1

Questionnaire for young Finnish adults about attitudes and decision making towards responsible investing

PART ONE (Socioeconomic characteristics)

- 1. Gender
 - o Male
 - o Female
- 2. Age

0 _____

3. Education

- Master's degree or higher
- Bachelor's degree
- $\circ \hspace{1.5cm} \text{High School graduate/corresponding or lower}$
- 4. Field of education
 - o Business
 - Other
- 5. On a scale of 1–10, to which income group do you belong?
 - 1 = Low income 10 = High income

PART TWO (Investment participation)

6. How much do you know about investing?

1 = No knowledge 10 = Top knowledge

7. How much risk are you willing to take when making an investment?

1 =Not willing 10 = Willing to take substantial risks

8. Do you have stocks?

YES NO

9. Do you have mutual funds?

YES NO

10. Do you have bonds?

YES NO

11. Do you have ETF:s?

YES NO

- 12. How much money do you have in the investments approximately?
 - \circ Less than 5000 euros
 - o 5000–10 000 euros
 - o Over 10 000 euros
 - Prefer not to say

PART THREE (Responsible investing practices)

13. On a scale 1–10, how much do you use your time to inspect the responsibility of the investment before making the investment decision (e.g. environmental, social and good governance aspects)?

1 =Not much at all 10 =Very much

14. On a scale 1–10, how aware you think you are in the responsibility factors of the investment?

1 =Not much at all 10 =Very aware

15. On a scale 1–10, how highly you appreciate the responsibility aspect of the investment?

1 = It is the least important aspect for me 10 = It is the most important aspect for me

- 16. What is the most important factor for you that the companies have to pay attention to?
 - Environmental issues
 - o Social issues
 - o Governance issues
 - All are equally important
 - All are equally unimportant

17. Which strategy do you prefer?

- o Leave out investing in companies acting undesirably
- o Actively choose to invest in companies acting responsibly
- \circ None of the above

Appendix 2

A non-exclusive licence for reproduction and for granting public access to the graduation $thesis^1$

I _____Sami Arnkil_____(author's name)

1. Give Tallinn University of Technology a permission (non-exclusive licence) to use free of charge my creation

_____Reponsible investing among young Finnish adults

(title of the graduation thesis)

supervised by_____Pavlo Illiashenko

(name of the supervisor)

1.1. to reproduce with the purpose of keeping and publishing electronically, including for the purpose of supplementing the digital collection of TalTech library until the copyright expires;

1.2. to make available to the public through the web environment of Tallinn University of Technology, including through the digital collection of TalTech library until the copyright expires.

2. I am aware that the author will also retain the rights provided in Section 1.

3. I confirm that by granting the non-exclusive licence no infringement is committed to the third persons' intellectual property rights or to the rights arising from the personal data protection act and other legislation.

¹ The non-exclusive licence is not valid during the access restriction period with the exception of the right of the university to reproduce the graduation thesis only for the purposes of preservation.