Predicting Individuals' Intention to Make Socially Responsible Investments: Application of an Extended Theory of Planned Behavior

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Abstract

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During the past decade, the finance sector has gone through significant changes: Sustainability, as a major trend, led to the development of socially responsible investment products, and simultaneously, individual investors became a major force in the stock market. However, little is known about the internal factors affecting individuals' decisions to make socially responsible investments. This study used the theory of planned behavior and extended it with the constructs of moral norm, environmental concern, and perceived consumer effectiveness to investigate which constructs determine individuals' intention to make socially responsible investments. Research data has been gathered using an online questionnaire to enable the investigation. The results of the conducted regression analysis suggest that attitude, subjective norm, moral norm, and environmental concern significantly influence individuals' intention to make socially responsible investments. The implications of those findings for public policymakers and the different actors from the private sector are discussed.

Keywords: Theory of Planned Behavior, Decision Making, Individual Investing, Socially Responsible Investments, Sustainability

Sumário

Título: Prevendo a intenção dos indivíduos de fazer investimentos socialmente responsáveis: Aplicação de uma extensão da teoria do comportamento planeado

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Durante a última década, o setor financeiro passou por mudanças significativas: a sustentabilidade, como grande tendência, levou ao desenvolvimento de produtos de investimento socialmente responsáveis e, simultaneamente, os investidores individuais tornaram-se uma grande força no mercado de ações. No entanto, pouco se sabe sobre os fatores internos que afetam as decisões dos indivíduos de fazer investimentos socialmente responsáveis. Este estudo utilizou a teoria do comportamento planeado e ampliou-a com os construtos de norma moral, preocupação ambiental e eficácia percebida do consumidor, para investigar quais construtos determinam a intenção dos indivíduos de fazer investimentos socialmente responsáveis. Os dados da pesquisa foram recolhidos por meio de um questionário online. Os resultados da análise de regressão realizada sugerem que atitude, norma subjetiva, norma moral e preocupação ambiental influenciam significativamente a intenção dos indivíduos para fazer investimentos socialmente responsáveis. São discutidas as implicações destes resultados para as políticas públicas e os diferentes atores do setor privado.

Palavras-chave: Teoria do Comportamento Planeado, Tomada de Decisão, Investimento Individual, Investimentos Socialmente Responsáveis, Sustentabilidade

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

CSR	Corporate Social Responsibility
e.g.	for example
ESG	Environmental Social Governance
et al.	and others
ETF	Exchange Traded Fund
GVIF	Generalized Variance Inflation Factor
n.d.	no date
SRI	Socially Responsible Investment
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
SDGs	Sustainable Development goals
UN	United Nations
VIF	Variance Inflation Factor

1. Introduction

The global challenges that affect humanity are more apparent than ever: The continued growth of the world's population, resource scarcity, climate change, and social injustices. Meanwhile, those challenges have also become important drivers of international political agendas and public debates (Cousins et al., 2021). In 2015, the United Nations (UN) established 17 Sustainable Development Goals to guide international action on economic, social, and environmental issues (United Nations, n.d.). A few months later, 196 countries signed the Paris Agreement and sealed the deal to prevent global temperatures from rising further by limiting the increase to 1.5 degrees Celsius. To achieve the goals of the Paris Agreement, the global economy must become climate-neutral by mid-century (United Nations Climate Change, n.d.). To this end, the agreement has set additional goals: Strengthening the economy's capacity to combat the negative effects of climate change, reducing greenhouse gas emissions, and promoting the financing of investments needed to support sustainable development (NGFS, 2019).

Sustainable development can be defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, p. 43). Given the financial sectors' power to channel capital into sustainable investments, it has an essential role in enabling sustainable development. Besides policies pressuring for a more sustainable economy, the financial sector has some self-interest in transforming the economy. The impacts of climate change threaten financial stability, and climate-related disasters already cause significant economic losses (Ludlow, 2018). Furthermore, studies showed that sustainable development and sustainable lifestyle increasingly influence individuals' behavior (Granskog et al., 2020). This does not only affect purchasing decisions for physical goods, like buying organic food in the supermarket or opting for a more environmentally-friendly car but also impacts financial investment decisions.

Today, many people want their investments to reflect values and contribute to solutions to the issues mentioned beforehand instead of simply generating a profit. Additionally, a study by Morgan Stanley (2019) showed that investing in sustainability has usually met, and often exceeded, the performance of comparable traditional investments. These factors have significantly influenced the development of socially responsible investments (SRI). SRI refers to "integrating social, environmental, or ethical criteria into financial investment decisions"

(Cowton & Sandberg, 2012, p.1). SRI addresses environmental and social issues, thereby making the financial markets more accountable for these impacts (Lanis & Richardson, 2013). While there are various socially responsible investments, the most popular and best known are socially responsible funds, also known as socially responsible mutual funds. Essentially, those funds aim to profit while not investing in societally or environmentally harmful activities (Bollenn, 2007; Petrillo et al., 2016).

The demand for socially responsible funds has significantly grown in the last two decades (Geczy et al., 2021). Individual investors spurred this demand as they returned as a major force in the market over the past years since trading apps give them access to the stock market from their smartphones (Chatterjee, 2021; Philips, 2021). An individual investor is defined as a person who trades on his behalf and attempts to manage his funds with little or no professional support (Barber & Odean, 2013). Consequently, any person who is legally allowed to invest can be an individual investor. Despite the growing importance of individual investors, previous research has often focused on the professional or organizational investors' perspective. For example, previous studies have investigated the financial performance of socially responsible investments and whether there is a difference in financial performance compared to conventional investments (Bollenn, 2007; Revelli & Viviani, 2013). In contrast, the internal factors affecting the individuals' decision to choose sustainable investment options have not been researched sufficiently yet (Benson & Humphrey, 2008; Gardini & Grossi, 2018; Martí-Ballester, 2015; Nilsson, 2009; Rubaltelli et al., 2015; Wins & Zwergel, 2016).

This thesis aims to identify the factors determining individuals' intention to make socially responsible investments by adopting the theory of planned behavior (TPB). According to the TPB, behavioral intentions are the strongest predictor of behavior, and behavioral intentions are, in turn, determined by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). The TPB has been widely used to investigate the motivation of sustainable behavior or consumption intention, but the factors influencing individuals' SRI decisions have not been investigated sufficiently yet (Adam & Shauki, 2014). Furthermore, the most recent studies were not only conducted in countries with a specific religious context (e.g., Adam & Shauki, 2014) but also before major trends shaping how the individual consumer invests, like trading apps, took off (e.g., Wins & Zwergel, 2016). In conclusion, this study uses an extended model of the TBP to investigate the determinants of individuals' intention to make socially responsible investments.

By understanding the intentions behind the decision to invest in SRI, companies operating in or having ties to the financial sector can tailor their products and services according to their segment's preferences (DeBondt et al., 2008; Nga & Yien, 2013; Valentine & Powers, 2013) and get a deeper understanding of the decision making process of the individual investor. From a theoretical perspective, this research contributes to a fuller picture of SRI by complementing what is known about the financial performance of SRI with knowledge about the determinants of individuals' intentions to invest in SRI.

This introduction is followed by the literature review, which explains the need for this research in more detail and derives hypotheses from previous research conducted in the field. Next, the methodology chapter outlines the analysis strategy and describes the featured methods and the experimental design. The following chapter presents the results of the statistical tests conducted, while the final chapter discusses them and points out implications, limitations, and potential for future research.

2. Literature Review

This chapter aims to provide an overview of the research conducted so far, thereby deriving the hypothesis used in this study. The first section defines sustainability, corporate social responsibility, and environmental and social government, while the second focuses on socially responsible investments. Afterward, the third section defines socially responsible mutual funds, while the fourth section defines individual investing and then discusses its recent rise. The final section of this chapter introduces the theory of planned behavior and derives the hypothesis used in this study, structured along with subsections for each construct used.

2.1 Sustainability, Corporate Social Responsibility, and Environmental Social Government

With sustainability being a megatrend affecting major industries and policy dimensions, the term sustainability has broad usage and is difficult to define. An early definition characterizes sustainability as a development that meets the needs of the present without risking that future generations will not be able to meet their own needs (World Commission on Environment and Development, 1987). In recent research, various definitions have a common understanding that sustainability integrates economic, environmental, and social dimensions (Elkington, 1997; Engert et al., 2016; Seuring & Müller, 2008). These three

dimensions influence each other and are interrelated (Dyllick & Hockerts, 2002). This dissertation adopts this common understanding as its definition of the term sustainability.

As companies, alongside governments, play an essential role in achieving the transition to a more sustainable planet, a term closely associated with sustainability is Corporate Social Responsibility (CSR) (Dyllick & Hockerts, 2002). The European Commission (2006) defines CSR as a concept where companies integrate social and environmental concerns in their business operations and interactions. Further, CSR describes a company's measures to create a social benefit beyond their interests and legal requirements by incorporating stakeholder concerns in their activities. In addition, CSR can also include progressive steps beyond legal requirements, such as supporting local businesses and suppliers and reducing pollution from the company's operations (McWilliams & Siegel, 2001). Hence, CSR requires companies to incorporate economic, environmental, and social dimensions of sustainability into their business decisions. Depending on the company's core business, the direction of engagement varies. Thus, environmentally sensitive industries such as energy or manufacturing may focus on CSR activities that reduce their environmental impact.

In contrast, socially sensitive industries, such as retail, focus on CSR activities important to people and communities (Miralles-Quirós et al., 2018). According to Turner and collaborators (2019), CSR investments can be seen as a company's statements about its values and attract customers who would not have considered the company as an alternative before the investment. Furthermore, according to the European Commission (2006), CSR can significantly contribute to sustainability and competitiveness.

The most commonly used evaluation criteria for CSR efforts are the environmental, social, and governance (ESG) criteria. Academics and investors commonly use the ESG criteria and the corresponding framework to evaluate a company's sustainability and CSR activities based on its performance within the three ESG pillars environmental, social, and governance (Whitelock, 2019). The three-pillar model approach defines concrete criteria, which serve as guidelines for companies and enable rating agencies to compare and evaluate companies. The model consists of three pillars: First, the environmental pillar of ESG is associated with measures regarding climate change, greenhouse gas emissions, energy, chemicals, or pollution. Second, the social pillar refers to human rights, working conditions, local communities, freedom of expression, humanitarian crises, and poverty. Lastly, the governance pillar looks at how a company is run and measures, for example, political contribution, lobbying, or internal corruption (Limkriangkrai et al., 2017). With the awareness of sustainability and CSR issues increasing among consumers and governments alike, investors often consider the ESG

framework as part of their risk analysis. From a narrower academic perspective, the ESG criteria and framework are embedded in the concept of sustainable investments, which will be the focus of the next part.

2.2 From Sustainable Investments to Socially Responsible Investments

The term sustainable investment is commonly used in public debates to cover sustainability-related topics in investing. Thus, sustainable investment can be considered as an umbrella term for investments intended to contribute to sustainable development by incorporating long-term environmental, ethical, social, socioeconomic, or governance criteria. It is reflected in the definition of BlackRock (2022), which refers to sustainable investments as investments that combine traditional investing with environmental, social, and governance-related insights to improve long-term outcomes. Comparably, the academic literature in the past referred to those investments using a broad range of terms, like social, sustainable, and ethical investments (Bruyn, 1987; Frankel and Duberg, 1984; Hylton, 1992; Sparkes & Cowton, 2004; Schlegelmilch, 1997; Renneboog et al., 2008). However, the two terms with the highest adoption in the literature are ethical and socially responsible investment (Domini, 1984; Schueth, 2003; Simon et al., 1972). Today, the term socially responsible investment is used most often. Some market participants prefer to refrain from using the term ethical, as this could imply too much reliance on moral or religious values (Adam & Shauki, 2014; Sparkes & Cowton, 2004). Schueth (2003, p. 190) defines SRI as: "the process of integrating personal values and societal concerns into investment decision-making." In the recent past, the popularity of SRI has soared among market participants globally (Adam & Shauki, 2014; Hofmann et al., 2008; Nilsson, 2008; Renneboog et al., 2008). The most popular type of socially responsible investment is socially responsible funds, which will be thematized in the following section.

2.3 Socially Responsible Investment Funds

SRI can be characterized as a broad term for investments that include the three pillars of ESG criteria and sometimes ethical and religious criteria (Eccles & Viviers, 2011). Different socially responsible investments exist, like direct investments into reforestation projects or shares of single companies that can be considered sustainability leaders in their respective industries. However, the most popular socially responsible investment is socially responsible investment funds, also known as socially responsible mutual funds. A *mutual fund* can be

defined as "a company that pools money from many investors and invests the money in securities such as stocks, bonds, and short-term debt" (US Securities and Exchange Commission, n.d.). Investors buy shares of mutual funds either directly from the companies which issue those funds or their bank or broker. According to Nofsinger and Varma (2014), SRI mutual funds are distinguished from conventional ones by the fact that the companies issuing the funds consider ESG criteria when analyzing and making investments. However, another type of fund saw a notable increase in demand in the past decade: Exchange Traded Funds (ETFs). While in 2009, ETFs controlled assets of roughly a billion US dollars, they controlled more than 7.7 billion US Dollars in assets in 2020 (Statista, 2020). Like for mutual funds, there are several sustainable ETFs available, but in contrast to mutual funds, ETFs are traded on stock exchanges funds during their opening hours. They are especially popular among individual investors, who recently had a comeback as a major force in the stock market, which will be covered in more detail in the next section.

2.4 The Recent Rise of Individual Investing

There are two major types of investors: institutional investors and individual or retail investors (Barber & Odean, 2013). While institutional investors refer to organizations like pension, mutual, or hedge funds, individual or retail investors are single persons who invest their private money in stocks or funds. Everyone has access to exchanges through their smartphones today, especially due to the availability of new broker apps like Robin Hood in the United States or Trade Republic in the European Union. Those apps were a significant contributor to the return of the individual shareholder to the markets, with retail trading in 2021 accounting for nearly as much volume as hedge and mutual funds combined (Philips, 2021). However, the majority of previous research on how motives and decision-making influence the behavior of individual investors, especially in the SRI context, is from more than a decade ago. In addition, Adam and Shauki (2014) argue that the derived insights are not sufficient, as the findings are either descriptive (Adam & Shauki, 2014; Glac, 2009; Hofmann et al., 2008; Lewis & Mackenzie, 2000; Rosen et al., 1991) or the studies compare the traits of SRI and non-SRI Investors (McLachlan & Gardner, 2004; Tippet, 2001). In turn, previous research is rare and deployed only a very limited number of theoretical frameworks to understand the behavior of SRI investors, which means that the motives to invest in SRIs are under-researched (Adam & Shauki, 2014). The current literature only states that investors' choice depends on their financial aims and attitudes regarding environmental, social, and ethical issues. Therefore, this study

aims to add a more profound understanding by applying the theory of planned behavior, which will be outlined in the next section.

2.5 Theory of Planned Behavior

This section introduces the classic model of the theory of planned behavior and derives hypotheses for the three featured constructs, attitude, subjective norm as well as perceived behavioral control. It further describes the extended theory of planned behavior and states hypotheses for the constructs moral norm, environmental concern, and perceived consumer effectiveness.

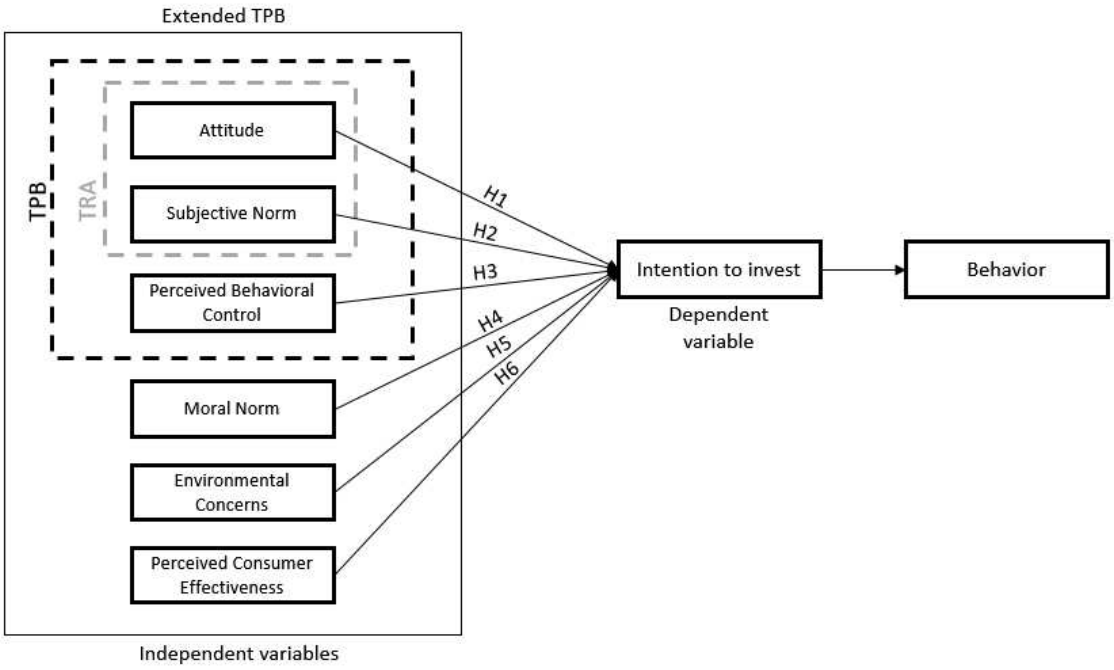
2.5.1 The Classic Model of the Theory of Planned Behavior

The theory of planned behavior was developed by Icek Ajzen in 1985 and is one of the most widely used social psychological models to understand and predict individuals' behavior (Ajzen, 2015). It extends Ajzens and Fishbein's (1980) theory of reasoned action (TRA) and connects peoples' intentions to their behavior. Intentions capture the motivating factors that influence behavior and indicate how much people want to perform a specific behavior and how hard they are willing to try (Ajzen, 1991). The theory states that the stronger the intention toward a particular behavior, the more likely it will be performed (Ajzen, 1991).

According to the TPB, three conceptually independent determinants form people’s intentions. First, attitude indicates whether a person considers a behavior positive or negative. Second, the subjective norm is the perceived social pressure to perform a behavior. Third, perceived behavioral control refers to peoples' perception of the ease or difficulty of performing the behavior (Ajzen, 1991). Perceived behavioral control was added to the model when Ajzen extended it from the TRA to the TPB to make the model applicable in contexts where individuals do not have complete control over the resources to perform the behavior (Ajzen, 2002). The importance of these three determinants may differ depending on the object of study and between individuals and situations. The basic rule for TPB is that the more favorable these three factors are, the more likely the person will form an intention to perform the desired behavior (Ajzen, 2015). Figure 1 depicts the conceptual model, which shows the application of TBP in the context of this study.

Figure 1

Conceptual Model



Hofmann and collaborators (2008) compared how different theoretical frameworks could explain investors' behavior in the SRI context and found substantial support for TPB. Hence, the theory of planned behavior serves as this studys' theoretical background and framework to research individuals' intention to make socially responsible investments (Armitage & Conner, 2001). The three constructs introduced above are further described below, and the hypotheses are formulated.

Attitude. The first factor mentioned in TPB is attitude, which reflects how an individual evaluates a specific behavior (Kim & Han, 2010). Attitude can be defined as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). Thus, attitude is an individuals' expression when thinking or feeling about something or someone. In addition to that, attitudes play a role in deciding whether an action should be taken or not. According to the TPB, the more positive an attitude towards a behavior is, the stronger the intention to perform the behavior (Ajzen, 1991). In the context of this study, an attitude refers to the peoples' evaluation of favor or disfavor to invest in socially responsible funds.

Many studies have found a significant influence of attitude on behavioral intention (Mathieson, 1991; Teo & Pok 2003; Shih & Fang 2004; Ramayah & Suki 2006). For example, research suggests that individuals with positive attitudes toward green offerings are more inclined to buy them (Trivedi et al., 2018). Moreover, previous studies reported a positive relationship between attitude and individuals' intention in financial decision-making in general (Borden et al., 2008; Mandell & Klein, 2007). While Bollenn (2007) noted that peoples' attitudes toward the financial effectiveness of socially responsible funds vary more than towards conventional funds, the studies of Williams (2007) and Hofmann and collaborators (2008) have found empirical support for the positive relationship between attitude and intention in the context of SRI investing. Most recently, Shauki and Adams (2014) analyzed a sample of Malaysian investors, with their results also supporting a positive relationship. Therefore, the following hypothesis is proposed:

H1: *There is a positive relationship between personal attitude and individuals' intention to make socially responsible investments.*

Subjective Norm. The second determinant of the model is subjective norm, which is defined as the individuals' interpretation of their expected behavior by important reference persons, such as family, friends, or colleagues (Adam & Shauki, 2014). Ajzen assumes that social influences, more precisely the perceived expectations of others, impact individuals' intentions (Ajzen 1991). Thus, social norm represents an individuals' belief about what others will think about the specific behavior. In this study, subjective norm refers to how an important reference person or group influences a person's decision to become involved in socially responsible investing.

Previous research has shown that subjective norms significantly affect consumers' intention toward sustainable behavior. In contrast, some prior research questions the predictive ability of social norms and argues that the determinant social norm is generally acknowledged as a weak predictor of intention (Armitage & Conner, 2001). However, Armitage & Connor (2001) also state that the construct was often operationalized using a one-item scale, which might have influenced the reliability of the results.

Previous research has also examined the influence of subjective norms in financial investing. The results suggest that subjective norms significantly affect investors' decision-making (e.g. Croy et al., 2012; Koropp et al., 2014; Sharma & Gupta, 2011). However, Hofmann and collaborators (2008) had quite ambivalent findings regarding socially responsible investment decisions. On the one hand, since people generally do not like to discuss

money issues with others, investment decisions were often not or only rarely influenced by reference persons or society. On the other hand, investors believe that one should invest ethically because this is considered as the norm by reference persons (Hofmann et al., 2008). Moreover, in a recent study, Adam and Shauki (2014) found a statistically significant positive effect of subjective norm on participants' intention to make socially responsible investments. Therefore, the second hypothesis is defined as follows:

H2: *There is a positive relationship between subjective norms and individuals' intention to make socially responsible investments.*

Perceived Behavioral Control. The third construct, perceived behavioral control, refers to individuals' perception of the difficulty or ease in performing a particular behavior. Perceived behavioral control reflects past experiences and anticipated obstacles, which help control the perceived ease or difficulty in behavior (Ajzen, 2002). In the context of this study, perceived behavioral control refers to peoples' perception of the ease or difficulty of making investments in socially responsible funds.

Many studies show that perceived behavioral control can explain considerable variance in intention and behavior (Fu et al., 2006; Mathieson, 1991; Shih & Fang, 2004). Regarding sustainability, the study of Lasut and collaborators (2022) showed that perceived behavioral control had a significant positive impact on individuals' intention toward sustainable behavior. In the context of socially responsible investments, prior research has found no significant effect of perceived behavioral control on individuals' actual behavior (Hofmann et al., 2008; Adam & Shauki, 2014). However, as this study investigates the intention to make socially responsible investments, the third hypothesis under investigation is:

H3: *There is a positive relationship between perceived behavioral control and individuals' intention to make socially responsible investments.*

2.5.2 Extended Theory of Planned Behavior

According to Ajzen (1991), additional explanatory variables may be included in the TPB framework if it can be demonstrated that they make a significant contribution. Several studies investigating sustainable behavior using the TBP included additional predictors and revealed their significance. This study also contains three additional constructs introduced in the following section.

Moral Norm. Moral norm, the first additional variable of this extension of the TPB, is defined as the responsibility that a person perceives to perform a specific action (Beck & Ajzen, 1991). The moral norm is essential among the various TPB extensions because it significantly explains variance in individuals' behavior (Ajzen, 1991). The construct moral norm targets a persons' own internal moral values, whereas the basic TPB model only considers the moral beliefs of others (Arvola et al., 2008). The concept of moral norm is based on the Norm Activation Model. To activate an individuals' norm, two conditions need to be achieved: First, the individual must recognize that the behavior has a good or bad aspect for society, which also means that the person is aware of the behavioral consequences. Second, the individual must feel responsible for positively contributing to the issue at hand (Schwartz, 1977; Shalender & Sharma, 2020). In the context of this study, moral norm is the responsibility that people feel about making socially responsible investments.

Several studies show that the inclusion of moral norm improves behavioral prediction (Ajzen, 1991; Armitage & Conner 2001; Conner & Armitage, 1998; Eagly & Chaiken, 1993). In summary, several studies suggest that moral norm should be used to extend the theory of planned behavior (East, 1993; Godin et al., 2005; Rivis et al., 2009). in the context of sustainability, Shaw and collaborators (2015) point out that individuals who show moral norm by taking care of the environment are more sensitive to ecological issues. Regarding sustainable investment decisions, only Adam and Shauki (2014) investigated if moral norm affects the intention to make socially responsible investments and found a positive, statistically significant effect. Therefore, the fourth hypothesis under investigation is:

H4: *Moral norm positively influences individuals' intention to make socially responsible investments.*

Environmental Concern. Another construct that can be used to extend the TPB is environmental concern. Environmental concern is defined as peoples' awareness of environmental issues and their willingness to solve them (Alibeli & Johnson, 2009). Yadav and Pathak (2016) define environmental concerns as efforts done individually to protect and save the environment. Diekmann and Franzen (2018) refer directly to human guilt and describe environmental concern as the realization that environmental conditions are threatened by human resource consumption and pollution. Urban (1986) indicates that environmental concern is a multidimensional measure of value, environmental attitudes, and ecological

responsible behavioral intentions. While there are several definitions of environmental concern, in the context of this study, it refers to peoples' awareness of environmental issues and the willingness to solve them.

Previous research has found evidence that environmental concern influences consumers' intention and behavior. Pagiaslis and Krontalis (2014) found that environmental concern positively relates to individuals' attitudes towards green products. Moreover, it influences consumers' intention to adopt environmentally friendly procedures and products (Ajzen and Fishbein 1980; Bamberg 2003; Hines et al. 1987; Mohamed et al. 2016). In addition, earlier research shows that environmental concern increases pro-environmental purchase intention (Daziano & Bolduc, 2013; Kaplan et al., 2016). Even though there is no previous research if environmental concern influences the intention to make socially responsible investments, due to the findings previously mentioned, the following hypothesis is derived:

H5: *Environmental concern positively influences individuals' intention to make socially responsible investments.*

Perceived Consumer Effectiveness. The final construct used to extend the TBP in the current study is perceived consumer effectiveness. Perceived consumer effectiveness refers to the belief that people are more willing to become engaged regarding a social issue if they believe that their behavior will contribute to the solution of the problem in question (Nilsson, 2009). In this study, perceived consumer effectiveness refers to consumers' belief that making socially responsible investments effectively contributes to solving ecological and societal problems.

Various studies have found that perceived consumer effectiveness relates positively to peoples' contributions to sustainable development. For example, Roberts (1996) found that green consumption is often associated with perceived consumer effectiveness. Thus, He and Zhan (2018) discovered that perceived consumer effectiveness is an essential predictor of consumers' intention to adopt electronic vehicles. In addition, the findings of Webb and collaborators (2008) and Cojuharenco and collaborators (2016) suggest that perceived consumer effectiveness is a relevant predictor of socially responsible behavior. Regarding socially responsible investment intention, previous research showed that perceived consumer effectiveness significantly affects peoples' intention to make socially responsible investments

(Nilsson, 2008). This confirms the importance of perceived consumer effectiveness in the investment context. Moreover, prior research also concludes that investors with strong pro-social attitudes toward socially responsible investments and high perceived consumer effectiveness would invest more in socially responsible funds (Nilsson, 2008; Wins & Zwergel, 2016). As there is evidence of the predictive power of perceived consumer effectiveness on socially responsible behavior and some empirical support that it positively influences the intention to make socially responsible investments, the following hypothesis is proposed:

H6*: There is a positive relationship between individuals' perceived consumer effectiveness regarding socially responsible investments and their intention to invest.*

3. Methodology

This chapter first outlines the research strategy and design and afterward discloses how data was collected. The following section gives a brief overview of the procedure of the conducted online experiment. Finally, the measurements used to operationalize the constructs under investigation are described.

3.1 Research Strategy and Design

This study investigates if the constructs attitude, subjective norm, perceived behavioral control, moral norm, environmental concern, and perceived consumer effectiveness, which in this study serve as the predictors, are associated with the construct intention, which is the outcome variable. Specifically, this study aims to investigate if there is a positive correlation between the predictor variables and the intention to make socially responsible investments, which indicates that the research effort is a correlational study (Ary et al., 2010; Asamoah, 2014). A quantitative research approach was deployed because this allowed incorporating a larger sample size. This is the preferred approach when one aims to measure and quantify concrete constructs (Bryman & Bell, 2011; Ghauri et al., 2020). The research design applied was an online questionnaire using Qualtrics, for which each construct was operationalized with a multi-item question block.

3.2 Sample and Data Collection

Everybody above the age of 18 was considered a potential participant, as they are legally allowed to invest in socially responsible investments of all kinds. This study used a convenience sampling approach, specifically snowball sampling, to recruit participants. Snowball sampling relies on referrals from original respondents to others who are believed to have the characteristics of interest (Parker et al., 2019). While this approach suffers from the problem that not every demographic group has the same likelihood to appear in the sample (Mutz, 2011), it also enables quick data collection (Ghaljaie et al., 2017), which was necessary as the study had to be conducted within a limited time frame. The survey was distributed using LinkedIn, Instagram, Facebook, Email, and the peer-to-peer survey exchange platform Surveycircle, to sample a wide variety regarding age, educational level, and gender. Respondents participated voluntarily and gave their consent to participate in the study.

In order to ensure robust statistical testing conditions, a minimum acceptable sample size had to be considered (Field et al., 2012). To calculate the minimum acceptable sample size, the rules of Green (1991) were taken into account. According to the rules, a minimum size of 50 + 8*k is needed to test the model fit and a minimum size of 104 + k is required in order to test individual predictors, with k being the number of predictors (Field et al., 2012). As the number of predictors in this study is equal to six, this translates to minimum sample sizes of 50 + 8 * 6 = 98 and 104 + 6 = 110.

3.3 Procedure

At the beginning of the survey, the participants were first familiarized with the aim of the study and informed about the approximate duration of the survey. Participants were also informed that the survey results would remain anonymous and would only be used for this research effort. Participants agreed to the stated terms by choosing "I consent" and submitting the consent form. After accepting the consent form, descriptions of socially responsible investing and socially responsible funds were presented to ensure that the participants had a common understanding of the study topic. On the next page, participants were asked demographic questions and if they had already invested in any form of investment in general or any socially responsible investment. Afterward, participants saw the multi-item scales operationalizing the constructs investigated in this study. Between the items to measure environmental concern, an attention check was included to exclude later participants who did

not pay attention and increase the results' robustness (Kung et al., 2018). The entire questionnaire used in this research effort is displayed in Appendix A.

3.4 Measurement Variables

The questionnaire development used previously validated frameworks to operationalize the constructs. Multi-item scales were used as single item scales are not considered reliable enough to capture sufficient data on constructs. Therefore, all constructs were operationalized using at least three items per construct, which is consistent with Hair and collaborators' (2010) guidelines. Regarding the control variables, a minimum size of $n = 10$ was defined for a group to be included in the final analysis to ensure the robustness of the results. If the minimum size for a category was not met, comparable categories were aggregated, or the category was excluded (see below).

3.4.1 Predictor Variables

Attitude. Attitude was operationalized using a five-point semantic differential scale with three items. The items were adapted from Shalender & Sharma (2021) and edited to be consistent with the study topic. Respondents had to rate the statements "I consider socially responsible investments…" "unfavorable/favorable," "negative/positive," and "undesirable/desirable."

Subjective Norm. The four items used to measure subjective norm were adapted from Shalender & Sharma (2021), and each of them had to be rated on a five-point Likert scale ranging from "Strongly disagree" to "Strongly agree." The four items included were edited to match the topic of this study, which resulted in the following items: "The people who are important to me want me to make socially responsible investments in the near future.", "While investing, I consider the wishes of other people who are important to me.", "If I make socially responsible investments, people who are important to me will also make socially responsible investments.", and "The people who influence my opinions prefer that I make socially responsible investments when making investments in the future."

Perceived Behavioral Control. The construct perceived behavioral concern was operationalized using three items, utilizing a five-point Likert scale anchored with "Extremely unlikely" and "Extremely likely." The three items were adopted from Alleyne and Broome

(2011) and only slightly changed to reflect the topic of this study. The included items were the following: "If I want to make socially responsible investments, I can easily do it", "I have the knowledge to make socially responsible investments," and "There are plenty of opportunities for me to make socially responsible investments."

Moral Norm. The three items used to operationalize moral norm were adapted from Shalender and Sharma (2021) and only revised to reflect the topic of this study. Participants answered the items on a five-point Likert scale ranging from "Definitely false" to "Definitely true." The three items included are: "I feel an obligation to make socially responsible investments rather than conventional investments.", "Making socially responsible investments rather than conventional investments makes me feel like a better person," and "If I make socially responsible investments rather than conventional investments, I feel as if I am making a personal contribution to something better."

Environmental Concern. Respondents' environmental concern was measured using four items adapted from Shalender & Sharma (2021), which were slightly edited to ensure that they fit the research topic of this study. The items were measured on a five-point Likert scale with the anchors "Strongly disagree" and "Strongly agree." The four items included in the questionnaire are: "I think individuals and society have the responsibility to protect the environment.", "I think environmental issues have become more serious in recent years.", "I take into account environmental consequences while making investment decisions.", "I think we should live in harmony with the environment to achieve sustainable development."

Perceived Consumer Effectiveness. Perceived consumer effectiveness was measured using four items adapted from Nilsson (2009), where respondents had to answer on a five-point Likert scale anchored with "Strongly disagree" and "Strongly agree." The items were edited to be consistent with the topic of this study, which resulted in the following items: "By making socially responsible investments, every person can have a positive effect on the environment.", "Every person has power to influence social problems by investing in responsible companies.", "It does not matter if I invest my money in socially responsible investments since one person acting alone cannot make a difference." and "It is useless for the individual consumer to do anything about pollution.".

3.4.2 Outcome Variable

Intention to Invest. This study aims to investigate whether the predictor variables are related to the intention to make socially responsible investments. Intention to make socially responsible investments was operationalized using three items adapted from Ajzen (2002). The items were only slightly edited to align with the research topic. Participants rated the items on a five-point Likert scale ranging from "Strongly disagree" to "Strongly agree." The items included are: "I am willing to make socially responsible investments when investing in the future.", "I intend to make socially responsible investments when investing in the future.", and "I plan to make socially responsible investments when investing in the future.".

3.4.3 Control Variables

Gender. Previous research shows that there are gender-specific differences in consumers' decision-making regarding SRIs. Tippet (2001) found that consumers investing in SRIs are mainly female. This is supported by Beal and collaborators (2005), who found that female investors make up much of the SRI investor population. Therefore, gender was included as a control variable in this research effort. As only one participant made use of the prefer not to say option, this observation was excluded from the final analysis, and gender was included as a dichotomous variable.

Age. Several studies have shown that age is associated with consumers' intention to make socially responsible investments. Previous findings indicate that younger people tend to be more likely to make socially responsible investments, which might be explained by the higher level of concern for sustainability issues (Diamantopoulos et al., 2003; Laroche et al., 2001; Lewellen et al., 1977; Rosen et al., 1991; Schueth, 2003). Therefore, age is added as a control variable.

Nationality. Nationality is included as a control variable, as there are national differences in engaging with the stock market. For example, shareholder quotas and the average household's percentage of assets in financial assets like shares differ between European countries (European Commission, 2018).

For the final analysis, nationality was included as a dichotomous variable with the levels German and non-German, as most participants in the sample were German (81.2%). Therefore all non-Germans were aggregated into the non-German category to avoid small sample sizes for the different nationalities.

Education. Previous studies investigating SRI have found that investors often are highly educated, possessing at least a bachelor's degree (Chan, 1999; Schueth, 2003). Other research efforts show that the educational level influences investors' demand for socially responsible investments, as lower educational levels correlate with lower demand for SRI (Nilsson, 2009; Tippet & Leung, 2001). Therefore, it is expected that the level of education is influential when it comes to socially responsible investment decisions.

For the final analysis, some of the levels of education, which had very few observations, were either aggregated with another level or replaced by NAs. More specific, all observations from the categories Secondary school (n = 7) and High school (n = 51) were aggregated in the category High school degree or less, and all observations from the categories Master's degree (n = 124) and PhD or higher (n = 8) were combined in the category Master's degree or higher. Finally, the observations in the Other category (n = 7) were excluded, as the defined minimum group size was not met.

Occupation. Escrig-Olmedo and collaborators (2013) found that most people who consider making responsible investments are students or employees. However, they also found some support that unemployed people are more likely to invest in SRIs. Because of those findings, occupation is included as a control variable.

The categories Unemployed (n = 7) and Retired (n = 9) both only featured a comparably small number of observations. However, they were aggregated in the category Unemployed / Retired for the final analysis, as they are conceptually comparable. In addition, the five observations from the Other category were excluded from the final analysis, as the defined minimum size was not reached.

Investments and **Socially Responsible Investments.** The final stage of the consumer process purchasing process is the post-purchasing process, in which the consumer evaluates the purchased product (Frambach et al., 2007). Past research shows that those evaluations influence consumers' future purchasing decisions, especially repurchase intention (Hellier et al., 2003). As a socially responsible investment decision can often be equated with buying a financial product, it is expected that consumers' past investments might influence their intention to invest. Therefore, questions investigating if consumers previously invested in general or specifically SRIs, were added to operationalize the control variables.

As only four participants were not sure if they had invested before, the defined minimum size was not met, and those four answers were excluded from the final analysis.

4. Results and Analysis

This chapter describes the strategy as well as the results of the performed data analysis. The first section discloses the analysis strategy, while the following outlines the characteristics of the final sample. Subsequently, the results of reliability and multicollinearity testing are described. The last section of this chapter outlines the results of the hypothesis testing. Following Gravestetter and Wallnau (2007) and Hair and collaborators (2010), a significance level of $\alpha = 0.05$ is used unless stated otherwise.

4.1 Analysis Strategy

The data was collected by an online survey and analyzed with the statistical program R. In a first step, data preparation took place. Variables were renamed, and incompleted responses were deleted. In case a participant failed the included attention check, the response was also removed. Afterward, reliability and multicollinearity testing was conducted by analyzing Cronbach's Alpha to ensure internal validity and Pearson's *r* and the Variance Inflation Factor to investigate potential multicollinearity issues (Saunders et al., 2009; Bryman & Bell, 2011). Finally, regression analysis was utilized to test the proposed hypothesis (Field et al., 2012; Flora, 2017).

4.2 Sample Characteristics

Overall, 559 people accessed the survey via the distributed link and started the questionnaire; 415 participants fully completed the survey. Of these 415 data points, 91 failed the included attention check and were removed from the sample. In conclusion, the final sample under investigation contained 324 observations (58.3% female, $M_{age} = 32.31$, $SD = 11.40$). Of those, 263 (81.2%) were responses from German participants. In addition, the sample consisted mostly of highly educated people, as 259 (79.9%) of the observations in the final sample came from participants who got at least a bachelor's degree. Also, most of the respondents were either studying (108, 33.3%) or employed (171, 52.8%). Moreover, 198 participants (61.1%) had already invested in general, while only 82 participants (25.3%) were sure they had already invested in socially responsible funds. Compared to the question regarding investments in general, participants were more often unsure if they invested in socially responsible investments, as 35 (10.8%) picked the "I don't know" option. In comparison, only 4 (1.2%)

did so when asked if they already invested in general. Table 1 of Appendix B depicts the sample characteristics in more detail.

4.3 Reliability and Multicollinearity Analysis

The first subsection of this section outlines the reliability analysis results, while the second summarizes the results of the multicollinearity analysis.

4.3.1 Reliability Analysis

If constructs composed of more than two items are used, the reliability of the scales should be analyzed (Field et al., 2012). Therefore, a Cronbach's α analysis was conducted to ensure internal reliability. As suggested by Hair and collaborators (2010), a minimum value of 0.6 was set for Cronbach's α. Cronbach's α varies between 0.59 and 0.91 (see Appendix Table C1 for all results). Therefore, all constructs except perceived consumer effectiveness exceed the set Cronbach's α value of 0.6. Malhotra (2010) states that a Cronbach's α below the set value indicates that the utilized scale is unreliable, indicating that the items operationalizing this variable should be revised or potentially removed. However, as perceived consumer effectiveness was only 0.01 below the set threshold, it was kept unchanged for further analysis.

4.3.2 Multicollinearity Analysis

Table 1 depicts the descriptive statistics and bivariate correlations between all continuous variables, which in the current case are all the extended TPB's predictor variables. The Pearson correlation tests' correlation coefficients ranged from -0.13 to 0.59. As none of the correlation coefficients was higher than 0.8, this first analysis supports the hypothesis that the model does not suffer from multicollinearity (Hair et al., 2010).

Table 1

Descriptive Statistics and Correlations for Continuous Variables Using Pearson's r

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. Attitude	4.09	0.63	-						
2. Subjective Norm	3.17	0.71	.14**	-					
3. Perceived Behavioral Control	3.40	0.83	.11**	-.07	-				
4. Moral Norm	3.90	0.76	.46***	.39***	-.06	-			
5. Enviromental Concern	4.37	0.46	.43***	.25***	.04	.47***	-		
6. Perceived Consumer Effectivness	2.98	0.56	-.13**	.26***	-.04	.15***	.05	-	
7. Intention	4.02	0.71	.44***	.36***	.13**	.59***	.55***	.10*	-

Note. $n = 324$, *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$

Another measure to indicate the robustness of results is the Variance Inflation Factor (VIF). The VIF is used to assess if multicollinearity exists between multiple variables (Saunders et al., 2009). The lowest possible value for the VIF is 1, but according to Hair and collaborators (2010), values up to 5 are deemed acceptable. However, Fox and Monette (1992) argue that if a model features categorical predictors with different degrees of freedom, the Generalized Variance Inflation Factor (GVIF) should be analyzed. If the categorical predictors in the model have different degrees of freedom, $GVIF^{1/(2\,df)}$ should be analyzed instead (Fox & Monette, 1992). To make the obtained $GVIF^{1/(2\,df)}$ values comparable to the widely accepted thresholds, they should be squared (Fox & Weisberg, 2011). As the model features categorical predictors with different degrees of freedom, the $GVIF^{1/(2\,df)}$ for a regression model that features all variables in the data set was computed. The squared $GVIF^{1/(2\,df)}$ for the model, which includes all data set variables, ranges from 1.15 to 2.01 (see Appendix Table D1 for the full results). Therefore, in accordance with Hair and collaborators (2010), the specified model does not suffer from multicollinearity.

4.4 Hypothesis Testing

Two linear regression models were specified to test the proposed hypothesis, with intention to make socially responsible investments being the outcome variable in both of them. The first model included all constructs as predictors, while the second model also included all control variables as predictors. Table 2 summarizes the results for the first specified model, while Table 3 depicts the results for the second specified model, which includes the control variables.

Table 2

Results for the Specified Regression Model without Control Variables

Variable	Estimate	*SE*	*p*
Intercept	-0.89	0.35	.011
Attitude	0.20	0.05	< .001
Subjective Norm	0.14	0.05	.002
Perceived Behavioral Control	0.10	0.04	.003
Moral Norm	0.29	0.05	< .001
Environmental Concern	0.47	0.07	< .001
Perceived Consumer Effectiveness	0.03	0.05	.536

Note. Multiple $R^2 = 0.50$, Adjusted $R^2 = 0.49$, $F(6, 317) = 52.11$

Table 2 shows that all constructs which serve as predictor variables in the specified model, except for perceived consumer effectiveness, have a statistically significant positive relationship with intention to make socially responsible investments. A second model that includes the control variables was specified to increase the robustness of the findings, with the results depicted in Table 3.

Table 3 indicates a better fit of the model, as the multiple R^2 and the adjusted R^2 are higher than those of the previously fitted model (Field et al., 2012; Flora, 2017). As such, the second model, which includes the control variables, will be used to determine if the proposed hypotheses are supported (Field et al., 2012; Flora, 2017).

Hypothesis 1 states a positive relationship between attitude and individuals' intention to make socially responsible investments. Attitude, $t(289) = 3.56$, $p < .001$, has a statistically significant and positive relationship with intention to make socially responsible investments. In conclusion, people with a more positive attitude towards socially responsible investments are more likely to intend to make such investments. Therefore, Hypothesis 1 is supported.

Table 3

Results for the Specified Regression Model Including Control Variables

Variable	Estimate	*SE*	*p*
Intercept	-0.22	0.39	.573
Attitude	0.19	0.05	< .001
Subjective Norm	0.14	0.04	.002
Perceived Behavioral Control	0.01	0.04	.716
Moral Norm	0.32	0.05	< .001
Environmental Concern	0.43	0.07	< .001
Perceived Consumer Effectiveness	0.04	0.06	.525
Gender [a]			
Male	0.05	0.06	.437
Age	-0.01	0.01	.038
Nationality [b]			
Not German	0.09	0.08	.228
Education [c]			
High School or less	-0.14	0.09	.112
Bachelor's degree	0.01	0.07	.868
Occupation [d]			
Student	-0.01	0.07	.823
Self-employed	0.11	0.11	.353
Retired or uemployed	0.19	0.16	.236
Investments [e]			
Not invested before	-0.21	0.07	.005
Socially Responsible Investments [f]			
Invested before	0.25	0.10	.002
Not Sure	-0.08	0.07	.426

Note. Multiple $R^2 = 0.55$, Adjusted R^2: 0.53; $F(17, 289) = 20.89$,
[a] Reference category: Female $n = 189$, [b] Reference category: German $n = 263$, [c] Reference category: Master's equivalent or above $n = 132$, [d] Reference category: Employed $n = 171$ [e] Reference category: Invested before $n = 198$, [f] Reference category: Not invested before $n = 207$

Hypothesis 2 states a positive relationship between subjective norm and individuals' intention to make socially responsible investments. Subjective norm, $t(289) = 3.09$, $p = .002$, has a statistically significant and positive relationship with intention to make socially responsible investments. This means that the more people believe their reference persons think making socially responsible investments is favorable, the more people intend to make such investments. In conclusion, Hypothesis 2 is supported.

Hypothesis 3 states a positive relationship between perceived behavioral control and individuals' intention to make socially responsible investments. The results of the conducted regression analysis show that perceived behavioral control, $t(289) = 0.36$, $p = .716$, does not have a statistically significant association with intention to make socially responsible investments. Hence, hypothesis 3 is not supported.

Hypothesis 4 states that moral norm positively influences individuals' intention to make socially responsible investments. Moral norm, $t(289) = 6.50$, $p < .001$, has a statistically significant and positive relationship with individuals' intention to make socially responsible investments. In turn, if individuals feel a higher moral obligation to make socially responsible investments, they are more likely to intend to make such investments. Accordingly, Hypothesis 4 is supported.

Hypothesis 5 states that environmental concern positively influences individuals' intention to make socially responsible investments. The analysis of the specified model reveals that environmental concern, $t(289) = 5.89$, $p < .001$, has a statistically significant and positive relationship with intention to make socially responsible investments. This means that the higher the level of an individual's environmental concern, the more likely the individual intends to make such investments. Therefore, Hypothesis 5 is supported.

Hypothesis 6 states a positive relationship between individuals' perceived consumer effectiveness regarding socially responsible investments and their intention to make socially responsible investments. However, perceived consumer effectiveness, $t(289) = 0.64$, $p = .525$, has no significant association on intention to make socially responsible investments. In turn, Hypothesis 6 is not supported.

Regarding the control variables, age, $t(289) = -2.87$, $p = .038$, had a statistically significant negative relationship with individuals' intention to make socially responsible investments. Furthermore, no prior investments, $t(289) = -2.85$, $p = .005$, had a statistically significant negative association with intention and past socially responsible investments, $t(289)$

= 3.15, p = .002, had a statistically significant positive association with intention. In addition, Table 3 shows that gender, nationality, education, and occupation had no statically significant relationship with intention. In summary, being younger, having made previous investments, and having made previous socially responsible investments, were associated with higher intention to make socially responsible investments.

5. Discussion

This chapter first discusses the results of the conducted data analysis. Then, a first section outlines the implications for research and summarizes managerial implications, a second section outlines limitations and directions for further research, and the final section summarizes the implications and contributions of this research effort.

The data analysis showed support for four of the six proposed hypotheses. Specifically, attitude, subjective norm, moral norm, and environmental concern had a statistically significant and positive relationship with participants' intention to make socially responsible investments, while perceived behavioral control and perceived consumer effectiveness had no statistically significant association with intention.

The findings regarding the hypothesis addressing the core constructs of the theory of planned behavior are mostly in line with those of previous research. The findings of this study showed a positive effect of attitude on intention (Hypothesis 1). They are therewith not only in line with those of Williams (2007) and Hofmann and collaborators (2008) but also with those of Shauki and Adams (2014), who analyzed a sample of Malaysian investors. In addition, Hypothesis 2 was supported, indicating a positive effect of subjective norm on intention. While past research findings suggest that subjective norm, in general, is a weak predictor of intention (Armitage & Conner, 2001; Sheppard et al., 1988), positive effects have been found in studies investigating financial decision making in general (Croy et al., 2012; Koropp et al., 2014; Sharma & Gupta, 2011) and socially responsible investment decisions in particular (Adam & Shauki, 2014). Therefore, these findings of this study are in line with previous research, even though Hoffmann and collaborators (2008) had ambivalent findings in their experimental study.

Furthermore, this study supports the findings of Hoffmann and collaborators (2008) and Adam and Shauki (2014) regarding perceived behavioral control, as there is no statistically

significant relationship between this construct and the intention to make socially responsible investments (Hypothesis 3). A possible explanation for the non-significance of perceived behavioral control might be that the three core variables have varying degrees of importance when it comes to different behaviors and situations (Azjen, 1991). Another possible explanation might be the relatively homogeneous sample regarding education and investment history. Nearly 80% of the participants had at least a bachelor's degree, and more than 60% have already invested, which hints at low differences between the participants regarding perceived behavior control. This explanation is supported by the fact that perceived behavioral control has a statistically significant effect in the specified regression model without control variables but not in the regression model with included control variables.

In addition to the core variables featured in the theory of planned behavior model, this study investigated the potential effects of three additional constructs on individuals' intention to make socially responsible investments. Moral norm had a positive relationship with intention to make socially responsible investments (Hypothesis 4), which is in line with the findings of Adams and Shauki (2014), who investigated socially responsible investment decisions, and the literature investigating moral norm in general (Ajzen, 1991; Armitage & Conner 2001; Conner & Armitage, 1998; Eagly & Chaiken, 1993; Manstead, 2000). Furthermore, environmental concern had a significant positive relationship with respondents' intention to make socially responsible investments (Hypothesis 5). This is a new finding, as previous research only shows that environmental concern increases pro-environmental purchase intention (Daziano & Bolduc, 2013; Kaplan et al., 2016), but, to the author's knowledge, never investigated if those findings hold in the general investment or SRI context. However, the final construct used to extend the theory of planned behavior, perceived consumer effectiveness, had no significant association with intention. Therefore, there is no support for Hypothesis 6, which contradicts the findings of Nilsson (2008) and the findings of Wins and Zwergel (2016), who found a significant effect of PCE in their studies. A factor that might explain the non-significant effect is related to the sample, as it consists of more than 80% of German respondents. A big scandal in the very recent past unsettled the German SRI scene. A former top manager of the investment fund subsidiary of Germanys' biggest bank, Deutsche Bank, alleged the bank massively overstated the share of assets managed using ESG criteria, prompting investigations by European and U.S. authorities (Kowsmann et al., 2021). The scandal was prominently featured in the press and provoked a public greenwashing debate in which the effectiveness of SRI investments was questioned (Narat & Rezmer, 2021).

The findings regarding the control variables support some of the findings of past research in the SRI context. Age had a statistically significant negative relationship with participants' intention to make socially responsible investments, which is in line with previous research (Diamantopoulos et al., 2003; Escrig-Olmedo et al., 2013; Laroche et al., 2001; Lewellen et al., 1977; Rosen et al., 1991; Schueth, 2003). In addition, previous investments in general and previous investments in SRI had a statistically significant positive relationship with intention to make socially responsible investments.

In contrast with previous research (Beal et al., 2005, Tippet, 2005), gender had no statistically significant relationship with intention to make socially responsible investments. However, studies that found support for the effect of gender are already or almost two decades old, which have an impact since both the importance of sustainability and gender roles in society have changed since then. Furthermore, education was not statistically significantly associated with intention, which is not in line with previous research (Chan, 1999; Nilsson, 2009; Tippet & Leung, 2001; Schueth, 2003). This could be explained by the quite homogeneous sample, as 80% of the participants hold at least a Bachelor's degree, which in turn also means that the group of people with a lower educational degree was comparably small. Moreover, in contrast to Escrig-Olmedo and collaborators (2013) findings, the occupation had no significant relationship with intention to make socially responsible investments. However, Escring-Olmedo and collaborators (2013) only found a slightly significant effect for unemployed people, which were merged with retired people in this study to ensure a group size that increases the robustness of the results. Concluding, retired and unemployed people are underrepresented in the sample, which might explain the non-significance of the relationship. Besides, nationality also had no statistically significant relationship with intention, which might be explained by the fact that most participants were German (81.2%). At the same time, the non-German category was an aggregation of participants from several nations. Thus, maybe differences between nationalities exist, but there is too much heterogeneity in the Other category, but the small number of participants in each of the several nations did not allow an analysis of this.

5.1 Theoretical Contributions

This study contributes to the state of research in four ways. First, it is the first research effort investigating the role of environmental concern in the context of (socially responsible)

investments. This improves the completeness of analysis, as the model of the theory of planned behavior is extended by a construct not researched in this context so far. As environmental concern was found to be positively associated with consumers' intention to make socially responsible investments, this study is the first to demonstrate that environmental concern is positively associated with consumers' judgment in the (socially responsible) investment context. Second, this study is one of the few studies investigating consumers' intention to make socially responsible investments. Second, it differentiates itself from previous research, which often focused on comparisons regarding financial performance compared to classical investments (Adam & Shauki, 2014; Bollenn, 2007; Revelli & Viviani, 2013). In contrast, the internal factors affecting the decision of individuals to make socially responsible investments have not been researched thoroughly (Gardini & Grossi, 2018; Nilsson, 2009; Wins & Zwergel, 2016). Third, in contrast to existing studies (Adam & Shauki, 2014; Bollenn, 2007; Hoffmann et al., 2008; Nilsson, 2008; Williams, 2007), this study is the first to investigate consumers' intention to invest in SRIs since major trends shaping how individuals invest, like trading apps and ETFs, took off. Fourth, it is also the first study about the intention to make socially responsible investments in recent years that utilizes a sample of individual investors from Europe. This is a differentiator as the most recent study in the field, by Adam & Shauki (2014), used a sample of Malaysian investors, which means an entirely different societal context as investment decisions there are often tied to religious beliefs (Sharia investing). Therefore, especially the constructs moral and subjective norm could be potentially influenced by the different societal contexts, limiting the transferability of Adam and Shauki's (2014) results to western societies.

5.2 Managerial Implications

The findings of this study have implications for policymakers and different actors from the private sector. Public policy makers could use the results to promote SRIs in the general population to achieve the goal of sustainable development. As attitude, subjective norm, moral norm and environmental concern increase the intention to make socially responsible investments, governments should try to utilize these determinants to promote SRIs. For example, public policy makers could introduce stricter regulations regarding SRI in a bid to improve consumers' attitude by increasing their trust in SRIs, due to improved transparency. In addition, elected officials should keep stressing the importance of sustainability and

especially sustainable investments during their public appearances in a bid to influence the social desirability perception of SRI investments and therewith potentially subjective norm.

Furthermore, state-funded campaigns that highlight that SRI investments contribute to societal welfare and stress the responsibility of each citizen to contribute to sustainable development could positively influence moral norm. In addition, the approaches targeting subjective and moral norm could also help to increase environmental concern in the general population by stressing the importance of sustainability. Moreover, public announcements that make the implications of environmental damage more salient could also increase environmental concern in the general population.

As for the private sector, it can utilize the findings to target consumers when it comes to selling SRI products. The results regarding environmental concern show that consumers who care about the environment, as well as consumers who invested in general or SRIs before, are good target groups. In addition, younger people are a promising target group, as a higher age is negatively correlated with intending to make socially responsible investments. Therefore, advertising efforts aimed at young people, environmentally conscious people who have already invested before promise to be particularly successful. The findings also have potential implications for the marketing content that should be used to promote socially responsible investments. As subjective norm correlates with intention to invest, companies could deploy a marketing strategy utilizing (micro-) influencers, as they might be important reference persons for some consumers (Wielki, 2020). Furthermore, companies should aim to improve people's attitude regarding SRI, especially their particular products, such as through ad campaigns.

5.3 Limitations and Future Research

Besides the implications, this study also has some limitations that can serve as directions for future research efforts. First, this study investigates intention without investigating actual behavior, therefore falling short of analyzing if the intention to invest in socially responsible investments translates into real investments being made. However, data of real investment decisions is needed to investigate actual behavior, which future research could achieve by partnering with a broker like Adam and Shauki (2014) did. Potential partners could be the new trading apps like Trade Republic or Robin Hood now established in the market, as they run their business exclusively online and solely focus on individual investors.

Second, this study can be characterized as a correlational study due to its research design. Therefore, it is not possible to conclude causality from the results, but only inferences on a correlational level. While this is a common limitation when investigating the decision-making process of individuals, future studies could still investigate whether interventions meant to change, for example, people's attitudes actually change people's intentions to make SRIs.

Third, the size and composition of the sample pose some limitations. Even though the actual sample size exceeded the minimal sample calculated based on Greens' (1991) recommendation, a bigger sample could have yielded more robust results. In addition, the utilized convenience sampling method led to results that were not representative, which might hamper the generalizability of the results (Babbie, 2015). Compared to the general population, the sample was younger and more highly educated, with most of the participants being female. Therefore, lower educated people and people without employment represented a small share of the analyzed sample, which can damage the robustness of the results found for the education and occupation variables. To avoid this, further research should gather a more representative sample of participants, especially in terms of age and education.

Fourth, the investment history of the participants proved to be a significant factor influencing their intention to make socially responsible investments. However, the investment history was only operationalized on a one-item scale and in a descriptive manner. Participants were only asked if they had invested in general or in SRIs before. This might be problematic, as previous research shows that consumers' repurchase intention depends on several factors (Hellier et al., 2003). Related to this is that this study did not investigate financial performance beliefs regarding SRIs. Therefore, future research should aim to investigate respondents' investment history in more detail, for example, by detailing purchase volume and frequency or investigating constructs like perceived quality and perceived value, which have been found to influence consumers' repurchase intention (Hellier et al., 2003).

Fifth, this research effort captures only one moment in time. This might make participants' answers prone to be distorted by short-term factors. An example could be the war in Ukraine, which started almost simultaneously with the data collection. Weapons were explicitly mentioned as an excluded investment for SRI on the information page. As the war evoked strong civil society responses calling for peace, the anti-war sentiment of the public might have influenced respondents.

5.4 Conclusion

Even though this study serves as a first step to better understanding individuals' motivation to make socially responsible investments, much remains unknown. The major shifts in how individual investors invest today and the ever-increasing importance of sustainability calls for further investigation. To achieve the transformation to a more sustainable world, it is essential to enable sustainable finance. And with individual investors accounting for a major share of financial markets, this is only possible by truly understanding what motivates their investment decisions.

6. Sources

Adam, A. A., & Shauki, E. R. (2014). Socially responsible investment in Malaysia: behavioral framework in evaluating investors' decision making process. *Journal of Cleaner Production*, *80*, 224-240. doi: 10.1016/j.jclepro.2014.05.075

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In: Kuhl, J., Beckmann, J. (Eds.) *Action Control* (pp. 11-39). SSSP Springer Series in Social Psychology. doi: 10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211. doi: 10.1016/0749-5978(91)90020-T

Ajzen, I. (2002). Residual effects of past on later behavior: Habituation and reasoned action perspectives. *Personality and Social Psychology Review*, *6*(2), 107-122. doi: 10.1207/S15327957PSPR0602_02

Ajzen, I. (2015). Consumer attitudes and behavior: the theory of planned behavior applied to food consumption decisions. *Italian Review of Agricultural Economics*, *70*(2), 121-138. doi: 10.13128/REA-18003

Ajzen, I. (2019). TPB Questionnaire Construction Constructing a Theory of Planned Behaviour Questionnaire. *University of Massachusetts Amherst,* 1–7. http://people.umass.edu/~aizen/pdf/tpb.measurement.pdf

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Prentice-Hall.

Alibeli, M. A., & Johnson, C. (2009). Environmental concern: A cross national analysis. *Journal of international and cross-cultural studies*, *3*(1), 1-10.

Alleyne, P., & Broome, T. (2011). Using the Theory of Planned Behaviour and Risk Propensity to Measure Investment Intentions among Future Investors. *Journal Of Eastern Caribbean Studies*, 36(1), 1-20. https://www.researchgate.net/publication/299483632

Anand, P., & Cowton, C. J. (1993). The ethical investor: Exploring dimensions of investment behaviour. *Journal of Economic Psychology*, *14*(2), 377-385. doi: 10.1016/0167-4870(93)90007-8

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-

analytic review. *British Journal of Social Psychology*, *40*(4), 471-499. doi: 10.1348/014466601164939

Arvola, A., Vassallo, M., Dean, M., Lampila, P., Saba, A., Lähteenmäki, L., & Shepherd, R. (2008). Predicting intentions to purchase organic food: The role of affective and moral attitudes in the Theory of Planned Behaviour. *Appetite*, *50*(2-3), 443-454. doi: 10.1016/j.appet.2007.09.010

Ary, D., Jacobs, L. C., & Razavieh, A. (2010). *Introduction to Research in Education* (8th Ed.). Wadsworth: Cengage Learning.

Asamoah, K. M. (2014). Re-examination of the Limitations Associated with Correlational Research. *Journal of Educational Research and Reviews*, 2(4), 45-52. http://www.sciencewebpublishing.net/jerr/archive/2014/July/pdf/Asamoah.pdf

Babbie, E. R. (2015). *The Practice of Social Research (14th ed).* Cengage Learning.

Bamberg, S. (2003). How does environmental concern influence specific environmentally related behaviors? A new answer to an old question. *Journal of Environment Psychology 23*(1), 21-32. doi: 10.1016/S0272-4944(02)00078-6

Barber, B. M., & Odean, T. (2013). The Behavior of Individual Investors. *Handbook of the Economics of Finance*, 2, 1533–1570. doi: 10.1016/B978-0-44-459406-8.00022-6

Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. (2005). An episodic process model of affective influences on performance. *Journal of Applied Psychology*, *90*(6), 1054. doi: 10.1037/0021-9010.90.6.1054

Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of Research in Personality, 25*(3), 285–301. doi: 10.1016/0092-6566(91)90021-H

Benson, K. L., & Humphrey, J. E. (2008). Socially responsible investment funds: Investor reaction to current and past returns. *Journal of Banking & Finance*, *32*(9), 1850-1859. doi: 10.1016/j.jbankfin.2007.12.013

BlackRock (2022). *BlackRock sustainable investing*. Retrieved 18 February, from https://www.blackrock.com/ch/individual/en/themes/sustainable-investing

Bollenn, N. P. (2007). Mutual fund attributes and investor behavior. *Journal of Financial and*

Quantitative Analysis, *42*(3), 683-708. doi: 10.1017/S0022109000004142

Borden, L. M., Lee, S. A., Serido, J., & Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of Family and Economic Issues*, *29*(1), 23-40. doi: 10.1007/s10834-007-9087-2

Bruyn, S. (1987). *The Field of Social Investment*. Cambridge University Press. doi:10.1017/CBO9780511570872

Bryman, A., & Bell, E. (2011). *Business Research Methods* (3rd ed.). Cambridge; New York: Oxford University Press Inc. https://www.uwcentre.ac.cn/haut/wp-content/uploads/2018/11/Alan_Bryman_Emma_Bell_Business_Research_Methodsb-ok.cc.pdf

Chan, S. (1999). The Chinese learner – a question of style. *Education + Training.* 41(6/7), 294–305. doi: 10.1108/00400919910285345

Cojuharenco, I., Cornelissen, G., & Karelaia, N. (2016). Yes, I can: Feeling connected to others increases perceived effectiveness and socially responsible behavior. *Journal of Environmental Psychology*, 48, 75–86. doi: 10.1016/j.jenvp.2016.09.002

Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology*, *28*(15), 1429-1464. doi: 10.1111/j.1559-1816.1998.tb01685.x

Cousins, T., Pentecost, M., Alvergne, A., Chandler, C., Chigudu, S., Herrick, C., Kelly, A., Leonelli, S., Lezaun, J., Lorimer, J., Reubi, D., & Sekalala, S. (2021). The changing climates of global health. *BMJ Global Health*, *6*(3), 1–6. doi: 10.1136/bmjgh-2021-005442

Cowton, C. J. & Sandberg, J. (2012). *Socially Responsible Investment*. In Ruth Chadwick (ed.), Encyclopedia of Applied Ethics, (2nd ed., pp. 142-151), Academic Press, doi: 10.1016/B978-0-12-373932-2.00086-7

Croy, P. G., Gerrans, P. A., & Speelman, C. P. (2012). *Psychological determinants of retirement savings behaviour: An application of the theory of planned behaviour*. Lambert Academic Publishing.

Chatterjee, S., (2021, June 11) *Retail investor base doubles in Europe as U.S. "meme" stock mania spreads - Euronext*. Reuters. https://www.reuters.com/business/retail-investor-

base-doubles-europe-us-meme-stock-mania-spreads-euronext-2021-06-11/

Daziano, R. A., & Bolduc, D. (2013). Incorporating pro-environmental preferences towards green automobile technologies through a Bayesian hybrid choice model. *Transportmetrica A: Transport Science*, 9(1), 74-106. doi: 10.1080/18128602.2010.524173

DeBondt, W. F., Muradoglu, Y. G., Shefrin, H. & Staikouras, S. K. (2008). Behavioural finance: quo vadis?. *Journal of Applied Finance (Formerly Financial Practice and Education), 18(2),* 7-21. http://breesefine7110.tulane.edu/wp-content/uploads/sites/110/2015/10/De-Bondt-et-all-single-paper.pdf

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business research*, *56*(6), 465-480. doi: 10.1016/S0148-2963(01)00241-7

Diekmann, A., & Franzen, A. (2018). Environmental Concern: A Global Perspective. *Einstellungen Und Verhalten in Der Empirischen Sozialforschung, 253–272.* doi:10.1007/978-3-658-16348-8_11

Domini, A. L., & Kinder, P. D. (1984). *Ethical investing.* Addison-Wesley.

Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, *11*(2), 130-141. doi: 10.1002/bse.323

Eagly, A. H., & Chaiken, S. (1993). *The Psychology of Attitudes*. New York: Harcourt brace Jovanovich college publishers.

East, R. (1993). Investment decisions and the theory of planned behaviour. *Journal of Economic Psychology*, *14*(2), 337-375. doi: 10.1016/0167-4870(93)90006-7

Eccles, N. S., & Viviers, S. (2011). The origins and meanings of names describing investment practices that integrate a consideration of ESG issues in the academic literature. *Journal of Business Ethics*, *104*(3), 389-402. doi: 10.1007/s10551-011-0917-7

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of twenty first century business Mankato.* MN: Capstone Publishing.

Engert, S., Rauter, R., & Baumgartner, R. J. (2016). Exploring the integration of corporate sustainability into strategic management: A literature review. *Journal of Cleaner Production*, *112*(1), 2833–2850. doi: 10.1016/j.jclepro.2015.08.031

Escrig-Olmedo, E., Muñoz-Torres, M. J., & Fernández-Izquierdo, M. Á. (2013). Sustainable development and the financial system: Society's perceptions about socially responsible investing. *Business Strategy and the Environment*, *22*(6), 410-428. doi: 10.1002/bse.1755

European Commision. (2006). *Implementing the Partnership for Growth and Jobs: Making Europe a Pole of Excellence on CSR*. COM(2006)136 Final, 1–13. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0136:FIN:EN:PDF

European Commission. (2018). *Distribution systems of retail investment products across the European Union*. 1–181. https://ec.europa.eu/info/sites/info/files/180425-retail-investment-products-distribution-systems_en.pdf

Field, A., Miles, J., & Field, Z. (2012). *Discovering statistics using R*. Sage publications. doi: 10.1111/insr.12011_21

Fishbein, M., Jaccard, J., Davidson, A. R., Ajzen, I., & Loken, B. (1980). Predicting and understanding family planning behaviors. In I. Ajzen, & M. Fishbein (Eds.), *Understanding attitudes and predicting social behavior.* Prentice Hall.

Flora, D. B. (2017). *Statistical methods for the social and behavioural sciences: A modelbased approach*. Sage.

Fox, J., & Monette, G. (1992). Generalized collinearity diagnostics. *Journal of the American Statistical Association*, *87*(417), 178-183. doi: 10.1080/01621459.1992.10475190

Fox, J. & Weisberg, S. (2011). *An R companion to applied regression*. (2nd ed.). Sage.

Frambach, R. T., Roest, H. C., & Krishnan, T. V. (2007). The impact of consumer internet experience on channel preference and usage intentions across the different stages of the buying process. *Journal of Interactive Marketing*, *21*(2), 26-41. doi: 10.1002/dir.20079

Frankel, M. L., & Duberg, J. A. (1984). Energy audits as an investment: The residential conservation service program analyzed. *Public Util. Fortn., 113*(8).

Fu, J. R., Farn, C. K., & Chao, W. P. (2006). Acceptance of electronic tax filing: A study of

taxpayer intentions. *Information & management*, *43*(1), 109-126. doi: 10.1016/j.im.2005.04.001

Gardini, S., & Grossi, G. (2018). What is known and what should be known about factors affecting financial sustainability in the public sector: A literature review. *Financial Sustainability and Intergenerational Equity in Local Governments*, 179-205. doi: 10.4018/978-1-5225-3713-7.ch008

Geczy, C. C., Stambaugh, R. F., & Levin, D. (2021). Investing in socially responsible mutual funds. *The Review of Asset Pricing Studies*, *11*(2), 309-351. doi: 10.1093/rapstu/raab004

Ghaljaie, F., Naderifar, M., & Goli, H. (2017). Snowball sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides in Development of Medical Education*, 14(3). doi: 10.5812/sdme.67670

Ghauri, P., Grønhaug, K., & Strange, R. (2020). Research Methods in Business Studies (5th ed.). Cambridge: Cambridge University Press. doi:10.1017/978110876242

Glac, K. (2009). Understanding socially responsible investing: The effect of decision frames and trade-off options. *Journal of Business Ethics*, *87*(1), 41-55. doi: 10.1007/s10551-008-9800-6

Godin, G., Conner, M., & Sheeran, P. (2005). Bridging the intention–behaviour gap: The role of moral norm. *British Journal of Social Psychology, 44(4),* 497-512. doi: 10.1348/014466604X17452

Granskog, A., Lee, L., Magnus, K.-H., & Sawers, C. (2020, July 17). *Survey: Consumer sentiment on sustainability in fashion.* McKinsey & Company, July, 1–9. https://www.mckinsey.com/industries/retail/our-insights/survey-consumer-sentiment-on-sustainability-in-fashion

Gravetter, F. J., & Wallnau, L. B. (2007). *Statistics for the behavioral sciences* (7th ed.). Thomson Wadsworth.

Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate Behavioral Research*, *26*(3), 499-510. doi: 10.1207/s15327906mbr2603_7

Hair, J., Black, W., Babin, B. & Anderson, R. (2010), *Multivariate Data Analysis*, Upper Saddle River: Pearson Education.

He, X., & Zhan, W. (2018). How to activate moral norm to adopt electric vehicles in China? An empirical study based on extended norm activation theory. *Journal of Cleaner Production*, *172*, 3546-3556. doi: 10.1016/j.jclepro.2017.05.088

Hellier, P.K., Geursen, G.M., Carr, R.A. and Rickard, J.A. (2003) Customer Repurchase Intention: A General Structural Equation Model. *European Journal of Marketing, 37,* 1762-1800. doi: /10.1108/03090560310495456

Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behaviour: A meta-analysis. *Journal of Environmental Education, 18*(2), 1–8. doi: 10.1080/00958964.1987.9943482

Hofmann, E., Hoelzl, E., & Kirchler, E. (2008). A comparison of models describing the impact of moral decision making on investment decisions. *Journal of Business Ethics*, *82*(1), 171-187. doi: 10.1007/s10551-007-9570-6

Horowitz, C. A. (2016). Paris agreement. *International Legal Materials*, *55*(4), 740-755. doi: 10.1017/S0020782900004253

Hylton, M. O. (1992). Socially Responsible Investing: Doing Good Versus Doing Well in an Inefficient Market. *The American University Law Review*, *42*(1), 1–52.

Kaplan, S., Gruber, J., Reinthaler, M., & Klauenberg, J. (2016). Intentions to introduce electric vehicles in the commercial sector: A model based on the theory of planned behaviour. *Research in Transportation Economics*, *55*, 12-19. doi: 10.1016/j.retrec.2016.04.006

Kim, Y., & Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel–a modification of the theory of planned behavior. *Journal of Sustainable Tourism*, *18*(8), 997-1014. doi: 10.1080/09669582.2010.490300

Koropp, C., Kellermanns, F. W., Grichnik, D., & Stanley, L. (2014). Financial decision making in family firms: An adaptation of the theory of planned behavior. *Family Business Review*, *27*(4), 307-327. doi: 10.1177/0894486514522483

Kowsmann, P., Ramey, C., Michaels, D. (2021, August 25). *U.S. Authorities Probing Deutsche Bank's DWS Over Sustainability Claims.* The Wall Street Journal. https://www.wsj.com/articles/u-s-authorities-probing-deutsche-banks-dws-over-sustainability-claims-11629923018

Kung, F. Y., Kwok, N., & Brown, D. J. (2018). Are attention check questions a threat to scale validity?. *Applied Psychology*, 67(2), 264-283. doi: 10.1111/apps.12108

Lanis, R., & Richardson, G. (2013). Corporate social responsibility and tax aggressiveness: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal*, *26*(1), 75–100. doi: 10.1108/09513571311285621

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of ConsumerMarketing*, 18(6), 503-520. doi: 10.1108/EUM0000000006155

Lasut, K. A., Tulung, J. E., & Pandowo, M. H. (2022). The influence of attitude, subjective norm, and perceived behavioral control on consumer's intentions towards sustainable behavior (study on bank sulutgo manado). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, *10*(1), 226-236. doi: 10.35794/emba.v10i1.37723

Lewellen, W. G., Lease, R. C., & Schlarbaum, G. G. (1977). Patterns of investment strategy and behavior among individual investors. *The Journal of Business*, *50*(3), 296-333.

Lewis, A., & Mackenzie, C. (2000). Support for investor activism among UK ethical investors. *Journal of Business Ethics*, *24*(3), 215-222. doi: 10.1023/A:1006082125886

Limkriangkrai, M., Koh, S., & Durand, R. B. (2017). Environmental, social, and governance (ESG) profiles, stock returns, and financial policy: Australian evidence. *International Review of Finance*, *17*(3), 461-471. doi: 10.1111/irfi.12101

Ludlow, P. (2018). The European Commission. In: Keohane, R.O. and Hoffmann, S., Eds., The New European Community, Routledge, New York, 85-132. doi: 10.4324/9780429496189-3

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin*, *18*(1), 3-9. doi: 10.1177/0146167292181001

Malhotra, D. (2010). The desire to win: The effects of competitive arousal on motivation and behavior. *Organizational Behavior and Human Decision Processes*, *111*(2), 139-146. doi: 10.1016/j.obhdp.2009.11.005

Mandell, L., & Klein, L. S. (2007). Motivation and financial literacy. *Financial Services Review*, *16*(2).

Manstead, A. S. R. (2000). The role of moral norm in the attitude–behavior relation. In D. J. Terry & M. A. Hogg (Eds.), *Attitudes, behavior and social context: The role of norms and group membership* (pp. 11–30). Lawrence Erlbaum Associates Publishers.

Martí-Ballester, C. P. (2015). Investor reactions to socially responsible investment. *Management Decision, 53(3), 571–604.* doi:10.1108/md-04-2014-0207

Mathieson, K. (1991). Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research*, *2*(3), 173-191. doi: 10.1287/isre.2.3.173

McLachlan, J., & Gardner, J. (2004). A comparison of socially responsible and conventional investors. *Journal of Business Ethics*, *52*(1), 11-25. doi: 10.1023/B:BUSI.0000033104.28219.92

McWilliams, A., & Siegel, D. (2001). Profit maximizing corporate social responsibility. *Academy of Management Review*, *26*(4), 504-505.

Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Valente Gonçalves, L. M. (2018). The value relevance of environmental, social, and governance performance: The Brazilian case. *Sustainability*, *10*(3), 574. doi: 10.3390/su10030574

Mutz, D. C. (2011). *Population-based survey experiments*. Princeton University Press.

Mohamed, M., Higgins, C., Ferguson, M., & Kanaroglou, P. (2016). Identifying and characterizing potential electric vehicle adopters in Canada: A two-stage modelling approach. *Transport Policy, 52,* 100–112. doi: 10.1016/j.tranpol.2016.07.006

Morgan Stanley (2019, August 6). *Sustainabile Investing's competitive Advantage*. Institude for Sustainable Investing. http://www.morganstanley.com/ideas/sustainable-investing-performance-potential/

Narat, I., & Rezmer, A. (2021, September 2). *Nachhaltige Investments: Die grüne Illusion.* Handelsblatt. https://www.handelsblatt.com/finanzen/anlagestrategie/trends/anlagestrategie-nachhaltige-investments-die-gruene-illusion/27571478.html

Nga, J. K., & Yien, L. K. (2013). The influence of personality trait and demographics on financial decision making among Generation Y. *Young Consumers*, 14(3), 230–243. doi:10.1108/YC-11-2012-00325

NGFS. (2019, April 10). *A call for Action: Climate Change as a Source of Financial Risk.* NGFS. https://www.ngfs.net/en/first-comprehensive-report-call-action

Nofsinger, J., & Varma, A. (2014). Socially responsible funds and market crises. *Journal of Banking & Finance*, *48*, 180-193. doi: 10.1016/j.jbankfin.2013.12.016

Nilsson, J. (2008). Investment with a conscience: Examining the impact of pro-social attitudes and perceived financial performance on socially responsible investment behavior. *Journal of Business Ethics*, *83*(2), 307-325. doi: 10.1007/s10551-007-9621-z

Nilsson, J. (2009). Segmenting socially responsible investors : The influence of financial return and social responsibility. *International Journal of Bank Marketing, 27(1),* 5–31. doi: 10.1108/02652320910928218

Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behavior antecedents: Environmental concern, knowledge, and beliefs. *Psychology & Marketing*, *31*(5), 335-348. doi: 10.1002/mar.20698

Paris Agreement (2015). In *Report of the Conference of the Parties to the United Nations Framework Convention on Climate Change (21st Session, 2015: Paris)*. (5), 2017. Retrived December (Vol. 4, p. 2017). HeinOnline.

Parker, C., Scott, S., & Geddes, A. (2019). *Snowball sampling.* SAGE Research Methods Foundations. doi: 10.4135/9781526421036831710

Petrillo, A., De Felice, F., García-Melón, M., & Pérez-Gladish, B. (2016). Investing in socially responsible mutual funds: Proposal of non-financial ranking in Italian market. *Research in International Business and Finance, 37*, 541-555. doi: 10.1016/j.ribaf.2016.01.027

Philips (2021. April 13). *Hungry for Investors, Some Companies Woo the little guy*.New York Times. www.nytimes.com/2021/04/13/business/stock-market-investors.html

Ramayah, T., & Suki, N. M. (2006). Intention to use mobile PC among MBA students: implications for technology integration in the learning curriculum. *UNITAR E-Journal*, *2*(2), 30-39. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.332.9609&rep=rep1&type=pdf

Renneboog, L., Ter Horst, J., & Zhang, C. (2008). Socially responsible investments:

Institutional aspects, performance, and investor behavior. *Journal of Banking & Finance*, *32*(9), 1723-1742. doi: 10.1016/j.jbankfin.2007.12.039

Revelli, C., & Viviani, J. L. (2013). The link between SRI and financial performance: effects and moderators. *Management international/International Management/Gestiòn Internacional*, *17*(2), 105-122. doi: 10.7202/1015403ar

Roberts, J. A. (1996). Green consumers in the 1990s: profile and implications for advertising. *Journal of Business Research*, *36*(3), 217-231. doi: 10.1016/0148-2963(95)00150-6

Rosen, B. N., Sandler, D. M., & Shani, D. (1991). Social issues and socially responsible investment behavior: A preliminary empirical investigation. *Journal of Consumer Affairs*, *25*(2), 221-234. doi: 10.1111/j.1745-6606.1991.tb00003.x

Rivis, A., Sheeran, P., & Armitage, C. J. (2009). Expanding the affective and normative components of the theory of planned behavior: A meta-analysis of anticipated affect and moral norms. *Journal of Applied Social Psychology*, *39*(12), 2985-3019. doi: 10.1111/j.1559-1816.2009.00558.x

Rubaltelli, E., Lotto, L., Ritov, I., & Rumiati, R. (2015). Moral investing: Psychological motivations and implications. *Judgment and Decision Making*, *10*(1), 64-75. http://journal.sjdm.org/14/14513a/jdm14513a.pdf

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (4th ed.). Pearson education.

Schnake, M. E., Williams, R. J., & Fredenberger, W. (2007). Relationships between frequency of use of career management practices and employee attitudes, intention to turnover, and job search behavior. *Journal of Organizational Culture, Communications and Conflict*, *11*(1), 53.

Schueth, S. (2003). Socially responsible investing in the United States. *Journal of Business Ethics*, *43*(3), 189-194. doi: 10.1023/A:1022981828869

Schlegelmilch, B. B. (1997). The relative importance of ethical and environmental screening: Implications for the marketing of ethical investment funds. *International Journal of Bank Marketing*, 15(2), 48–53. doi:10.1108/02652329710160457

Schwartz, S. H. (1977). Normative influences on altruism. In *Advances in Experimental*

Social Psychology, 10(C), 221–279. https://doi.org/10.1016/S0065-2601(08)60358-5

Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, *16*(15), 1699-1710. doi: 10.1016/j.jclepro.2008.04.020

Shaw, D., McMaster, R., & Newholm, T. (2016). Care and commitment in ethical consumption: An exploration of the 'attitude–behaviour gap'. *Journal of Business Ethics*, *136*(2), 251-265. doi: 10.1007/s10551-014-2442-y

Shalender, K., & Sharma, N. (2021). Using extended theory of planned behaviour (TPB) to predict adoption intention of electric vehicles in India. *Environment, Development and Sustainability*, *23*(1), 665-681. doi: 10.1007/s10668-020-00602-7

Sharma, M., & Gupta, S. (2011). Role of subjective norm in investment decision making of casual investors. *Indian Journal of Finance*, *5*(11), 1-12.

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, *15*(3), 325-343. doi: 10.1086/209170

Shih, Y. Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3), 213-223. doi: 10.1108/10662240410542643

Simon, J. G., Powers, C. W., & Gunnemann, J. P. (1972). *The ethical investor: Universities and corporate responsibility.* New Haven: Yale University Press

Sparkes, R., & Cowton, C. J. (2004). The maturing of socially responsible investment: A review of the developing link with corporate social responsibility. *Journal of Business Ethics*, *52*(1), 45-57. doi: 10.1023/B:BUSI.0000033106.43260.99

Statista (2020, March 18). *Development of assets of global exchange traded funds (ETFs) from 2003 to 2020. Financial Instruments & Investments*. https://www.statista.com/statistics/224579/worldwide-etf-assets-under-management-since-1997/#:~:text=In%202020%2C%20the%20assets%20managed,approximately%207.74%20trillion%20U.S.%20dollars.

Strom, S. (2011, November 24). *To Advance Their Cause, Foundations Buy Stocks*. New

York Times. https://www.nytimes.com/2011/11/25/business/foundations-come-to-the-aid-of-companies.html

Teo, T. S., & Pok, S. H. (2003). Adoption of WAP-enabled mobile phones among Internet users. *Omega*, *31*(6), 483-498. doi: 10.1016/j.omega.2003.08.005

Tippet, J. (2001). Performance of Australia's ethical funds. *Australian Economic Review*, *34*(2), 170-178. doi: 10.1111/1467-8462.00186

Tippet, J., & Leung, P. (2001). Defining ethical investment and its demography in Australia. *Australian Accounting Review*, *11*(25), 44-55. doi: 10.1111/j.1835-2561.2002.tb00389.x

Trivedi, R. H., Patel, J. D., & Acharya, N. (2018). Causality analysis of media influence on environmental attitude, intention and behaviors leading to green purchasing. *Journal of Cleaner Production*, *196*, 11-22. doi: 10.1016/j.jclepro.2018.06.024

Turner, M. R., McIntosh, T., Reid, S. W., & Buckley, M. R. (2019). Corporate implementation of socially controversial CSR initiatives: Implications for human resource management. *Human Resource Management Review*, *29*(1), 125-136. doi: 10.1016/j.hrmr.2018.02.001

United Nations (n.d.). *Sustainable Development Goals*. Deparment of Economic and Social Affairs. https://sustainabledevelopment.un.org/sdgs

United Nations Climate Change (n.d.). *The Paris Agreement.* https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

Urban, D. (1986). Was ist Umweltbewußtsein?. *Zeitschrift für Soziologie*, *15*(5), 363-377. doi: 10.1515/zfsoz-1986-0504

US Securities and Exchange Commission. (n.d.). *Mutual Funds.* Retrieved 01 March 2929, from https://www.investor.gov/introduction-investing/investing-basics/investment-products/mutual-funds-and-exchange-traded 1#:~:text=A%20mutual%20fund%20is%20a,are%20known%20as%20its%20portfolio.

Valentine, D. B., & Powers, T. L. (2013). Generation Y values and lifestyle segments. *Journal of Consumer Marketing*, *30*(7), 597–606. doi: 10.1108/JCM-07-2013-0650

Webb, D. J., Mohr, L. A., & Harris, K. E. (2008). A re-examination of socially responsible

consumption and its measurement. *Journal of Business Research*, *61*(2), 91-98. doi: 10.1016/j.jbusres.2007.05.007

Whitelock, V. G. (2019). Multidimensional environmental social governance sustainability framework: Integration, using a purchasing, operations, and supply chain management context. *Sustainable Development*, *27*(5), 923-931. doi: 10.1002/sd.1951

Wielki, J. (2020). Analysis of the role of digital influencers and their impact on the functioning of the contemporary online promotional system and its sustainable development. Sustainability, 12(17), 7138. doi: 10.3390/su12177138

Williams, G. (2007). Some determinants of the socially responsible investment decision: A cross-country study. *Journal of Behavioral Finance*, *8*(1), 43-57. doi:10.1080/15427560709337016

Wins, A., & Zwergel, B. (2016). Comparing those who do, might and will not invest in sustainable funds: A survey among German retail fund investors. *Business Research*, *9*(1), 51-99. doi: 10.1007/s40685-016-0031-x

World Commission on Environment and Development. (1987). Our Common Future Oxford. *UK: Oxford University Press*.

Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, *135*, 732-739. doi: 10.1016/j.jclepro.2016.06.120

7. Appendix

7.1 Appendix A: Questionaire

Informed Consent

Dear respondent,

Thank you for your interest and support in this survey! My name is Carla Herden and I'm currently doing my master's degree at the Católica Lisbon School of Business and Economics.

This master thesis aims to gain further insights into **what leads people to invest in socially responsible investments**. Your assistance is highly appreciated!

This survey will take around **5 minutes** to complete. Please, read the questions carefully and answer them honestly. It will not be possible to trace your answers back to you. All information collected will be kept confidential, treated anonymously, and used for research purposes only. Your participation is entirely voluntary, and you may withdraw or refuse to participate for any reason. Please note there are no right or wrong answers.

If you have any questions regarding the survey, please feel free to contact me via e-mail at xxxxxxxx@alunos.lisboa.ucp.pt

Thank you!

Please note: You must be 18 or older to participate in this study.

I have read and understood the consent from above, and I agree to participate in this study:
Answers: 1= I consent, begin the study; 2 = I do not consent

Please read the description below carefully to have a common understanding about the topic:

The survey will be about socially responsible investments.

Socially responsible investments integrate personal values and societal concerns into investment decision-making.

The most popular socially responsible investments are socially responsible funds, which can be defined as "ethical and sustainable funds." Essentially those funds aim to make a profit while not investing in societally or environmentally harmful activities. Therefore, socially responsible funds do not invest in gun production, tobacco, weapons, deforestation or other activities that can be considered ethically and environmentally challenging.

Which gender do you identify as?
Answers: 1 = Female; 2 = Non binary / third gender 3 = Prefer not to say

What is your age?
Answers: free text

What is your nationality?
Answers: 1 = German; 2 = Portuguese 3 = Others: (free text)

What is the highest degree or level of education you have completed?
Answers: 1 = Primary School: 2 = Secondary School; 3 = High School; 4 = Bachelor's Degree; 5 = Master's Degree or comparable (e.g. Diploma) 6 = PhD; 7 = Other (free text)

Please indicate your current occupation.
Answers: 1 = Student; 2 = Employed; 3 = Self-employed; 4 = Retired; 5 = Unemployed; 6 = Other (free text)

I have already invested in any form of investment (such as funds or shares).
Answers: 1 = Yes; 2 = No; 3 = Not sure

I have already invested in socially responsible investments.
Answers: 1 = Yes; 2 = No; 3 = Not sure

Measuring Attitude

Please indicate how much you agree or disagree with the statements below.

I consider socially responsible investments to be (...)
Answers: 1 = Very unfavourable; 2 = Unfavourable 3 = Neither unfavourable nor favourable; 4 = Favourable 5 = Very favourable

Answers: 1 = Very negative; 2 = Negative 3 = Neither negative nor positive; 4 = Positive; 5 = Very positive

Answers: 1 = Very undesirable; 2 = Undesirable; 3 = Neither undesirable nor desirable; 4 = Desirable; 5 = Very desirable

---

Measuring Subjective Norm

Please indicate how much you agree or disagree with the statements below.

The people who are important to me want me to make socially responsible investments in the near future.

Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

While investing, I consider the wishes of other people who are important to me.

Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

If I make socially responsible investments, people who are important to me will also make socially responsible investments.

Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

The people who influence my opinions prefer that I make socially responsible investments when making investments in the future.

Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

---

Measuring Perceived Behavioral Control

Please indicate how likely or unlikely do you consider the statements below to be.

If I want to make socially responsible investments, I can easily do it.
Answers: 1 = Extremely unlikely; 2 = Unlikely 3 = Neither likely nor unlikely; 4 = Likely 5 = Extremely likely

I have the knowledge to make socially responsible investments.
Answers: 1 = Extremely unlikely; 2 = Unlikely 3 = Neither likely nor unlikely; 4 = Likely 5 = Extremely likely

There are plenty of opportunities for me to make socially responsible investments.
Answers: 1 = Extremely unlikely; 2 = Unlikely 3 = Neither likely nor unlikely; 4 = Likely 5 = Extremely likely

---

Measuring Environmental concern

Please indicate how much you agree or disagree with the statements below.

I think individuals and society have the responsibility to protect the environment.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

I think environmental issues have become more serious in recent years.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

If you're paying attention please select "strongly agree".

Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

I take into account environmental consequences while making investment decisions.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

I think we should live in harmony with the environment to achieve sustainable development.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

---

Measuring Moral Norm

Please indicate how much you agree or disagree with the statements below.

I feel an obligation to make socially responsible investments rather than convential investments.
Answers: 1 = Definitely false; 2 = Probably false; 3 = neither true nor false; 4 = Probably true; 5 = Definitely true

Making socially responsible investments rather than conventional investments makes me feel like a better person.
Answers: 1 = Definitely false; 2 = Probably false; 3 = neither true nor false; 4 = Probably true; 5 = Definitely true

If I make socially responsible investments rather than conventional investments, I feel as if I am making a personal contribution to something better.
Answers: 1 = Definitely false; 2 = Probably false; 3 = neither true nor false; 4 = Probably true; 5 = Definitely true

---

Measuring Perceived Consumer Effectiveness

Please indicate how much you agree or disagree with the statements below.

By making socially responsible investments, every person can have a positive effect on the environment.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

Every person has power to influence social problems by investing in responsible companies.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

It does not matter if I invest my money in socially responsible investments since one person acting alone cannot make a difference.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

It is useless for the individual consumer to do anything about pollution.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

---

Measuring Intention

Please indicate how much you agree or disagree with the statements below.

I am willing to make socially responsible investments when investing in the future.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

I intend to make socially responsible investments when investing in the future.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

I plan to make socially responsible investments when investing in the future.
Answers: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

---

Thank you for your time spent taking this survey.
Your response has been recorded.
If you have any additional questions you can contact me via
152120494@alunos.lisboa.ucp.pt

7.2 Appendix B: Sample Characteristics

Table B1

Sample Characteristics

Variable	Absolute frequency	Relative frequency
Gender		
Female	189	58.3%
Male	134	41.4%
Prefer not to say	1	0.3%
Nationality		
German	263	81.2%
Not German	61	18.8%
Education		
Secondary School	7	2.2%
High School	51	15.7%
Bachelor's Degree	127	39.2%
Master's Degree or comparable	124	38.3%
PhD	8	2.4%
Other	7	2.2%
Occupation		
Student	108	33.3%
Employed	171	52.8%
Self-employed	24	7.4%
Retired	9	2.8%
Unemployed	7	2.2%
Other	5	1.5%
Investments		
Invested before	198	61.1%
Not invested before	122	37.7%
Not sure	4	1.2%
Socially Responsible Investments		
Invested before	82	25.3%
Not invested before	207	63.9%
Not sure	35	10.8%

Note. $n = 324$

7.3 Appendix C: Reliability Testing Results

Table C1

Reliability Testing Results

Variable	Number of Items	Cronbach's Alpha
1. Attitude	3	0.79
2. Subjective Norm	4	0.76
3. Perceived Behavioral Control	3	0.76
4. Moral Norm	3	0.79
5. Environmental Concern	4	0.62
6. Perceived Consumer Effectiveness	4	0.59
7. Intention	3	0.91

7.4 Appendix D: Variance Inflation Factor

Table D1

Generalized Variance Inflation Factor (GVIF) for all Constructs

Variable	Squared GVIF $^{1/(2\cdot df)}$
Attitude	1.44
Subjective Norm	1.26
Perceived Behavioral Control	1.40
Moral Norm	1.79
Environmental Concern	1.41
Perceived Consumer Effectiveness	1.15
Gender	1.24
Age	2.01
Nationality	1.15
Education	1.20
Occupation	1.32
Investments	1.57
Socially Responsible Investments	1.31