

Unleashing the Powerful Few: Sustainable Investing Behaviour of Wealthy Private Investors

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Abstract

Despite their apparent interest, private investors are surprisingly disengaged from sustainable investing, an observation that has received limited scholarly attention. This theory building study draws on the theory of planned behaviour to conceptualize the decision-making process of private investors towards sustainable investing. Findings from literature provide some insights but do not yield a comprehensive answer as to why private investors refrain from sustainable investing. Interviews with wealthy private investors led us to identify a generally high interest in sustainable investing and dominant barriers that prevent actual engagement. Barriers are the perception of high volatility within sustainable investments in combination with, first, a short investment time horizon and, second, recent financial losses. Third, we find that investment advisors withhold required information from their clients. We suggest a decision-making framework that facilitates a better understanding of the engagement of private investors in sustainable investing and outline avenues for future research and implications for practitioners.

Keywords

sustainable investing, private investors, theory of planned behaviour, investment decision making, time orientation

Introduction

Academic- and practitioner-oriented literature has paid significant attention to the incorporation of sustainability criteria into capital market investment decisions, or *sustainable investing* (SI; Global Sustainable Investment Alliance [GSIA], 2013). The amount of assets and the number of market participants engaged in SI has grown substantially worldwide and accounts for approximately US\$14 trillion in investments (GSIA, 2013) and over 1,100 institutions committed to SI to date (United Nations Principles of Responsible Investing, 2013). However, in Europe, the region where SI is most prominent, institutional investors, such as pension funds, govern 97% of the total assets under management in SI while only 3% are held by private investors (Eurosif, 2012a; GSIA, 2013). Therefore, we disagree with claims that SI is a mainstream practice widely applied in capital markets (e.g., Eurosif, 2012a; Sievänen, Rita, & Scholtens, 2013). While this

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claim may hold true for institutional investors, it does not for private investors. For private investors there seems to be a dichotomy between interest in SI and actual engagement in SI. Empirical evidence shows that the majority of people, including wealthy private investors, are potentially interested in SI (Eurosif, 2012b; Gallup, 2009; Wins & Zwergel, 2014). However, surveys find that the SI-market potential amongst private investors is far from being realized (Schrader, 2006) as they face barriers that limit their engagement in SI. The observed asymmetry between the engagement in SI by institutional and private investors cannot be explained by the distribution of assets either, as institutions govern an estimated US\$80 trillion compared with US\$50 trillion in private financial wealth (Çelik & Isaksson, 2014; Shorrocks, Davies, & Lluberas, 2013). In light of this “SI gap”—the gap between expected and actual engagement of private investors in SI—this study is motivated by the question, “What are the barriers that limit the engagement of private investors in SI?”

This study is a theory-building effort that aims to understand the reasoning behind the SI gap. It also provides answers to specific calls for research: As SI is still an emerging field, research on decision-making processes at the micro-level of SI adoption is required (Gond, Louche, Slager, Juravle, & Yamahaki, 2011; Juravle & Lewis, 2008), especially on barriers (Glac, 2008) and wealthy private investors (Schrader, 2006). This article develops a decision-making framework based on the theory of planned behaviour (Ajzen, 1991; Ajzen & Madden, 1986). This theory has proven useful to explain variations in individual behaviour with regard to, for example, environmental cognition (Henry & Dietz, 2012), sustainable behaviour in the business sphere (Lulfs & Hahn, 2014), or equity investments (East, 1993). By applying the extant SI literature to the framework, we show that some answers are given but explanations for the SI gap remain limited. In our empirical work, we conducted interviews with wealthy private investors that have more than US\$1 million in freely investable assets; a very small, secretive segment that governs 40% of total household wealth (Shorrocks et al., 2013). Our analysis points to a high interest in SI and three dominant barriers. Two barriers pertain to the perception of the volatility of SI. Investors who perceive SI as overly volatile were unlikely to engage in SI when they had a short investment time horizon or when they had experienced prior general losses. The third barrier relates to investment advisors that withhold SI information. Through the application of our exploratory empirical data, we develop a framework that allows for a more fine-grained understanding of the decision-making process of private investors in the SI context.

The next section provides a background on sustainable investing, followed by the conceptual decision-making framework used in this study and the application of SI literature to it. Subsequent sections outline the empirical method applied and present the interview results along the structure of the framework. We close with a discussion and conclusion.

Background: Sustainable Investing

The general understanding of what SI entails is to “integrate certain kinds of non-financial concerns—variously called *ethical*, *social*, *environmental*, or *corporate governance* criteria—in the otherwise strictly financials-driven investment process” (Sandberg, Juravle, Hedesström, & Hamilton, 2008, p. 519). This can be achieved through a focus on certain industries (e.g., renewable energy), and likewise their exclusion (e.g., weapons, tobacco), or by the integration of environmental, social, and corporate governance criteria into investment decisions. The advantage of our broad definition of SI beyond the “responsible” or “ethical” terminology is that it does not restrain the discussion to any narrow interpretation of SI. In practice, SI is a broad field of investment approaches. Most prominent are the application of exclusion criteria and the integration of environmental, social, and corporate governance criteria in mainstream security selection. A much smaller tranche of assets is invested in more volatile industries or themes such as water or renewable energy, or in new asset classes such as microfinance (GSIA, 2013).

The SI literature is focused on the financial performance of SI on the level of firms or mutual funds (Gond et al., 2011). On the level of SI mutual funds, the risk-adjusted performance is found to be “not statistically different from the performance of conventional funds” (Renneboog, Ter Horst, & Zhang, 2008, p. 1). Also on the level of individual firms no negative performance implications are found (Albertini, 2013; Orlitzky, Schmidt, & Rynes, 2003; Surroca, Tribó, & Waddock, 2010). Beyond financial performance, literature on non-financial aspects of SI discusses a range of arguments for engaging in SI, from a “warm glow,” or positive feelings, to ethical concerns and social status (e.g., Andreoni, 1990; Dunfee, 2003; Statman, 2004).

Regarding the segment of private investors, some studies cover investor characteristics, motivations, and, to a lesser degree, barriers of SI-investors as well as comparisons with non-SI investors (e.g., Cheah, Jamali, Johnson, & Sung, 2011; Nilsson, 2009; Nilsson, Nordvall, & Isberg, 2010; Sandberg et al., 2008; Sandberg & Nilsson, 2011). However, there is no clear answer to the SI-gap. It remains unclear why some individual investors practice SI while others do not (Glac, 2008). The literature does not provide a clear picture of what the dominant barriers are, if and how barriers and other aspects relate to each other, and what kind of combinations matter.

Amongst private investors, particularly interesting are individuals with more than US\$1 million in freely investable assets, known as High Net Worth Individuals (HNWIs; Eurosif, 2012b). HNWIs make up 0.7% of the world population, yet they govern more than 40% of global household wealth (Shorrocks et al., 2013), and thus can substantially contribute to more SI engagement. HNWIs appear to be interested in considering sustainability topics such as climate change in their investment decisions since they “are typically long-term investors whose aim is to preserve capital for the next generations to come” (Eurosif, 2012b, p. 7). Furthermore, HNWIs are in a preferable situation to invest along their interests, since they “have access to investments that are normally closed to smaller retail investors, and the freedom to move funds quickly without having to perform the extensive due diligence required by institutional investors” (Eurosif, 2012b, p. 7). However, the observed SI gap persists, and although that puzzle lends itself to scholarly work, research into this group that is well-guarded by private banks and their advisors appears to be non-existent. Insights on HNWIs in the context of SI are therefore required (Schrader, 2006), which is where this study contributes with empirical work.

In light of the observed gaps in literature, we undertake a corresponding theory building effort. We draw from literature and our empirical work with HNWIs to develop a decision-making framework for private investors’ engagement in SI based on the theory of planned behaviour, including a perspective on dominant barriers. Next, we outline the initial framework.

Theory of Planned Behaviour in the Context of Sustainable Investing

To predict behaviour, scholars focus on frameworks to link evaluative criteria to the formation of an intention towards a specific behaviour, coupled with the factors that limit the realization of that behaviour (Kalafatis, Pollard, East, & Tsogas, 1999). Most prevalent amongst these frameworks is the theory of planned behaviour (Ajzen, 1991; Ajzen & Madden, 1986). Theory of planned behaviour (TPB) has been found to provide high explanatory power and is useful in understanding a wide range of individual behaviours (Ajzen, 2014). With regard to sustainability, TPB is applied to understand the determinants of individual behaviour in the context of, for example, pollution reduction preferences (Cordano & Frieze, 2000), sustainable behaviour in the corporate sphere (Lulfs & Hahn, 2014), unethical behaviour (Chang, 1998), green marketing (Kalafatis et al., 1999), recycling (Ramayah, Lee, & Lim, 2012), water saving technology (Lynne & Casey, 1995), and environmental attitude (Kaiser, Wölfling, & Fuhrer, 1999). These studies demonstrate the suitability of TPB to explain and predict the variance in the behaviour of individuals in activities related to sustainability. However, they also show that different factors

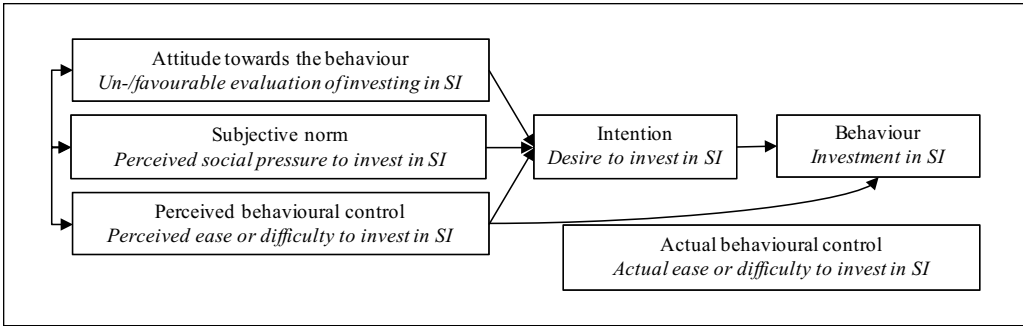


Figure 1. Theory of planned behaviour framework adapted to the context of sustainable investing.
Source. Adapted from Ajzen and Madden (1986).

matter to understand behaviour in different contexts. With regard to the application of TPB in the general context of investment decisions—that is, without a specific link to sustainability—East (1993) discusses the role of relatives and friends, easy access to funds, expected financial profit, and the risk of the investment. Also, in the investment context, Maula, Autio, and Arenius (2005) show that whether individuals invest in new businesses owned by others is influenced by the personal familiarity with entrepreneurs, status as an owner-manager in a firm, perceived skills in starting a new business, and gender. We are not aware of an application of TPB to SI. In TPB, behaviour is predicted by intention, which is predicted by three determinants—*attitude towards the behaviour*, *subjective norm*, and *perceived behavioural control*. We relate these *determinants of behaviour* of the TPB framework to SI, with the result shown in Figure 1.

Attitude towards the behaviour refers to the attributes, outcomes, and consequences that are associated with the behaviour, that is, if the behaviour is deemed attractive or not. For example, an individual might associate the behaviour of eating a chocolate cake with not only a great sweet taste and feeling satisfied, but also with calories and feeling guilty for becoming fat. Whichever association weighs more strongly will determine if attitude towards the behaviour is positive or negative. In investment decisions, associations that matter for the formation of a positive attitude are, for example, high financial profits and low volatility (East, 1993). With regard to SI, several studies point to financial performance, risk, and non-financial factors as important to investors (Beal & Goyen, 1998; Bollen, 2007; Chatterji, Levine, & Toffel, 2009; Eurosif, 2012b; Nilsson, 2009; Rosen, Sandler, & Shani, 1991; Statman, 2004). Thus, we expect that high financial profits and investment security or low volatility are supportive factors in the decision-making process in the SI context. Since SI also covers non-financial factors such as ethical considerations and personal values, we infer along the findings of psychologist Festinger (1957) that investors will seek to align their beliefs with their investments. Thus, investors evaluate those opportunities that align with their values more positively. As literature points to a neutral risk/return implication of SI, and SI should be positioned positively with regard to non-financial considerations, we expect a positive attitude towards the behaviour in SI.

Subjective norm, the second predictor of intention, refers to the social pressure that the individual perceives towards the behaviour. Subjective norm results from the perception of what important peers or groups think about the behaviour, and the motivation to comply with these views. Eating a chocolate cake might be approved of by a person's office colleagues, but frowned on by his marathon-running manager. As for investment decisions, East (1993) shows that the intention of a person to invest in shares is significantly influenced by the opinion of relatives and friends. Surveys find that the majority of Europeans consider sustainability important (Gallup, 2009); a representative study for Germany indicates that more than half of the citizens

are generally interested in SI (Wins & Zwergel, 2014). Also, wealthy private investors appear interested in SI (Eurosif, 2012b). Thus, we expect that there is some sort of perceived public pressure to invest in SI, and this subjective norm is supportive towards the intention to invest in SI.

Perceived behavioural control, the last predictor of intention, is the perceived ease or difficulty to actually implement the behaviour of interest. That includes the person's perception of resources that are required, such as sufficient information as well as opportunities or challenges to implement the behaviour. Consider that the bakers in the entire neighbourhood are perceived incapable of making proper cake. A supportive attitude towards the behaviour and subjective norm will result in a less strong intention to eat cake in such a situation compared with a situation where an artisan cake shop is found just down the street. In the investment context, East (1993) finds that investors who feel that they can't easily buy shares do not do so. Thus, we expect perceived behavioural control, the perception of sufficient information, opportunities, and low barriers, to impact private investors' formation of the intention to invest in SI.

In addition to its role as one of the three factors that determine intention formation, perceived behavioural control can also influence the behaviour in another way: A factor called *actual behavioural control* relates to perceived behavioural control, but pertains not to perceived barriers yet rather actual real-world barriers and opportunities that the person faces once the intention for a certain behaviour is formed. Such external aspects can hinder or facilitate the translation of that intention into action. As an example, consider the person who formed the intention to eat cake and went to the artisan cake shop down the street, but found it closed. East (1993) argues that investment decisions are so fact-based that no major difference between actual control and perceived control should exist. However, SI can be complex and new to some investors. Unanticipated regulatory barriers, advisors that are not accustomed to SI, or other roadblocks could limit people's ability to move from intention to behaviour. Thus, we expect that also the last determinant of behaviour, actual behavioural control, matters in the SI context.

In sum, we can relate each determinant of behaviour in the TPB framework to SI. We propose a correspondingly adapted wording of the framework as shown in Figure 1. As in other contexts related to sustainability, with this framework we expect to understand why individuals invest in SI, or why they do not invest, as observed in the SI gap, and to explain such variation.

Literature Related to the Determinants of Private Investors' Behaviour in SI

Depending on the balance of positive and negative connotations, the three determinants of behaviour in the TPB framework either support or limit the formation of the intention to invest in SI. The intention leads to the behaviour of investing in SI, if no limitations from actual behavioural control constrain that. In our effort to develop a framework that helps to understand the decision-making process of private investors in SI, we relate insights from the SI literature to positive and negative connotations of each *determinant of behaviour*. Since the observed SI gap indicates that barriers keep investors from investing in SI, we focus our review on barriers, which we define as "departures from rational thought in predictable directions" (Shu & Bazerman, 2010, p. 3). An overview of studies that pertain to barriers for private investors in SI is presented in Table 1. Furthermore, Table 2 outlines studies on motivations as well as our results of inferring barriers by negating the aspects that these studies identified as motivations for SI.

With regard to *attitude towards the behaviour*, empirical work with private investors has identified the perception of a low financial performance or high risk of SI as a potential barrier (Eurosif, 2012b; Glac, 2008). Financial risk was recognized as a barrier in SI because it conflicts with the moral obligation to bequeath wealth to heirs (Lewis, 2001). With regard to non-financial aspects, the perception that SI products fail to comply with expectations on ethics,

Table 1. Overview of Studies Related to SI Barriers for Individual Private Investors.

| Study | Aim, research question(s) | Methodology | Barrier(s) identified | Comment |
|---------------------------|--|--|---|--|
| Lewis (2001) | What motivates ordinary, neutral and SI-investors to invest? | Focus groups (94 private investors) | Fear of low financial return of SI conflicts with moral obligation to bequeath; inertia | Heirs as a barrier is contrary to Eurosif (2012b) (see Table 2) |
| Hummels and Timmer (2004) | Does ESG or ethical (SEE) reporting meet shareholders' needs? | Multi-case study (3 companies) | Insufficient corporate SEE reporting for financially motivated investors | "Insufficient information" as a barrier is contrary to Nilsson, Siegl, and Korling (2012) |
| Glac (2008) | Why do some individual investors practice SI and others do not? | Experimental survey (240 students) | Some investors might be less willing to sacrifice financial returns and associate these with SI | No clear barrier identified but inferred; calls for further research on barriers |
| Schrader (2006) | What role do advisors at retail banks play as diffusion agents of ethical funds? | Mystery shopping (21 advisors) | Retail advisors do not inform retail clients about ethical funds | Limited to retail investors; calls for further research on other regions and wealthy investors |
| Berry and Junkus (2013) | What is the attitude and understanding of individual investors towards SI? | Survey (5,000 individual investors) | Exclusionary SI approaches could mismatch investors' interest in more holistic approaches | Specific barrier inferred from survey results; contrary to Nilsson et al. (2012) |
| Nilsson et al. (2012) | How do consumers evaluate pro-socially positioned mutual funds in the post-purchase stage? | Literature review | Overwhelming heterogeneity and varying quality of SI mutual fund data | Specific barrier inferred from literature rather than by empirics; covers only the retail market |
| Nilsson (2008) | What is the impact of pro-social or financial performance, socio-demographic factors on SI investors' behaviour? | SI customer data (528 private investors) | Mistrust towards the various marketed merits of SI | Specific barrier inferred from a non-SI study by Crane (2000) |
| Eurosif (2012b) | Practitioner study on the status of SI for HNWIs, family offices and banks | Survey (undisclosed respondents) | Lack of products; mistrust; lack of advice; financial performance and risk concerns | Utility of sample is limited due to an undisclosed number, type and distribution of respondents |

irresponsible business practices, or support for sustainable development could also be a barrier. Such aspects have been found to matter for private investors, sometimes more so than financial performance (Beal & Goyen, 1998; Lewis, 2002; Rosen et al., 1991; Webley, Lewis, & Mackenzie, 2001).

Subjective norm relates to public pressure to invest in SI. It appears that the public including HNWIs are likely interested in SI (Eurosif, 2012b; Gallup, 2009; Wins & Zwergel, 2014). Furthermore, literature suggests that some investors engage in SI in the expectation of a preferable public image (Chatterji et al., 2009; Statman, 2004). Yet the literature does not indicate potential barriers that could negatively influence this subjective norm.

In *perceived behavioural control*, investors, in their thought process about the ease of investing in SI, can perceive a number of barriers related to the availability of SI products. One barrier could be a perceived mismatch between the focus of SI products on excluding industries and

Table 2. Studies Related to SI Motivators for Individual Private Investors; Inferred SI-Barriers.

| Study | Aim, research question(s) | Methodology | SI motive(s) identified | SI barrier(s) inferred |
|-------------------------|--|--|---|--|
| Rosen et al. (1991) | Identify characteristics of socially responsible investors, salient issues and expectations | Survey (4,000 individual investors of two funds that incorporate social screens) | Avoid poor environmental and/or labour relations practices and achieve a satisfactory financial performance and way of life | Poor ethical, labour relations, financial performance or fit with lifestyle |
| Eurosif (2012b) | Practitioner study on the status of SI for HNWIs, family offices, banks | Survey (undisclosed number, type and distribution of respondents) | Contribute to sustainable development, financial opportunity, wealth preservation | Poor contribution to sustainable development or financial return; no heirs |
| Bollen (2007) | Does the behaviour of SI investors differ from the behaviour of investors in conventional funds? | Regression on fund flows within SI funds versus conventional funds | Utility from owning securities of companies consistent with personal values and societal concerns | Products inconsistent with personal values or societal concerns |
| Nilsson (2009) | Identify reasons for investors to invest in SI-profiled mutual funds | Cluster analysis of survey data (563 individual investors) | Positive financial performance, satisfy social responsibility aims | Poor financial or social performance |
| Beal and Goyen (1998) | What are the motivations for investors to invest in a nature conservation firm? | Survey (739 individual shareholders of a nature conservation firm) | Counter environmental concerns, positive financial performance | Poor environmental contribution or financial performance |
| Lewis (2001) | What motivates ordinary, neutral and SI-investors to invest in SI? | Focus groups (94 private investors) | Avoid investments in firms with unacceptable ethical or environmental practices | Poor ethical or environmental performance of firms prevalent in SI products |
| Statman (2004) | Analogy from restaurants to financial products and investors | Theoretical work | Utilitarian benefits beyond low risk and high expected returns; social status | Poor utilitarian and/or expressive benefits |
| Chatterji et al. (2009) | How well do KLD ratings inform about past and likely future environmental performance? | Regression analysis (588 US firms) | Theory-derived motive clusters: Good financial performance, ethical concerns, desire to punish/reward firms, social status | Poor financial or ethical performance, rewarding/punishing effectiveness, or effect on social status |

peoples' own interests, since "investors seem to prefer to reward firms who display overall positive social behaviour rather than to exclude firms on the basis of certain products or practices" (Berry & Junkus, 2013, p. 707). Nilsson (2008) points to the barrier of mistrust towards the marketed merits of SI products; thus investors could refrain from even looking for a suitable product. Similarly, a survey by Eurosif (2012b) amongst private and institutional investors identifies a perceived lack of SI-information and SI-products as barriers.

As for *actual behavioural control*, the last determinant of behaviour, barriers have been found in the search for a suitable product. This search takes place after investors have formed the intention to invest in SI. Literature points to barriers in the form of a lack of financially relevant SI information published by listed companies (Hummels & Timmer, 2004), an overwhelming

breadth of sustainability information offered by SI mutual funds (Nilsson et al., 2012), or investment advisors that withhold SI information from private investors in retail banking (Schrader, 2006).

Overall, a variety of potential barriers are identified in the literature that can be applied to the TPB framework. However, there are inconsistencies and knowledge gaps. In terms of inconsistencies, for example, concerns about moral obligation to bequeath to heirs, and therefore long-term performance concerns, are inconsistent with peoples' extremely high discount rates regarding the future and a strong focus on short-term returns (Shu & Bazerman, 2010). Concern for sustainable development as an important aspect is challenged by the tendency of individuals to blame others instead of taking action themselves, overly high optimism for the development of the future and human's ability to control uncontrollable events such as climate change, and mental reliance on future technology (Bazerman, Tenbrunsel, & Wade-Benzoni, 1998).

More important, however, are the following knowledge gaps. Amid the breadth and quantity of proposed barriers, it remains inconclusive what the *dominant* barriers are, that is, what aspects matter most, if *interrelations* and/or *combinations* amongst barriers or other aspects exist, and *where in the decision-making process* these barriers appear.

The disparate findings and gaps of the extant literature reiterate the need for empirical work. This study applies insights from interviews with HNWI to inform a framework that conceptualizes the decision-making process of private investors in the context of SI. This requires a more comprehensive and complete understanding of dominant barriers and the resulting SI-gap. The method applied in our empirical work is outlined in the following section.

Method

In light of the research gaps, we chose an inductive, theory-building research approach rather than a deductive, theory-testing method. Our empirical data was gathered through semi-structured face-to-face interviews with 10 HNWI. We followed an interview guide with open-ended questions to obtain the subjects' points of view in their own words (Kvale, 1996, 2007). Following an exploratory multi-case study approach, we iteratively added empirical insights and through analytic induction moved towards concrete and empirically supported propositions (Eisenhardt & Graebner, 2007; Yin, 2003). We will now outline our approach in more detail including the case selection, data collection, and analysis.

Case Selection

Access to the secretive segment of HNWI can be a challenge for scholars. HNWI and their intermediaries commonly place a high value on confidentiality, given security concerns and the curiosity of colleagues, relatives, media, authorities, and the public. This study accessed HNWI through a Swiss private bank. In order to avoid selection bias the bank chosen for the interviewee solicitation is medium-sized in terms of assets under management and not branded as more or less "sustainable" than others. The bank offers SI-products in the form of mutual funds, structured products, and as a portfolio-management approach, on which the investment advisors have been trained alongside other traditional services and products. There is no (dis-) incentive to recommend one or the other product. The bank's HNWI clients serve as our cases. The selection of cases that contribute substantially to the theory-building quality of the whole sample is essential to ensure the external validity and therefore the generalizability of findings (Yin, 2003). Accordingly, our case selection process followed the concept of theoretical sampling, where, following each interview, we reflected on worthwhile questions and interviewee profiles to investigate in order to develop theoretical ideas (Glaser & Strauss, 1967). We obtained a list of potential cases through an interview request letter that was framed as a general investigation of

interviewees' investment interests and sent by the bank to its HNWI clients in Switzerland. We then conducted the interviews and iteratively developed the characteristics of our sample, as we obtained the most valuable insights in talking to polar types that are contrarily characterized by their high or low engagement in SI, investment knowledge, and sustainability knowledge as well as older or younger age versus the average age of HNWIs, 61 years (Fidelity Investments, 2012). We stopped the data collection once additional theoretical insights gained through the interviews became small and a replication logic was secured (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2003). To ensure interviewees' privacy we refer to cases as PRIV_01 to PRIV_12. PRIV_01A to PRIV_02B were test-interviews (Round 1) with persons that were both HNWIs and private banking professionals, which served to triangulate, calibrate, and refine our understanding of the topic as well as the interview guide. We then conducted interviews with 10 HNWIs for data collection purposes, named PRIV_3 to PRIV_12 (Round 2). Table 3 provides an overview of the interviewee profiles (the additional information relates to results and is discussed later).

Data Collection

We conducted semi-structured interviews following the process proposed by Kvale (2007) that allows subjects to freely share their perception and experience on a topic. We iteratively reviewed each interview for recurring patterns before the next interview was conducted in order to interpret findings and identify emerging theoretical ideas (Yin, 2003). As a result, the interview guide was updated four times, strengthening the internal and construct validity of our empirical work (Gibbert, Ruigrok, & Wicki, 2008). Following the open questions included in the interview guide, the interviewee was first asked what general aspects he or she considers when setting up an investment portfolio, which elicited information on the individual family situation, investment knowledge, and investment time horizon. That was followed by a question on what trends or topics are considered as potential threats or opportunities, which elicited whether topics related to sustainability were part of the person's thinking generally and as an investor. If the interviewee mentioned aspects related to sustainability, interviewers would inquire on the understanding of what sustainability is, and whether the person invests accordingly. That would elicit the understanding of and engagement in SI, and would be followed by a question on the motivation to invest in SI, data sources, and, lastly, perceived barriers to invest in SI. We asked about these aspects only when the interviewee did not mention them by herself. Thus, sustainability or SI was *not* defined by the interviewers, but by the interviewee through a discussion about financial investments in general. The goal was to avoid social desirability or framing effects. Three researchers conducted the interviews. One researcher attended all the interviews, one attended the test-round, and one the data collecting interviews.

Data Analysis

Following Gibbert et al. (2008), all of the 1- to 2-hour interviews were recorded and transcribed. The data analysis had two phases. In the first phase, the two researchers who had attended all the data collecting interviews went through the interview manuscripts and independently identified quotes that outlined characteristics of each case related to the polar type characteristics, the perception of sustainability and SI, and reasons to engage in SI. The results were discussed and matched together with the third researcher who had attended the test interviews. The process revealed a high interest in SI, different motivations, and a high variety in investors' perception of SI. In the second phase of the analysis, we applied the iterative and systematic concept of analytical induction and specifically pattern matching to identify similarities and differences between cases as well as to develop concrete and empirically supported propositions (Eisenhardt, 1989;

Table 3. Interviewee Profiles and Descriptives.

| Interviewee | Sex | Age | Inv. time horizon (years or heirs, if focus) | Occupation | Investment knowledge | SI knowledge | SI practices applied | | SI interest | SI data source | SI share in portfolio |
|--|-----|-----|---|------------------|-------------------------|-----------------|----------------------|------------------|----------------|-------------------|--------------------------|
| | | | | | | | Exclusions | ESG [†] | | | |
| Round 1: Initial interview guide development | | | | | | | | | | | |
| PRIV_01A | M | 55 | 2-3 | Private Banker | > | o | n.a. | n.a. | n.a. | n.a. | n.a. |
| PRIV_01B | M | ~65 | No info | Private Banker | > | o | n.a. | n.a. | n.a. | n.a. | n.a. |
| PRIV_02A | M | 65 | 3-5 | Accountant | > | o | n.a. | n.a. | n.a. | n.a. | n.a. |
| PRIV_02B | M | ~45 | No info | Fund manager | > | o | n.a. | n.a. | n.a. | n.a. | n.a. |
| Round 2: Interview data gathering | | | | | | | | | | | |
| PRIV_03 | M | 60 | 20-30 | Lawyer | o | o | * | * | E | O | 7-8% |
| PRIV_04 | M | 72 | Heirs | Consul general | < | < | | | L | None | None |
| PRIV_05 | M | 61 | 20 | Banking exec. | > | > | * | * | E | O | Some |
| PRIV_06 | M | 83 | Heirs | Chemistry exec. | > | > | * | * | E | O | 10% |
| PRIV_07 | M | ~75 | Heirs | Energy exec. | < | o | * | * | L | None | Some |
| PRIV_08 | M | 63 | I | Consulting exec. | o | o | * | * | L | None | Low |
| PRIV_09 | M | 63 | Heirs | Banking exec. | o | o | * | * | E | A | 100% |
| PRIV_10 | F | 68 | Heirs | Ballet teacher | o | o | * | * | E | A | 100% |
| PRIV_11 | M | 87 | I | Engineer | o | o | * | * | L | A | None |
| PRIV_12 | M | 65 | 3-5 | Lawyer, investor | > | o | * | * | L | None | Low |

Note. Investment/SI knowledge: "<" = None; "o" = Some; ">" = Good level of knowledge relative to other interviewees. ^f: "ESG" = environmental, social, and governance factors considered in investment decisions. SI interest: "E" = explicit; "L" = latent interest in sustainable investing products and processes. SI data source: "A" = client advisors; "O" = other SI data source, for example, external SI product vendors, media.

Yin, 2003). The same two researchers independently went through the interview manuscripts again and highlighted aspects related to barriers in the involvement of interviewees in SI. The quotes were grouped under second- and third-order codes and potential interrelations between barriers and other aspects were indicated. The three researchers compared the results and identified central patterns. The iterative, inductive process identified the three highly prevalent and dominant barriers that are outlined in the results section below.

Results

The results section presents interviewees' interest in SI, their investment motives and topics that they relate to SI. Furthermore, we present insights related to the determinants of behaviour, including propositions for three dominant barriers and their integration into the proposed framework.

HNWIs and SI: Interests, Motivations, and Topics

We found that all the interviewees were interested in SI. With the exception of one interviewee who delegates all investment decisions to his advisor, each person considered sustainability aspects by excluding certain industries and considering environmental, social, or governance aspects in their investment decisions. That includes interviewees that openly disdain SI, as the following persons did:

PRIV_08: Sustainable investing is nothing but 'hot air';

Or

PRIV_12: Sustainable investing is a fashion-word, it is useless and a bad investment strategy. I have nothing against sustainable living and such, but as an investment concept it's a sales argument.

Despite their severe commentary, both are engaged in SI. For example, the latter interviewee consciously excludes the tobacco industry from his direct investments and invests in renewable energy mutual funds. However, he was not aware of the fact that SI includes what he routinely engages in through his own investment approach. Similarly, one interviewee (PRIV_07) had never heard of SI, yet invested in renewable energy funds. Another person (PRIV_04) attentively reads corporate water reports, but does not know about the possibility to invest in funds or mandates that consider water aspects. Thus, some individuals may invest in SI, or are interested in SI, but don't know what SI is or what it entails. They can be categorized as "latently" interested in SI, versus those investors who know about SI and are "explicitly" interested. The categorization of interviewees in these terms is provided in Table 3, together with their level of investment in SI, and an indication if the person excludes investments due to ethical reasons and if environmental, social, or governance aspects are considered in investments. Notably, almost all interviewees consider SI aspects, and even "latently" interested persons invest up to 10% of their portfolio along SI considerations.

Furthermore, the interviewees mentioned their motives to engage in SI. A mix of ethical and financial motives was brought forth by interviewees, for example:

PRIV_03: I don't have British Tobacco in my portfolio anymore. Q: For ethical reasons?;

PRIV_03: No, due to smoking bans. [. . .] I consider sustainable investing for diversification, profits and sympathy for a careful use of resources.

Ethical arguments were at the centre for two interviewees who were explicitly interested in SI and who invest 100% of their assets with financial objectives along SI criteria:

Q: What percentage of your portfolio is invested along sustainability criteria [and why]?

PRIV_09: Everything, except cash. [. . .] We want to invest with a good conscience;

Or

PRIV_10: I simply want to stand behind where I make money and where I don't.

Overall, all interviewees mentioned mixed motives, yet ethics were more prominent than financial motives.

The sustainability topics that our interviewees were interested in varied strongly amongst individuals. On the one hand, an interviewed consul general with experience on water projects in Africa (PRIV_04), for example, placed a focus on natural resources and specifically water topics, yet considers wind and solar energy as something "that doesn't lead to much," or "a disgrace for landscapes." An energy executive (PRIV_07), on the other hand, put a strong focus on renewable energy, which he predicts to "have a great future." Overall, the most prominent topics were natural resource scarcity, followed by the rise of renewable energy, corruption, and a recession of ethics in business, the rise of energy efficiency technology, and climate change. Interviewees associated SI with thematic sustainability topics and specific industries, rather than, for example, microfinance or the consideration of environmental, social or governance aspects in security selection or portfolio construction. Thus, they focus on a small segment out of the much broader scope of SI. The specific topics that interviewees relate to SI varied widely and could often be traced to their professional background.

In sum, we find support for the existence of the SI gap: While many interviewees had little or no understanding of SI, we observe a high interest in considering sustainability aspects in their investment decisions. Even those interviewees that openly disdained SI do in fact invest in SI products and consider to some degree ethical or sustainability aspects in their investment decisions. We could thus infer that a large share of private investors is generally interested in SI; however, their actual engagement can still be fostered. Furthermore, different individuals have different motivations to invest in SI, yet purely financial concerns appear rare or unlikely. That supports the case for SI given its financial and non-financial qualities. As such, a substantial potential may exist for more SI engagement depending on better information on SI and its versatility. Lastly, people relate different topics to SI. The high heterogeneity in individuals' perceptions of SI and their motivations stresses the need to conceptually understand the decision-making process in SI. Adding to these general insights, we now outline findings related to the determinants of behaviour to develop a more fine-grained decision-making framework.

HNWIs' Engagement in SI: A Decision-Making Framework

Based on the SI-gap and our interviewees' high interest in SI, we were particularly interested in understanding the decision-making process of private investors and the reasons why they refrain from being more engaged in SI. Thus, we outline our interview results along the *determinants of behaviour* of the proposed TPB framework adapted to SI as displayed in Figure 1. We focus on dominant barriers and propose their consideration in the framework displayed in Figure 2.

Attitude Towards the Behaviour. As expected from the findings of East (1993), the interviewees frequently voiced opinions about the volatility of SI. Typical interviewee statements highlighted SI aspects as worthwhile, yet the financial performance of SI as overly volatile, as illustrated by the following statement:

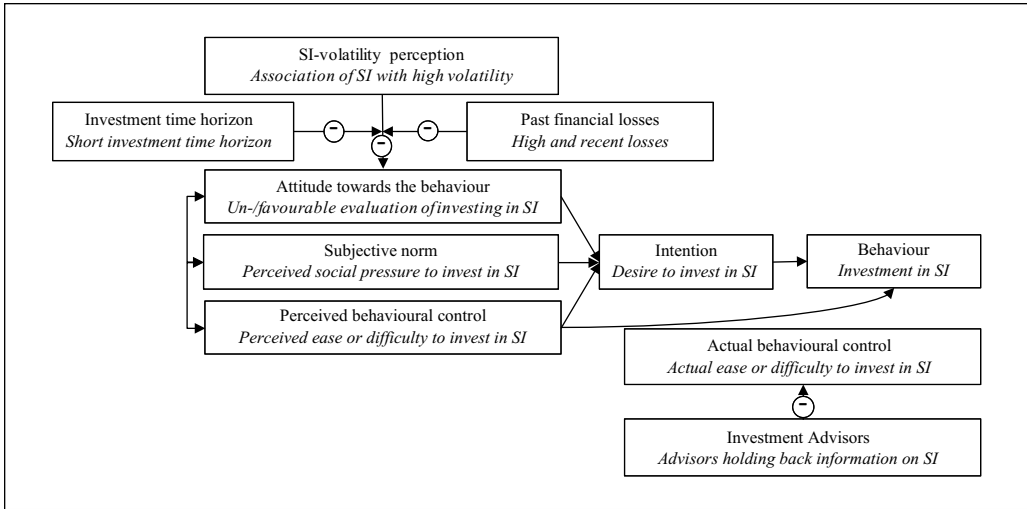


Figure 2. Theory of planned behaviour framework adapted to SI and extended based on interview results.

Note. The signs illustrate the proposed directionality of the relation, that is, (-) indicates a negative effect on the determinant.

PRIV_10: Sustainable firms will be the better investment in the long run. But most of them do not exist that long and are risky in the short term.

Most interviewees related SI to specific industries that are rather volatile, specifically to investments in small firms that are active in the renewable energy or water sector. A substantial impact of the perception of SI as overly volatile was identified when it appeared either in combination with individuals' investment time horizon or with significant past financial losses, as detailed below.

Research in the field of psychology emphasizes that the future time orientation of individuals affects their pro-environmental behaviour (Milfont & Gouveia, 2006; Rabinovich, Morton, & Postmes, 2010). Similarly, organizational research has found that the compression of time—for example, by discounting—can lead to an imbalance between business practices and the relatively slower underlying cycles of the natural environment (Bansal & Knox-Hayes, 2013). These insights about individuals' time orientation help also understanding their financial decision making with regard to SI. The individual's investment time horizon ranged in our sample from 1 year to the consideration of following generations. We found clear evidence that the investment time horizon matters when individuals perceive SI to be volatile. When individuals have a long investment time horizon, their perception of SI to be volatile does not matter:

PRIV_06: The investments shall serve my children. [...] Of course I've invested. Long term, as that [volatile water-] fund will do well in 20, 30 or 50 years. [...] It's an interesting topic for people that invest long-term, like me.

Or

PRIV_07: I invest [in as volatile perceived renewable energy funds] and my heirs reap the benefits.

In contrast, we identified a dominant cognitive barrier when individuals have a short investment time horizon and consider SI to be rather volatile. This can be illustrated by the following exemplary quotes:

PRIV_12: In my age now, I will be more critical [towards as volatile perceived SI];

Or

PRIV_11: I just see the stock-price drawdowns. To invest in solar would respond to my heart. [. . .]
[But] when I think about my [investment time horizon], it is rather short, based on my age.

This combination of short-termism and high-perceived volatility of SI has a negative effect on attitude towards the behaviour (Figure 2). We summarize this in the following proposition:

Proposition 1: Private investors that associate SI with above-average volatility and have a short investment time horizon are less likely to invest in SI.

Further, the interviews showed that general and rather recent financial losses, such as from the “global financial crisis” beginning in 2008, combined with perceived high volatility matter as well. For example, one interviewee perceives SI as more volatile than average but aims to invest 100% of her wealth in SI. Following general financial losses, she shifted some assets into non-SI investments:

Q: Has your investment behaviour changed due to the losses? PRIV_10: Yes, definitely. [. . .] we have invested a bit in some big [non-SI] firms as well, something stable.

Similar reasoning for a low SI engagement was provided in the following statement by an interviewee who perceives SI as overly volatile:

PRIV_12: [. . .] and it all went down a lot in 2008. I don’t want to experience that again.

Contrary to that, interviewees who experienced losses yet did not regard SI as volatile showed an unchanged interest in SI (e.g., PRIV_06, PRIV_09). The recurrence of the pattern throughout the interviews and the direct impact on the individual engagement in SI points to a cognitive dominant barrier. Conceptualized in the context of TPB, the perception of high volatility of SI in combination with financial losses has a negative effect on attitude towards the behaviour. The barrier is illustrated in Figure 2 and leads to the second proposition:

Proposition 2: Private investors that associate SI with above-average volatility and have experienced general recent financial losses are less likely to invest in SI.

Subjective Norm. Our interviewees outlined that they discuss their investment decisions in private, with their wife or husband, and seldom with other family members or friends. Most active was an interviewee who stated the following:

PRIV_08: I call two or three experts before I take a new investment decision.

More common were responses that indicate a very small circle of people with whom investments are discussed:

Q: Do you discuss your investments with someone else than your advisor?

PRIV_05: Well, with acquaintances, I have two or three, but that comes and goes.

Others only mention the agreement of their partner:

PRIV_09: Every firm, in which we invest, must get the ok from my wife.

Some interviewees aim not to be involved in their investments and delegate as much as possible to their advisors, for example:

PRIV_04: We don't really care for it. The bank knows what we are looking for, but we don't get involved in the daily business. [...] I trust the bank;

Or

PRIV_07: It's simply [name of client advisor] who I discuss with, and he recommends me this and that. [...] And then I do what is recommended. I don't know better.

Overall, we find that interviewees discuss their investments with a rather small group of people, and thus are rarely, if ever, exposed to peer pressure. Therefore, subjective norm might be less relevant in the context of private investors' investment decisions than what could be expected from literature (e.g., Rosen et al., 1991; Statman, 2004). Since we cannot propose a specific dominant barrier in the context of subjective norm, we do not derive any corresponding implication for the decision-making framework.

Perceived Behavioural Control. As for *perceived* limitations to the investment in SI, some clients did mention a lack of viable SI products, as illustrated in the following examples:

PRIV_03: I just don't see the right [renewable energy] products;

Or

Q: Are there sectors where you would like to invest, but have not found SI products? PRIV_06: The things that I use every day. Like paper. I have worked with that as a chemist. Or the food industry. That will change a lot.

Or

PRIV_07: There are few [SI-] products. I mean climate change. What can you do there?

We infer that private investors appear to perceive a limited availability of products that relate to some specific topics of their interest. However, most interviewees were actually invested in SI products that—more or less—pertain to the topics of their main interests. Thus, we did not identify a dominant barrier that pertains to perceived behavioural control.

Actual Behavioural Control. Prior research argued that *actual behavioural control* should not play a prominent role in investment decision making (East, 1993). However, we found that the occurrence of actual limitations that investors could encounter following the formation of an intention to invest in SI could be important towards their actual *behaviour* of investing in SI. For example, the following interviewees explicitly sought to invest in SI yet received insufficient information from their advisors, information that was available to the advisors:

PRIV_11: If I knew a firm is involved in wrongdoings, such as disposing of waste into the sea or Africa, then I would probably divest from that firm. Q: Do you have that information? PRIV_11: I do not have that information.

Or

Q.: Has your advisor brought SI forward to you? PRIV_03: No. He thinks I have enough sources [...] and that I get these monthly reports from [name of bank].

Others received SI information, yet still lack SI advice that they can implement, as illustrated here:

Q: After you voiced your interest, have you received information on SI products from your advisor?

PRIV_11: I received some information on SI. But I don't know how to act on it now.

In sum, we found a dominant barrier in advisors who appear to withhold SI information from their clients. This barrier was found despite the fact that all of the HNWIs' advisors were trained on SI and were encouraged to advise their clients accordingly. Reasons for the hesitant behaviour could include advisors' concern or fear of the high heterogeneity in clients' view of SI. In the decision-making framework (Figure 2), we conceptualize this barrier accordingly: advisors reduce actual behaviour control, that is, their clients' ability to act on their intention to invest in SI. Accordingly, this is reflected by the last proposition:

Proposition 3: While private investors may have the intention to invest in SI, the ability to invest in SI is restricted by investment advisors that withhold relevant SI information.

Discussion and Conclusion

Potential Explanations for the SI Gap

Our results offer new explanations for the observed SI gap. While we find a high interest of HNWIs in SI, our results highlight important barriers in the decision-making process that keep private investors from engaging in SI. Barrier one pertains to a combination of the perception of SI as volatile together with a short investment time horizon; barrier two describes the perception of high volatility of SI together with financial losses. Both combinations appear to have a direct negative effect on the person's *attitude* towards investing in SI, which predicts the formation of the *intention* to invest in SI. These barriers could be of significant relevance for explaining the SI gap: First, the cognitive barrier stemming from volatility and short-termism could inherently affect many older people—such as, for example, many representatives of the highly economically relevant segment of HNWIs. With an average age of over 60 years this segment is relatively old (Fidelity Investments, 2012) and, thus, may have a tendency towards a shorter investment time horizon. Second, in the aftermath of the financial crisis, it is very likely that many private investors experienced financial losses. Thus, the cognitive barrier related to volatility and recent losses could apply to many private investors. Finally, the third barrier—that advisors withhold SI information—comes into effect once a private investor has formed the intention to invest in SI. Sufficient information on how to act on that intention is a prerequisite for the actual behaviour of investing in SI. Thus, SI information being withheld is a direct and—given the far-reaching reliance on investment advisors—a potentially rather powerful contributor to the SI gap.

Contributions to the Organization and Environment Literature

To our knowledge, this is the first assessment of *dominant* barriers in the decision-making process towards SI engagement as well as of *combinations* of aspects that form such dominant barriers. This study contributes conceptually through a framework of the decision-making process of private investors in SI, providing detailed empirical insights on the determinants of behaviour as proposed by the theory of planned behaviour.

As one key result, we find that while most HNWIs consider SI as rather volatile, they differ in the length of their investment time horizon; those HNWIs with a longer investment time horizon are more likely to engage in SI. This insight adds to the perspective that the consideration of time in management research is important for understanding the conditions for sustainable

development (Gladwin, Kennelly, & Krause, 1995). Bansal and Knox-Hayes (2013) argue that time is being compressed by organizations; this becomes obvious through financial instruments such as futures and derivatives. The resulting short-termism stands in conflict with the relatively slower underlying cycles of the natural environment. We observed this conflict in our interviews. Some interviewees were generally interested in considering ecological aspects within their investment decisions, but their investment time horizon dominated this initial intention: investments that are aligned with natural environment considerations took too long for them to materialize. Others accepted a long investment time horizon and engaged in SI.

Beyond HNWI, the effect of time on the engagement in SI has been observed for other types of investors as well. One example is venture capital (VC) firms. VCs typically raise large sums of capital and invest in promising start-ups that they nurture until they can be sold for a large profit. Similarly to our observation that those HNWI with a long investment time horizon were more likely to engage in SI, Marcus, Malen, and Ellis (2013) indicate that VC firms that engage in investments related to sustainability are “stretching out their timetables” (p. 31). While we can identify this similarity between long-term oriented HNWI and VCs, they differ in one specific aspect that also matters in SI: VCs typically are not willing to sacrifice financial returns for ethical or other non-financial benefits; for HNWI this depends on the individual preferences. In sum, our findings add a piece to the puzzle of barriers and motivations for SI: for the economically highly relevant investor type of wealthy private investors there is no unequivocal picture; there are many individual aspects and differing perceptions that determine their SI engagement. This, in turn, implies that there is a huge potential for unleashing the powerful few and moving towards closing the SI gap.

Our findings on the important role of advisors in individual investors' engagement in SI add detailed empirical evidence to prior suggestions on that topic in the SI literature (Hummels & Timmer, 2004; Nilsson, 2010). From the work of Schrader (2006), we know that advisors that withhold SI information are potential barriers for less wealthy retail investors. Schrader points to the logic that advisors of wealthy clients might have a better knowledge of SI and inform their clients accordingly, yet we show that even some HNWI advisors who have been trained on SI withhold that information. Thus, we add to literature with the notion that hesitant advisors might be an important SI barrier for private investors overall, both retail and HNWI.

Limitations and Future Research

In terms of the limitations of this exploratory study, the geographical focus and limited size of our sample have to be considered. We encourage future research to extend our results and to test and specify the impact and relevance of our propositions and the TPB framework adapted to SI. Comparisons of different types of investors or markets may provide valuable additional insights. In terms of generalizability, we suggest that studying HNWI, on the one hand, imposes limitations due to their privileged access to investment solutions and advice; on the other hand, the lack of these privileges by retail investors means that some of the barriers that HNWI face might be encountered by ordinary retail investors as well, if not even to a larger extent.

Our findings call for further research that links SI with behavioural economics. Combining individual's time orientation with volatility perception and financial losses offers a bridge from SI engagement to prospect theory (Kahneman & Tversky, 1979). For example, the myopic loss aversion concept (Benartzi & Thaler, 1995) explains why people invest more in securities that they perceive as volatile if they reduce the frequency with which they evaluate the investment's financial performance, or consider a longer investment time horizon. Applied in the context of SI, the concept could show that investors who consider SI as overly volatile might have a more positive *attitude* to SI not only if they consider a longer investment time horizon, as suggested in our study, but also if they reduce the frequency of evaluating the financial performance of their

investments. Future research might find that the frequency with which performance is reported is fixed by bank operations or regulation, maybe to the detriment of privates' engagement in SI. Likewise, the house money effect concept (Thaler & Johnson, 1990) shows that investors are more risk-seeking following a gain compared with a situation after a financial loss. Applied to SI, the concept could provide a theoretical foundation to assess the effect of volatility not only with losses, as outlined in our study, but also with financial gains.

Furthermore, our observation that investors state that they have the general intention to invest in SI, but they did not invest in SI due to short-term financial concerns, points to the want/should distinction of Bazerman et al. (1998). The framework pertains to similar conflicts between what people *want to do* versus what they *think they should do*. An assessment of the want/should distinction in the context of SI and the TPB framework might, for example, identify a moderating effect of the want/should distinction between *intention* and *behaviour*. Lastly, advisors' neglect for SI is surprising since the general benefit of their work for clients is increasingly challenged (Hackethal, Haliassos, & Jappelli, 2012). Here, providing detailed SI related information might be an opportunity to add new value to their advisory services. For scholars it would be of interest to investigate why advisors do not provide this information, that is, what are the perceptions, frames, barriers, and motivational aspects that determine the advisors' engagement in discussing SI with private investors.

Implications for Practitioners

Our results reveal insights about investors' behaviour that are vital for practitioners when promoting SI funds and investment products (Dunfee, 2003). Our results regarding HNWI's high interest in SI point to a substantial market opportunity for SI. However, due to differing investor preferences, a "one size fits all" strategy in product development and placement is not advisable. Private investors have different motivations to invest in SI. These motivations range from considering investment approaches that only exclude certain industries to holistic approaches that encompass a full range of different environmental, social, and governance criteria. This is an important finding for practitioners who seek to balance the way products are tailored to the interest of clients and attract substantial amounts of assets. Similarly, practitioners might consider clients' investment time horizon or history of financial losses for the strategic positioning of SI offerings. For example, clients that experienced losses may be interested in more conservative SI approaches that seek to reduce risks by considering environmental, social, and governance factors. More volatile renewable energy investments could attract investors with a long investment time horizon. However, one requirement is that they have not experienced recent financial losses.

Finally, practitioners might consider our finding on advisors as a critical roadblock in the development and distribution of SI offerings. It appears important to train and motivate advisors to inform clients about SI and to be prepared to adequately respond to their clients' heterogeneous understanding of SI. Overall, this study shows that the general availability of information about SI, the individual perception of SI, and specific characteristics of investor types are of importance for SI engagement. These aspects determine the decision-making process in SI and go beyond the usual "does it pay to be green" debate that so far dominated the discussion in academic and practitioner literature.

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References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I. (2014). The theory of planned behaviour is alive and well, and not ready to retire: A commentary on Sniehotta, Presseau, and Araújo-Soares. *Health Psychology Review*. Advance online publication. doi:10.1080/17437199.2014.883474
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22, 453-474.
- Albertini, E. (2013). Does environmental management improve financial performance? A meta-analytical review. *Organization & Environment*, 26, 431-457.
- Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *Economic Journal*, 100, 464-477.
- Bansal, P., & Knox-Hayes, J. (2013). The time and space of materiality in organizations and the natural environment. *Organization & Environment*, 26, 61-82.
- Bazerman, M., Tenbrunsel, A., & Wade-Benzoni, K. (1998). Negotiating with yourself and losing: Making decisions with competing internal preferences. *Academy of Management Review*, 23, 225-241.
- Beal, D., & Goyen, M. (1998). "Putting your money where your mouth is": A profile of ethical investors. *Financial Services Review*, 7, 129-143.
- Benartzi, S., & Thaler, R. H. (1995). Myopic loss aversion and the equity premium puzzle. *Quarterly Journal of Economics*, 110, 73-92.
- Berry, T. C., & Junkus, J. C. (2013). Socially responsible investing: An investor perspective. *Journal of Business Ethics*, 112, 707-720.
- Bollen, N. (2007). Mutual fund attributes and investor behavior. *Journal of Financial and Quantitative Analysis*, 42, 683-708.
- Çelik, S., & Isaksson, M. (2014). Institutional investors and ownership engagement. *OECD Journal: Financial Market Trends*, 2013(2), 93-114.
- Chang, M. (1998). Predicting unethical behavior: A comparison of the theory of reasoned action and the theory of planned behavior. *Journal of Business Ethics*, 17, 1825-1834.
- Chatterji, A. K., Levine, D. I., & Toffel, M. W. (2009). How well do social ratings actually measure corporate social responsibility? *Journal of Economics & Management Strategy*, 18, 125-169.
- Cheah, E.-T., Jamali, D., Johnson, J. E. V., & Sung, M.-C. (2011). Drivers of corporate social responsibility attitudes: The demography of socially responsible investors. *British Journal of Management*, 22, 305-323.
- Cordano, M., & Frieze, I. (2000). Pollution reduction preferences of US environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management Journal*, 43, 627-641.
- Crane, A. (2000). Facing the backlash: Green marketing and strategic reorientation in the 1990s. *Journal of Strategic Marketing*, 8, 277-296.
- Dunfee, T. W. (2003). Social investing: Mainstream or backwater? *Journal of Business Ethics*, 43, 247-252.
- East, R. (1993). Investment decisions and the theory of planned behaviour. *Journal of Economic Psychology*, 14, 337-375.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14, 532-550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50, 25-32.
- Eurosif. (2012a). *European SRI study 2012*. Brussels, Belgium: Author.
- Eurosif. (2012b). *HNWIs & sustainable investment 2012*. Brussels, Belgium: Author.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.
- Fidelity Investments. (2012). *2012 Fidelity Millionaire Outlook*. Boston, MA: Author.
- Gallup. (2009). *Europeans' attitudes towards the issue of sustainable consumption and production* (Flash EB Series #256). Washington, DC: European Commission—Flash Eurobarometer.

- Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal*, 1474, 1465-1474.
- Glac, K. (2008). Understanding socially responsible investing: The effect of decision frames and trade-off options. *Journal of Business Ethics*, 87(Suppl. 1), 41-55.
- Gladwin, T., Kennelly, J., & Krause, T. (1995). Shifting paradigms for sustainable development: Implications for management theory and research. *Academy of Management Review*, 20, 874-907.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Gond, J.-P., Louche, C., Slager, R., Juravle, C., & Yamahaki, C. (2011, June). The institutional and social construction of responsible investment. In *Proceedings of the 2011 IABS conference* (pp. 524-531), Bath, England.
- Global Sustainable Investment Alliance. (2013). *Global Sustainable Investment Review 2012*. Brussels, Belgium: Author.
- Hackethal, A., Haliassos, M., & Jappelli, T. (2012). Financial advisors: A case of babysitters? *Journal of Banking & Finance*, 36, 509-524.
- Henry, A. D., & Dietz, T. (2012). Understanding environmental cognition. *Organization & Environment*, 25, 238-258.
- Hummels, H., & Timmer, D. (2004). Investors in need of social, ethical, and environmental information. *Journal of Business Ethics*, 52, 73-84.
- Juravle, C., & Lewis, A. (2008). Identifying impediments to SRI in Europe: A review of the practitioner and academic literature. *Business Ethics: A European Review*, 17, 285-310.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-292.
- Kaiser, F., Wölfling, S., & Fuhrer, U. (1999). Environmental attitude and ecological behaviour. *Journal of Environmental Psychology*, 19, 1-19.
- Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: A cross-market examination. *Journal of Consumer Marketing*, 16, 441-460.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.
- Kvale, S. (2007). *Doing interviews*. London, England: Sage.
- Lewis, A. (2001). A focus group study of the motivation to invest: "Ethical/green" and "ordinary" investors compared. *Journal of Socio-Economics*, 30, 331-341.
- Lewis, A. (2002). *Morals, markets and money: Ethical, green and socially responsible investing*. London, England: Prentice Hall/Financial Times.
- Lulfs, R., & Hahn, R. (2014). Sustainable behavior in the business sphere: A comprehensive overview of the explanatory power of psychological models. *Organization & Environment*, 27, 43-64.
- Lynne, G., & Casey, C. F. (1995). Conservation technology adoption decisions and the theory of planned behavior. *Journal of Economic Psychology*, 16, 581-598.
- Marcus, A., Malen, J., & Ellis, S. (2013). The promise and pitfalls of venture capital as an asset class for clean energy investment: Research questions for organization and natural environment scholars. *Organization & Environment*, 26, 31-60.
- Maula, M., Autio, E., & Arenius, P. (2005). What drives micro-angel investments? *Small Business Economics*, 25, 459-475.
- Milfont, T. L., & Gouveia, V. V. (2006). Time perspective and values: An exploratory study of their relations to environmental attitudes. *Journal of Environmental Psychology*, 26, 72-82.
- Nilsson, J., Siegl, S., & Korling, F. (2012, January). *The complex decision making environment of socially responsible mutual fund investors: Introducing a disclosure framework focusing on information quality* (SIRP Working Paper 12-01; pp. 1-30). Retrieved from <http://www.sirp.se/web/page.aspx?refid=41>
- 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, 307-325.
- Nilsson, J. (2009). Segmenting socially responsible mutual fund investors: The influence of financial return and social responsibility. *International Journal of Bank Marketing*, 27(1), 5-31.
- Nilsson, J. (2010). *Consumer decision making in a complex environment: Examining the decision making process of socially responsible mutual fund investors*. Umeå, Sweden: Umeå University.

- Nilsson, J., Nordvall, A.-C., & Isberg, S. (2010). The information search process of socially responsible investors. *Journal of Financial Services Marketing*, 15(1), 5-18.
- Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24, 403-441.
- Rabinovich, A., Morton, T., & Postmes, T. (2010). Time perspective and attitude-behaviour consistency in future-oriented behaviours. *British Journal of Social Psychology*, 49(Pt. 1), 69-89.
- Ramayah, T., Lee, J. W. C., & Lim, S. (2012). Sustaining the environment through recycling: An empirical study. *Journal of Environmental Management*, 102, 141-147.
- Renneboog, L., Ter Horst, J., & Zhang, C. (2008). The price of ethics and stakeholder governance: The performance of socially responsible mutual funds. *Journal of Corporate Finance*, 14, 302-322.
- Rosen, B., Sandler, D., & Shani, D. (1991). Social issues and socially responsible investment behavior: A preliminary empirical investigation. *Journal of Consumer Affairs*, 25, 221-234.
- Sandberg, J., Juravle, C., Hedesström, T. M., & Hamilton, I. (2008). The heterogeneity of socially responsible investment. *Journal of Business Ethics*, 87, 519-533.
- Sandberg, J., & Nilsson, J. (2011, September). *Conflicting intuitions about ethical investment: A survey among individual investors*. Paper presented at the PRI-Mistra Academic Conference, Sigtuna, Sweden.
- Schrader, U. (2006). Ignorant advice—Customer advisory service for ethical investment funds. *Business Strategy and the Environment*, 15, 200-214.
- Shorrocks, A., Davies, J., & Lluberas, R. (2013). *Credit Suisse global wealth databook 2013*. Zurich, Switzerland: Credit Suisse.
- Shu, L., & Bazerman, M. (2010, December). Cognitive barriers to environmental action: Problems and solutions (Working Paper No. 11-046). Retrieved from <http://hbswk.hbs.edu/item/6576.html>
- Sievänen, R., Rita, H., & Scholtens, B. (2013). The drivers of responsible investment: The case of European pension funds. *Journal of Business Ethics*, 117, 137-151.
- Statman, M. (2004). What do investors want? *Journal of Portfolio Management*, 30(5), 153-161.
- Surroca, J., Tribó, J., & Waddock, S. (2010). Corporate responsibility and financial performance: The role of intangible resources. *Strategic Management Journal*, 31, 463-490.
- Thaler, R. H., & Johnson, E. J. (1990). Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management Science*, 36, 643-660.
- United Nations Principles of Responsible Investing. (2013). *PRI Annual Report 2013*. London, England: Author.
- Webley, P., Lewis, A., & Mackenzie, C. (2001). Commitment among ethical investors: An experimental approach. *Journal of Economic Psychology*, 22(1), 27-42.
- Wins, A., & Zwergel, B. (2014, January). *Comparing those who do, might and will not invest in sustainable funds—A survey among German retail fund investors*. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2443721
- Yin, R. (2003). *Applications of case study research* (3rd ed.). Thousand Oaks, CA: Sage.

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