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Segmenting socially responsible mutual fund investors: The influence of financial return and social responsibility

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Abstract

Purpose – The purpose of this paper is to address reasons for consumer investment in socially responsible investment (SRI) profiled mutual funds. Specifically, the paper deals with the relative influence of financial return and social responsibility on the decision to invest in SRI profiled mutual funds.

Design/methodology/approach – A cluster analytic approach was used where 563 SR-investors were classified into different segments based on their perception of importance of financial return and social responsibility. Furthermore, discriminant analysis and chi^2 tests were used to profile the segments.

Findings – Three segments of SR-investors were formed. The "primarily concerned about profit" SR-investors value financial return over social responsibility. The "primarily concerned about social responsibility" value social responsibility over financial return. The "socially responsible and return driven" SR-investors value both return and social responsibility when deciding to invest in SRI. The segments displayed distinct differences with regard to various profiling variables.

Research limitations/implications – As respondents were generated from one SRI provider, it is possible that the respondents are not fully representative of all SR-investors.

Practical implications – Since there are segments of SR-investors that invest in SRI because of different reasons, there is an opportunity for SRI providers to target and adapt communication to certain segments.

Originality/value – For both academia and the SRI industry this study provides useful knowledge on how private SR-investors handle the issue of financial return and social responsibility when investing in SRI. This understanding of the differing motivations of the SR-investor also holds practical importance for developing appropriate marketing strategies within the SRI industry.

Keywords Ethical investment, Unit trusts, Investors, Market segmentation

Paper type Research paper

Introduction

One of the major trends within the retail investment industry in the last couple of decades has been the introduction and growth of socially responsible investment (SRI) mutual funds. SRI profiled mutual funds are funds that actively incorporate social, environmental, or ethical (SEE) consideration in the investment decisions (Social

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Investment Forum, 2005; Sparkes, 2002). Thus, through SRI mutual funds, it is possible for private investors to incorporate SEE consideration in their personal investment choices. This opportunity is increasingly embraced by private investors as the market for SRI profiled mutual funds has grown tremendously in the last decades. The organization Social Investment Forum (2007) reports that nearly $1 out of every $9 (in total, i.e. including institutional investment) under professional management in America is involved in SRI. As for socially screened funds, the same source reports that the number of American funds using social screens is up from 55 in 1995 to 260 in 2007, representing a total of $202 billion in assets (Social Investment Forum, 2007). With this growth, it has been argued that "the status of SRI has shifted from being a novelty financial product to become a major force in international equities markets" (Waring and Lewer, 2004, p. 101).

One of the key characteristics of SRI is the combination of financial performance and consideration for SEE issues (Michelson *et al.*, 2004; Social Investment Forum, 2005). The consideration of both financial return and social responsibility represent a duality of purpose in the very core of the SRI service. This is displayed by authors such as Sparkes (2002, p. 26-7) that define SRI as "the construction of equity portfolios whose investment objectives combine social, ecological, and financial goals". Knoll (2002) also highlights the duality in the nature of SRI as he uses two criteria of what SRI is not. First, SRI is investment not charity. Investment implies a future benefit for something you are giving up today. Thus, SR-investors seek a profit and do not wish to give their money away. Second, the investment decision is not made only considering financial criteria. Instead, the financial criteria are combined with social, environmental, and ethical criteria. Thus, as highlighted by these definitions, SRI could be said to consist of two distinct parts; to generate a profit (financial return) and to consider SEE issues while doing so (social responsibility).

As there are two distinct parts of SRI it is reasonable to assume that investor motivation for investing in SRI differ depending on how the individual investor relates to the financial and SEE elements of the service. The investor, whose primary motivation is in the SEE part of the purpose, may invest in SRI profiled mutual funds without as much consideration of financial results. Investors are not necessarily only wealth maximizers (e.g. Hallerbach *et al.*, 2004; Rivoli, 1995). Therefore, some investors may care more for social performance than financial performance and may even, to some extent, be willing to give up some financial return in return for a socially responsible strategy in the mutual fund (see for example results in Lewis and Mackenzie, 2000a). The investors motivated by return, on the other hand, may invest in SRI just because of expected financial performance. That is, it is quite possible that "the better performing ethical funds attract not just ethical investors but more general or conventional investors as well" (Michelson *et al.*, 2004, p. 2). As many SRI funds perform well (e.g. Hale, 2002; Kiernan, 2002), some investors may believe that investing in socially responsible funds could generate good returns over time (e.g. Dunfee, 2003).

Thus, different investors are likely to be motivated to invest in SRI by different aspects of the SRI offering. However, with the exception of a few studies (e.g. Beal and Goyen, 1998), differences in investor motivation is largely neglected in the literature on consumer SR investment. Instead, previous research has to a large extent treated all SR-investors as a homogeneous group. Often, the socially responsible investor group is assumed to be "truly" socially responsible, thereby neglecting the possible financial motivation for investing in SRI. However, when treating all socially responsible investors as one group, it becomes difficult to draw conclusions about the behavior, since the reason that the behavior is performed is not known.

This article is an attempt to address this gap in the literature by focusing on *why* private investors choose SRI profiled mutual funds. This is done by addressing the perceived importance of the two major parts of SRI (financial performance and SEE performance) to the private SR-investor. By addressing these attitudinal characteristics of the individual SR-investor it is hoped that this study will provide a better understanding of the underlying reasons for private investment in SRI profiled mutual funds.

The objectives of the study

Based on the discussion above, there is a need to explore the growing segment of socially responsible investors with regard to their individual motivation for investing in SRI profiled mutual funds. To generate clarity on this issue, the overall aim of this study is to segment and profile investors of SRI profiled mutual funds based on what the individual SR-investors perceive to be important in the investment decision. Thus, instead of approaching socially responsible investors as homogeneous based on behavior (that is the case in much of the literature to date), this study is open to the fact that they may be heterogeneous based on preferences underlying the behavior.

In accomplishing this overall aim, the study has two primary objectives. First, this study aims to segment SR-investors using clustering variables that incorporate the perceived importance of both financial and SEE factors to the SR-investor. That is, in order to address the gap relating to why investors choose SRI, the segmentation analysis will focus on the relationship between financial return and social responsibility as perceived by the individual SR-investor. In doing this, it is hoped that this study will contribute to the marketing based literature on segmentation of consumers of financial services as well as the literature on private investment behavior with regard to SRI. Second, in order to better understand the individual investor characteristics associated with the different reasons for investing in SRI, this study aims to develop profiles of each segment of consumers with regard to different socio-demographic-, attitudinal-, and behavioral profiling variables.

The remainder of the paper is structured as follows. First, literature relevant to the segmentation of socially responsible investors is reviewed. This is followed by the presentation of the methodology and data used in the study. Finally, the results of the study are presented and conclusions are drawn.

Literature review

In order to focus on the two objectives outlined above, the review of the literature was performed in two steps. First, in order to address the clustering variables relating to the relationship between financial return and social responsibility, mentioned in the first objective, the literature on the private SR-investor was reviewed. Second, to address the second objective of the study (to profile possible segments), both the pro-social consumer behavior literature and the private investment behavior literature were reviewed in order to find relevant profiling variables. This review of the literatures are presented below starting with research focusing on private investment in SRI with a special focus on the importance of financial and SEE parts of the SRI offering.

Private investment in SRI profiled mutual funds

The first step of the literature review focused on previous research with regard to private investment in SRI. Two major conclusions from the review were that:

(1) the literature on private investment in SRI is fairly limited; and

(2) the research that has been conducted deals with a broad spectrum of issues.

The latter becomes apparent looking at the summary of selected previous research in Table I. As displayed in the table several issues, such as who invests in SRI (e.g. Lewis and Mackenzie, 2000a; McLachlan and Gardner, 2004; Rosen *et al.*, 1991), investor support for activism (Lewis and Mackenzie, 2000b), motives for investing in SRI (e.g. Beal and Goyen, 1998), and willingness to invest in SRI (Getzner and Grabner-Kräuter, 2004) have all been addressed in the literature. However, from the review it also becomes evident that most of the reviewed studies, in one way or another, also touch upon the importance of financial return or social responsibility to private investors. These two issues are further elaborated upon below.

The importance of financial return when investing in SRI profiled mutual funds. With regard to the financial performance of SRI profiled mutual funds, there is a large base of literature that examines the objective performance of SRI compared to "regular" investments. Some of these studies indicate that SRI may perform better than non-SRI portfolios. For example, Derwall *et al.* (2005) find that a portfolio with companies that perform well on environmental issues also provided better financial returns than a portfolio with companies with a worse environmental record. In total, however, studies that have reached this conclusion are few. Instead, the most common result when comparing SRI and "regular" investments is that there is no significant difference in financial performance (e.g. Statman, 2000; Kreander *et al.*, 2005). This notion is also confirmed in a recent study on SRI equity indices as Schröder (2007, p. 344) conclude that "the SRI screens for equities neither lead to a significant out-performance nor an underperformance compared to the benchmarks".

How important, then, is the financial performance of SRI to the individual SR-investor? Previous research indicates that the financial performance of SRI profiled mutual funds is important for the private SR-investor. For example, Nilsson (2008) found a significant relationship between the perception of SRI return and the proportion of the investment portfolio invested in SRI profiled mutual funds. Moreover, a study by Lewis and Webley (1994) shows that willingness to invest in SRI profiled mutual funds fall if there is a perception of lower return. In their study, 32 percent of investors were prepared to accept a slightly lower return (9 percent as opposed to 10 percent) when investing in SRI. Moreover, 22 percent of investors were willing to invest in SRI at an 8 percent return. However, if the level of return falls to 5 percent (as opposed to 10 percent in "regular" investments) only 4 percent of the respondents stated that they would invest in SRI, indicating that there is a relationship between demand for SRI and perception of financial performance. However, in a more recent study by Lewis and Mackenzie (2000a) this relationship is not as clear as the authors report that 56.5 percent of the surveyed ethical investors claimed that they would keep their SR- investments at a significantly lower rate of return (5 percent as opposed to 10 percent). The large proportion of investors that would keep their investments at a lower rate of return indicates that SR-investors seem to be somewhat price inelastic.

	Aim/research question(s)	Methodology	Summary of main results/conclusions
Beal and Goyen (1998)	Explore why investors invest in an ethically acceptable nature conservation company	Questionnaires answered by 739 investors of the nature conservation company	Environmental aspects were more important than financial return in the decision to invest. The investor of the company was more likely to be female, highly educated, older, and have higher household assets than the average investor
Getzner and Grabner-Kräuter (2004)	Investigate the willingness of consumers to invest in "green shares"	Computer aided telephone interview with 400 consumers	Expected profit, environmental awareness, education, and income were explanatory variables of consumer willingness to invest in "green shares"
Lewis and Mackenzie (2000a)	Answer exploratory questions such as who invests in SRI, perceptions of SRI return, and elasticity of demand for SRI	Questionnaire answered by 1146 investors	40% of socially responsible investors in the sample believe that SRI generates lower return than "regular" investments. SR-investors would also keep their SR-investments even if they perform worse than regular investments indicating that SR-investors are somewhat price inelastic for losses
Lewis and Mackenzie (2000b)	Explore the support for increased shareholder activism among SR-investors	Questionnaire answered by 1146 investors	SR-investors support the current practices of avoidance of companies considered "bad" and rewarding of companies considered to be "good". Less support for more radical actions for change
Lewis and Webley (1994)	Investigate the relationship between values, beliefs, and the investment decision	Interviews with 100 people and a simulation on 84 students	People displaying "green" attitudes are more positive toward SRI. Investment in SRI is found to be price-elastic as investors are not willing to accept a much lower return than the return that could be generated elsewhere

(*continued*)

Table I.
Previous research on private SR-investors

Table I.

	Aim/research question(s)	Methodology	Summary of main results/conclusions
Mackenzie and Lewis (1999)	Examine the relationship between ethical and financial beliefs and the desires of SR-investors	20 semi- structured interviews	SR-investors were not willing to sacrifice essential return for social responsibility. Different strategies were used by investors to deal with this. For example, investors invested only a small part in SRI or categorized their investments in a manner where "surplus" money (as opposed to "core" money) was more likely to be traded away for social responsibility
McLachlan and Gardner(2004)	Compare "conventional" and "socially responsible" investors	Questionnaires answered by 55 "conventional" and 54 "SRI" investors	SR-investors care more for ethical issues than conventional investors.(socio-demographic differences between the groups were found
Nilsson (2008)	Examine the impact of a number of "pro-social" and "financial" variables on SR-investment behavior	Questionnaire answered by 439 SR-investors and 89 "regular" investors	Both pro-social attitudes as well as perception of financial performance had an impact on how much the investor chose to invest in SRI. Moreover, women and better educated investors invested a greater proportion of their portfolio in SRI
Rosen *et al.* (1991)	Answer exploratory issues such as the demographic profile of SR-investors and the issues that are important to them	Questionnaire answered by 1493 SR-investors	SR-investors were found to be younger and better educated. Environmental and labor relations are important for corporate behavior to be perceived as responsible by the investors

The general conclusion that can be drawn from these studies is that there is a relationship between demand for SRI and perception of financial performance as a decline in perceived future returns make fewer people want to invest in SRI. However, as some investors seem to be willing to invest in SRI despite a lower return, the studies also indicate that the relationship between demand for SRI and perception of financial performance may not be as price elastic as for "regular" investments. Factors that confuse the picture, however, is that investors seem to have difficulties in deciding what an appropriate level of return is and that investors do not know how socially responsible investments perform (e.g. Mackenzie and Lewis, 1999). Thus, it is difficult for investors to make informed choices since they have to rely on their, sometimes incorrect, perception of performance.

The importance of social responsibility when investing in SRI profiled mutual funds. As mentioned above, previous research indicates that private investors seem to be somewhat price inelastic when it comes to investing in SRI profiled mutual funds. The most likely explanation for this willingness to trade off some financial return is that investors perceive SEE issues to be important. The fact that SR-investors do perceive SEE issues to be important is displayed by Beal and Goyen (1998) who survey investors in a nature conservation company in Australia. They reached the conclusion that environmental issues, such as conservation of plants and endangered animals, were *more* important than financial considerations for the investors in the company. In attempting to explain why investors sometimes perceive social and environmental issues to be important Beal *et al.* (2005) highlight concepts such as "non-wealth returns" and "psychic returns". That is, by investing in SRI, investors receive returns that are not in the form of financial gain. Instead, investors can receive value by feeling that they contribute to a worthwhile cause or do something for other people. With regard to the notion of psychic returns, Beal *et al.* (2005, p. 72) argues that SR investment can provide "SR investors with more than financial return. Investing in an ethical company or ethical funds is to a certain extent like investing in fine art – in addition to financial returns, the investment yields a flow of pleasure and even social status".

In all, the conclusion to be drawn from this body of research is that social responsibility could be an important value generating part for SR-investors. In some situations, as displayed by Beal and Goyen (1998), social responsibility could even be more important to the investor than financial return.

In total, the review of previous research presented above shows that there is evidence that both financial return and social responsibility matter for the SR-investor. We now turn to the second step of the review that relate to the second objective of the study, as we focus on the relevant profiling variables for the SR-investor.

Segmenting and profiling the SR-investor

There have been a few attempts to profile the SR-investor in previous research. For example, some studies argue that women invest more in SRI than men (e.g. Schueth, 2003; Sparkes, 2002). In line with this research, Nilsson (2008) found that women tended to invest a larger share of their portfolio in SRI. Moreover, age and education have been connected to SRI as SR-investors tend to be younger (e.g. Rosen *et al.*, 1991) and better educated (e.g. Rosen *et al.*, 1991; Nilsson, 2008). However, despite this research, the literature regarding the profile of the SR-investor is limited. Because of this, we look to two separate fields for variables that could be useful in profiling the SR-investors. First, we review the consumer behavior literature that contain a large amount of research that profile and segment the consumer who performs environmentally and socially conscious consumer behaviors. Second, we review the literature on private investment behavior for variables that could be of importance in profiling the private SR-investor. These two areas are addressed in turn below.

Profiling variables from the SEE consumer behavior literature. Within the pro-social consumer behavior literature there are, in general, two different categories of profiling variables that have received attention in previous research; socio-demographic variables (e.g. Diamantopoulos *et al.*, 2003; Van Liere and Dunlap, 1980), and knowledge, attitudinal and psychographic variables (e.g. Amyx *et al.*, 1994; Laroche *et al.*, 2001; Schwepker and Cornwell, 1991; Straughan and Roberts, 1999). With regard to the socio-demographic variables, gender, age, education, place of residence and income has been frequently used in previous studies (see Diamantopoulos *et al.*, 2003 for a review). However, with the exception of a few studies (e.g. Chan, 1999), these socio-demographic variables have not been as successful in profiling the socially responsible consumer as psychographic variables (Roberts, 1996; Samdahl and Robertson, 1989; Straughan and Roberts, 1999). As an explanation of why the socio-demographic variable of income is not a good predictor of socially responsible consumer behavior, Roberts (1996) suggests that environmental deterioration is becoming so severe that the traditional hypotheses regarding the influence of income may not be valid anymore. This explanation could be a likely cause for many of the socio-demographic variables as environmental concern have increased and become widespread among the general population (e.g. Lampe and Gazda, 1995).

Because of the poor results of demographic variables, Straughan and Roberts (1999) suggest that researchers should combine demographic variables with attitudinal variables or use an all-attitudinal scheme for segmentation of the environmentally conscious consumer. In their study, where they aim to identify a model for segmenting green consumers, they find that the two most important variables predicting environmentally conscious consumer behaviors were the attitudinal variables of perceived consumer effectiveness (PCE) and altruism. The most important of these two segmentation variables, PCE, relates to the notion that consumers are more likely to engage in pro-social activities if they believe that their individual actions will make an impact towards solving the SEE issue in question (Berger and Corbin, 1992). PCE, in the SRI context, would imply that private investors would be more likely to invest in SRI profiled mutual funds if they believed that their individual investment would make a contribution towards the social issues addressed in the investment scheme. If the individual investors, on the other hand, felt that their individual investment would do little to help solving the SEE issues addressed in SRI, they would be less likely to invest in SRI profiled mutual funds. In previous research in the SRI context, PCE has been shown to influence private investment in SRI (Nilsson, 2008), confirming the importance of PCE in the investment context. The second most important variable predicting environmentally conscious consumer behavior in the Straughan and Roberts (1999) study was altruism. In their study, altruism is described as concern for the welfare for others, which translated to the area of SRI profiled mutual funds means that private investors should be more likely to invest in SRI if they felt that their actions somehow increased the wellbeing of others.

One interesting variable that was not included in the Straughan and Roberts (1999) study is that of consumer trust in the pro-social initiative. Trust has been extensively researched within the marketing discipline (e.g. Osterhus, 1997; Morgan and Hunt, 1994; Singh and Sirdeshmukh, 2000; Garbarino and Johnson, 1999). Previous research within the pro-social consumer behavior domain indicate that trust is likely to be important for marketers of pro-social products as skepticism among consumers towards green products are reported to be high. For example, in one survey, 29 percent of non-green consumers claimed that they were skeptical if green products really were better for the environment (Gardyn, 2003). This skepticism regarding the trustworthiness of green products is not surprising considering that research have shown environmental advertising claims to be misleading (e.g. Kangun *et al.*, 1991; Polonsky *et al.*, 1998). In all, this indicates that trust is a major concern for marketers of SRI profiled mutual funds as consumers would be less likely to invest in SRI if they do not trust the underlying social initiative.

Profiling variables from the financial services and investment behavior literature. The second research area that is of interest in order to find profiling variables corresponding to the second objective of the study, is that of consumer behavior with regard to investment services. In general, buying investment services is a complicated task that demands a lot of time, effort, knowledge, and involvement from the consumer. However, previous literature testifies of a lack of knowledge and interest by the consumer (e.g. Capon *et al.*, 1996; Diacon and Ennew, 2001). Although there is some evidence suggesting that affluent investors have somewhat better knowledge (Capon *et al.*, 1994), there seems to be a large segment of investors who display a very low level of knowledge about their own investments (Capon *et al.*, 1996). The problem that causes consumers to have low levels of knowledge, however, is not necessarily lack of information. Instead, some researchers argue that the market for mutual funds could be characterized by too much complex information that, in turn, make consumers unwilling to learn about financial services (Diacon and Ennew, 2001).

In previous research there have been a few attempts to segment the market within a general financial services setting (Speed and Smith, 1992). Examples of this include Beckett *et al.* (2000) who group consumers based on involvement and confidence and Harrison (1994) who segment the financial services consumer along perceived knowledge and financial maturity. However, with regard to the specifics of consumer investment behavior, segmentation attempts are less frequent. One interesting study that deals with segmentation of private investors is Wood and Zaichkowsky (2004). In their study they find four different clusters based on five different attitudinal variables. The five segmentation variables includes investment horizon, risk attitude, personalization of loss, confidence, and control. The first cluster that was created based on these variables was "risk-intolerant" traders. This segment showed a low tolerance for risk in their portfolio and also traded little. The second cluster in the study was labeled "confident traders" and was characterized by high levels of confidence and control. The third segment created was the "loss-averse young traders" segment. This segment is characterized by having high levels of personalization of loss and low levels of confidence and control. The final segment created in the study was the "conservative long-term investors", a group that has a longer investment horizon than the other groups. In general, the Wood and Zaichkowsky (2004) study shows that it is possible to perform a meaningful segmentation of private investors. Furthermore, as the five segmentation variables were used to segment "regular" investors, they also have the potential to be important to the segmentation of SR-investors. Thus, the Wood and Zaichkowsky (2004) study represent an interesting point of departure for segmenting SR-investors

In all, the literature with regard to the three theoretical areas (literature on SRI, literature on socially responsible consumer behavior, and literature on private investment behavior) reviewed above contain several important variables for the purpose of the study. In this study, we draw on all areas to segment the SR-investor with the purpose of increasing knowledge of why consumers choose to invest in SRI. This is further elaborated on in the methodology section below.

Methodology

Item development

In order to address the importance of financial return and SEE issues for investors when choosing to invest in SRI profiled mutual funds, a questionnaire targeted towards SR-investors was developed. As displayed in Table II, the questionnaire contained both "clustering" as well as "profiling" variables. Details of the variables included in the questionnaire are given below starting with the clustering variables.

The clustering variables. As the first objective of the study was to segment SR-investors based on importance of social responsibility and financial performance, the main clustering variables in the study were the service specific attitudes of "importance of social responsibility" and "importance of financial performance". Two questions addressed each clustering variable. The first question asked the respondents to grade how important financial return and social responsibility was respectively when they made the decision to invest in the SRI mutual fund. The second question, set up in a similar manner, asked for the respondents to imagine that SRI could generate two forms of return; "financial" and "socially responsible" (social responsibility return

Clustering variables	Profiling variables			
Service specific attitudes	Investment related attitudes	Pro-social consumer behavior attitudes	Behavioral	Socio demographic
Importance of social responsibility	Confidence	PCE (of SRI)	Trading activity	Age
Importance of financial return	Risk attitude	Altruism	Total invested amount	Gender
	Investment horizon	Trust (in SRI)	Total No. of mutual funds	Income
	Personalization of loss		Number of mutual fund providers	Education
	Control		% invested in SRI	Place of residence
			No. SRI mutual funds	
			Time as a SRI investor	

Table II.
The variables included in the questionnaire

was defined as the social responsible gain to society by investing in SRI funds) and asked for importance of the different forms of return.

The profiling variables. As the second objective of the study involved profiling possible segments, many different profiling variables were included in the questionnaire. As displayed in Table II, four major groups of profiling variables can be distinguished. Most of the metric scales has been used in previous research (e.g. Wood and Zaichkowsky, 2004; Straughan and Roberts, 1999). However, all the scales were modified in one way or another to fit the context of the study and the general area of socially responsible investment. Therefore, all scales were pre-tested before they were included in the questionnaire. All the metric scales used in the study are displayed in Table III.

The first group of profiling variables consists of the investment specific attitudes; confidence, risk attitude, investment horizon, personalization of loss, and investment control. Wood and Zaichkowsky (2004) was used as a starting point for the investment related constructs as they used the five different constructs as the base of a segmentation study among investors. However, since some of the scales in that study included only two items and pre-testing showed low reliability for some of the constructs, the scales were modified. Thus, some items from the previous scales were removed while others were modified and some were added until each construct was represented by four items (Hair *et al.*, 2003 recommend at least three) and the measures were considered to be reliable.

The second group of variables included in the questionnaire as profiling variables is made up of pro-social consumer behavior related constructs. Three different variables were incorporated; PCE, altruism, and trust. These three variables have been used in several consumer behavior studies focusing on ethical, socially responsible, or environmentally conscious shopping (e.g. Osterhus, 1997; Roberts, 1996; Straughan and Roberts, 1999). However, since this study is on investors the items were modified to be contextualized to the investment industry, in order to avoid problems with measures that are too generalized (for further discussion on the topic of generalized measures in pro-social consumer behavior studies see for example the reviews in Bratt, 1999; Follows and Jobber, 2000). PCE is measured with four Likert style items adapted from previous research (Roberts, 1996; Straughan and Roberts, 1999). However, as mentioned above, the items were modified to fit the context of the mutual fund industry. In doing this one of the original items were replaced by a more SRI contextualized item and the wording was changed for the items. A five item scale was created to measure trust in SRI. In doing this, trust was conceptualized following Morgan and Hunt (1994, p. 23) who highlight trust as "confidence in the exchange partner's reliability and integrity". Thus, the five items were constructed to reflect a perception of confidence that the service provider has the willingness and ability to follow the pro-social attributes and guidelines properly. Finally, altruism was also included as a profiling variable. In this study, how much the investor donates to charity during a year is used as an indicator of altruism.

The last two groups of profiling variables were behavioral and socio-demographic items. The behavioral variables included various investment related behavior including trading activity, amount invested in mutual funds, number of mutual funds invested in, number of fund providers used, relative percentage of investments invested in SRI, time as an SR-investor, and number of SRI funds invested in. The

Construct	Cronbach's alpha for scale
Importance of social responsibility and financial return in SRI investment[a] (5 point Likert scale anchored by very important and not at all important) 1. When you made your investment in SRI profiled mutual funds, how important was it for you that: a. The mutual fund had good financial prospects b. The mutual fund had a good socially responsible initiative 2. Imagine that mutual funds can generate two different forms of return; financial and socially responsible. With this as a condition, how important is it for you that: a. Your SRI mutual fund generates good financial return b. Your SRI mutual fund generates good socially responsible return (by following socially responsible guidelines and thereby has a positive effect on social and environmental issues)	SR = 0.81 FR = 0.76
PCE of SRI[b] (5 point Likert scale anchored by totally agree and totally disagree) 1. By investing in SRI every investor can have a positive effect on the environment 2. Every person has power to influence social problems by investing in responsible companies 3. It does not matter if I invest my money in SRI mutual funds since one person acting alone cannot make a difference (reversed) 4. It is useless for the individual consumer to do anything about pollution (reversed)	0.75
Trust in SRI (5 point Likert scale anchored by totally agree and totally disagree) 1. I trust that ____ (name of SRI provider) follow the socially responsible guidelines used in their marketing 2. The SRI funds offered by ____ (name of SRI provider) is an honest attempt to improve social issues such as pollution 3. I trust ____ (name of SRI provider) SRI mutual funds to do their best in trying to get companies to act in a way that reduces social problems such as pollution and third world poverty 4. I trust that ____ (name of SRI provider) SRI profiled mutual funds do not invest their capital in companies that manufacture weapons and tobacco 5. Providers of SRI profiled mutual funds have(genuine interest in improving the environment since they, like every other company, primarily wants to make a profit (reversed)	0.81
Confidence[c] (5 point Likert scale anchored by totally agree and totally disagree) 1. I am an experienced and knowledgeable investor 2. When I made a winning mutual fund investment I feel that my knowledge regarding the stock market affected the result 3. I expect my mutual fund investments to perform better than the stock market index 4. For the most part my mutual fund investments perform better than the stock market index	0.70
Horizon[c] (5 point Likert scale anchored by totally agree and totally disagree) 1. Daily fluctuations in the stock market do not concern me since my investment focus is on long term performance 2. If my mutual funds dropped 20 percent over 6 months, and this drop coincided with a general stock market slump, I would keep that investment in hopes that it would recover	0.53

(*continued*)

Table III.
The items for the scales

Construct	Cronbach's alpha for scale
3. I make most of my investments in mutual funds with a long term focus since it is hard for an individual investor to profit from short term investments	
4. I take part of financial information (through television or financial newspapers) on a daily basis as I am always prepared to sell my mutual funds (reversed)[d]	
Risk attitude [c] (5 point Likert scale anchored by totally agree and totally disagree)	0.69
1. I am prepared to choose mutual funds with a high level of risk in order to earn greater returns	
2. I feel a little uneasy investing in mutual funds and stock since there is a possibility that my money will be lost (reversed)	
3. I invest most of my money in low risk mutual funds because I am worried that I will lose my money if I invest in mutual funds with a higher risk level (reversed)	
4. I often choose mutual funds with a high level of risk since I believe that they will perform better in the long term	
Control [c] (5 point Likert scale anchored by totally agree and totally disagree)	0.70
1. To be able to buy and sell mutual funds by my self, without the involvement of a bank or broker, make me feel safer with my investments	
2. I spend a considerable amount of time in researching my mutual fund investments	
3. The more information I collect, the more confident I feel with my mutual fund investments	
4. I check the performance of my investments frequently	
Personalization of loss [c] (5 point Likert scale anchored by totally agree and totally disagree)	0.66
1. I find it very difficult when my mutual funds and stock decrease in value	
2. I often get sad when my mutual funds decrease in value even though I know that the stock market sometimes performs poorly	
3. I often get more sad when my mutual funds decrease in value than I get happy when my mutual funds increase in value	
4. In a long term investment strategy you have to tolerate that the value of your mutual funds decrease from time to time	

Notes: These are all translations into English as the original questionnaire was in Swedish; [a] The SR index consist of question 1a and 2a, the FR index consist of question 1b and 2b; [b] Scale based on Roberts (1996) and Straughan and Roberts (1999). However, the scale and its items have been modified to fit with the current study as described in the article; [c] Scale based on Wood and Zaichkowsky (2004). However, the scale and its items have been modified (i.e. scale extended or shortened, or item replaced or worded differently) to fit with the current study as described in the article; [d] Deleted item

Table III.

socio-demographic variables included data on age, gender, income, place of residence, and education.

Sample and data collection

After the completion and pre-testing of the questionnaire it was mailed out to a sample of 2000 investors that owned at least one SRI profiled mutual fund. In order to solve the (difficult) issue of getting access to SR-investors, an SRI mutual fund provider agreed to send out the questionnaires to a randomly selected sample of customers in their database. Of the 2000 questionnaires sent out, a total of 563 were returned and usable which represents a response rate of 28.2 percent.

Preliminary data analysis showed that more women (63 percent) than men (37 percent) were in the sample. This majority of women respondents were expected as previous research have largely found that women are more likely to invest in SRI than men (Beal and Goyen, 1998; Schueth, 2003). The average age for the sample was 62 with a standard deviation of 5.4 indicating a concentration of respondents to the higher age groups. The average investor allocated 21-30 percent of their investments to SRI. However, the mode value indicates that the most common strategy was to put 1-10 percent in SRI (indicated by 23 percent of the respondents). This percentage was allocated to an average of 2.23 SRI mutual funds. However, 39 percent of the sample only had one SRI mutual fund.

Scale reliability

After reviewing the preliminary data on the sample, Cronbach's alpha tests were run in order to check reliability of the metric measures used in the study. As displayed in Table IV, most of the measures received satisfactory alpha values. The only scale with a low alpha value was the "investment horizon" construct that received a 0.53 alpha score after one of the items had been deleted. However, as this value is above some recommended estimates of reliability (such as Nunnally, 1967), a decision was made to keep the construct in the analysis for exploratory purposes. The complete set of items for the constructs displayed in Table IV is presented in Table III.

Data analysis and results

The data analysis was made up of two major steps. The first step in the analysis of the data was to perform a cluster analysis (corresponding to the first objective of the study). Based on the two variables "importance of financial return" and "importance of social responsibility", SR-investors were grouped using a hierarchical cluster procedure with Wards linkage and squared Euclidean distance. The second step of the analysis was the profiling of the cluster solution (corresponding to the second objective of the study). For the ten metric profiling variables this was done through a stepwise discriminant analysis with the three-cluster solution as the dependent variable and the metric profiling variables as independents. For the remaining non-metric variables chi-square tests were used.

Construct	No. of items	Cronbach's alpha
Importance of social responsibility	2	0.81
Importance of financial return	2	0.76
Perceived consumer effectiveness of SRI	4	0.75
Trust in SRI	5	0.81
Investment confidence	4	0.70
Risk attitude	4	0.69
Investment horizon	3	0.53
Personalization of loss	4	0.66
Investment control	4	0.70

Table IV.
Constructs and reliability

Cluster analysis

Based on the results of the cluster analysis, a three cluster solution was chosen using the percentage change in heterogeneity stopping rule (Hair *et al.*, 2006). The percentage change in heterogeneity rule involves estimating the change in heterogeneity between different clustering solutions with the aim of getting the simplest structure possible while still having homogeneous clusters (Hair *et al.*, 2006). The percentage changes in heterogeneity between the different clustering solutions were calculated and are shown in Table V. As displayed in the table, the largest change in heterogeneity is between the three- and the two cluster solution. Because of this, the three cluster solution was judged to be the best solution for further analysis. Moreover, the three cluster solution also proved to be manageable in terms of the subsequent profiling of the segments.

After having generated the three cluster solution, the clusters were graphically outlined in a scatter plot (see Figure 1). When examining the graphical outline of the clusters it became clear that the three clusters all had unique characteristics. The largest of the three clusters was labeled "socially responsible and return driven"

Cluster No.	Coefficient	Percentage change in heterogeneity (to go to next cluster solution)
6	104.683	28.6
5	134.678	33.9
4	180.406	26.7
3	228.509	50.4
2	343.607	43.1
1	491.757	

Table V.
Percentage change in heterogeneity between different clustering solutions

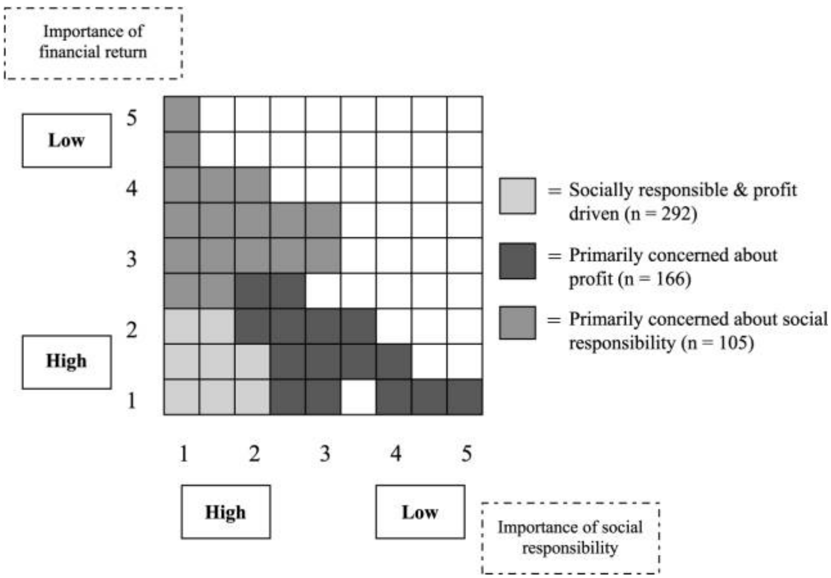

Figure 1.
Scatter plot of the three investor clusters

(n = 292). This segment, outlined in the bottom left part of the scatter plot in Figure 1, display high levels of importance for both financial return and social responsibility. The second largest segment (n = 166) was labeled "primarily concerned about profit" SR-investors. These individuals display a moderate to high level of concern for financial return and the lowest levels of concern for social responsibility. Thus, this segment is likely to invest in SRI mutual funds because they perceive a possibility for future financial gains in investing in SRI funds and not primarily because the funds SEE investment strategy. The last and smallest of the three clusters was labeled "primarily concerned about social responsibility" (n = 105). These investors exhibit a high level of importance for socially responsible issues but show the lowest levels of concern for financial return. As opposed to the "primarily concerned about profit" segment, these investors are likely to invest in SRI because of the funds socially responsible profile.

After reviewing the graphical outline of the clusters, the mean values of the groups were inspected and plotted in a separate matrix (see Figure 2). After this, separate one-way ANOVA tests were run on the clusters. As the Levenes test for homogeneity of variance was significant for importance of return ($F(2, 560) = 39.18$, $p < 0.001$) and importance of social responsibility ($F(2, 560) = 13.99$, $p < 0.001$), Games-Howell post hoc tests were used as it is designed for situations where population variances differ (Field, 2005). The ANOVA results showed a significant difference between the means with regard to both importance of return ($F(2, 560) = 443.37$, $p < 0.001$) and importance of social responsibility ($F(2, 560) = 231.43$, $p < 0.001$). These results were also significant for both variables at ($p < 0.001$) with the Welch's F statistic. As displayed in Table VI, Games-Howell tests displayed significant differences between all groups at ($p < 0.001$) for importance of financial return and at ($p < 0.05$) for importance of social responsibility.

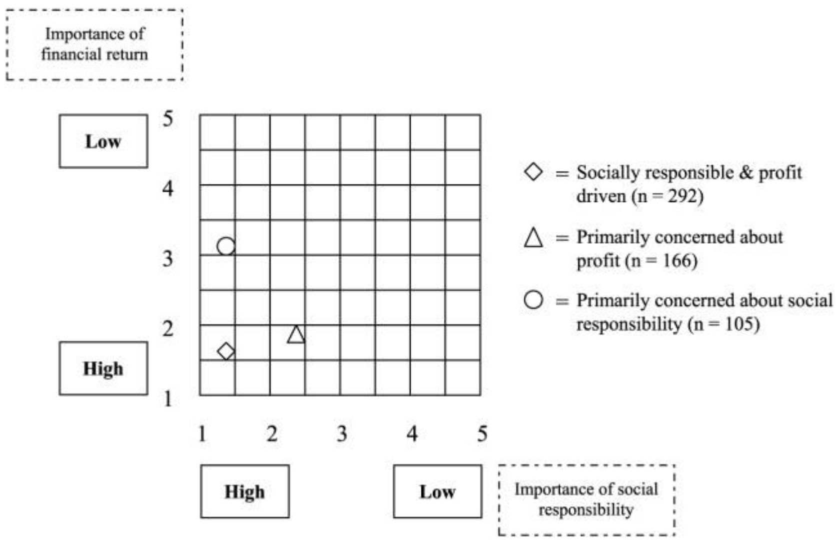

Figure 2.
The mean values of the three clusters

Profiling the clusters

In order to address the second objective of the study, the next step in the data analysis was to profile the three clusters. This was done using the profiling variables included in the questionnaire. The first step of the profiling procedure was to run a regular discriminant analysis in order to evaluate the metric profiling variables in an exploratory manner. The preliminary evaluation of the means, as displayed in Table VII, showed promising discriminant ability for some of the independent variables. For example, the "primarily concerned about profit" segment scored higher levels of investment related variables such as investment confidence and risk willingness. On the other hand, this group displayed the lowest levels on the variables that relate to socially responsible consumer behavior such as trust and PCE. At the other end of the spectrum, the "primarily concerned about social responsibility" segment showed the highest level of PCE and the lowest level of investment control and confidence. The "socially responsible and return driven" group for the most part scored levels in between the two other clusters.

After having reviewed the means in an exploratory manner, a stepwise discriminant analysis using Mahalanobis distance was run to evaluate the discriminant ability of

	Socially responsible and return driven ($n = 292$)		Primarily concerned about profit ($n = 166$)		Primarily concerned about social responsibility ($n = 105$)	
	Mean	SD	Mean	SD	Mean	SD
SR[a]	1.26	0.355	2.26	0.584	1.44	0.598
FR[b]	1.68	0.407	1.99	0.335	3.10	0.551

Notes: [a] Significant for all groups ($p < 0.05$) using Games-Howell *post hoc* test; [b] significant for all groups ($p < 0.001$) using Games-Howell *post hoc* test

Table VI. The mean values of the three clusters

	Total sample	"Socially responsible and return driven"	"Primarily concerned about profit"	"Primarily concerned about social responsibility"
Age	61.94	61.77	62.10	62.14
Confidence[a]	3.15	3.20	2.88	3.42
Risk[a]	3.24	3.34	2.97	3.40
Loss[a]	3.51	3.49	3.46	3.65
Horizon[a]	1.74	1.67	1.80	1.84
Control[a]	3.23	3.25	3.00	3.55
PCE[a]	1.74	1.79	2.12	1.67
Trust[a]	1.95	1.55	2.20	1.99
No. of mutual funds	5.35	5.16	6.01	4.84
No. of providers	2.24	2.23	2.36	2.09

Notes: [a] Measured on a five level Likert scale where 1 indicate a high level and 5 indicate a low level

Table VII. Means for the three cluster solution for the metric variables the profiling variables (Hair *et al.*, 2006). The homogeneity of variance assumption was met for the analysis displayed by the non-significant Box's M (F (12, 523262.6) $= 1.424$, $p = 0.146$) (Sherry, 2006). As indicated in Table VIII, the canonical discriminant functions were small for the two functions (function 1 $= 0.408$ $R_c^2 = 16.6$ percent, function 2 $= 0.160$ $R_c^2 = 2.5$ percent) indicating that the functions explain a small part of the variance. Both functions, however, were significant at $p <$ 0.001 and can thus be included in further analysis (Sherry, 2006).

The results of the stepwise discriminant analysis are displayed in Tables IX and X. As shown in Table IX, three of the ten variables entered (investment confidence, trust, and PCE) showed discriminant ability between the groups. These three were therefore kept after running the stepwise analysis. The standardized discriminant function coefficients and structure coefficients displayed in Table IX indicate that PCE contributed the most to the differences between the segments in the first function. For the second function, investment confidence contributed the most to group differences. When examining the group centroids (Table X), the "primarily concerned about profit" segment were had the highest value of all groups for function 1. Analyzed together with the data in Table IX, this indicates that the "primarily concerned about profit" hold the lowest levels of PCE. Moreover, this group is also more confident regarding their investment ability than the other groups. As displayed in Tables IX and X, the differences between the two remaining groups are smaller. However, the "primarily concerned about social responsibility" group holds the least amount of confidence of all groups.

Table VIII.
Wilks's lambda and canonical correlations for the three cluster solution

Function	Wilks's Lambda	Chi-square	Df	P	R_c	R_c^2 %
1-2	0.812	116.596	6	0.000	0.408	16.6
2	0.974	14.559	2	0.001	0.160	2.5

Table IX.
Summary of standardized discriminant function and structure coefficients for the three cluster solution

Scale	Coefficient	r_s	r_s^2 %
Function 1			
Investment confidence	−0.467	−0.536	28.7
Trust	0.278	0.600	36
PCE	0.678	0.860	74
Function 2			
Investment confidence	0.796	0.788	62.1
Trust	0.558	0.612	37.5
PCE	0.107	0.291	8.5

Table X.
Functions at group centroids

Cluster	Function 1	Function 2
Socially responsible and return driven	−0.308	−0.109
Primarily concerned about profit	0.689	−0.015
Primarily concerned about social responsibility	−0.234	0.328

The final step of the profiling procedure was to examine the non-metric profiling variables for statistical differences between the three clusters. This was done using the chi^2 statistic. As displayed in Table XI, many variables showed significant differences between the segments. Gender, education, altruism, trading activity, and time as SR-investor all received significant values at $p < 0.05$. However, income, amount invested in mutual funds, place of residence and employment did not show significant differences between the groups.

The segments

Socially responsible & return driven. The group of SR-investors that are characterized by being interested in both a high level of financial return as well as a socially responsible investment profile is the largest of the three clusters consisting of approximately half of the sample. This segment display high levels of trust in the SRI industry and to a certain extent believe that the acts of one person towards solving social and environmental issues can make a difference (PCE). The SR-investors in this group have invested in SRI for the longest amount of time of all clusters indicating that their experience with SRI mutual funds is greater than the other groups. Women make up the majority of this segment and this is also where the largest depth of SR investment can be found. Almost 10 percent (9.9 percent) of this segment put 100 percent of their mutual fund portfolio in

		"Socially responsible and return driven" (%)	"Primarily concerned about profit" (%)	"Primarily concerned about social responsibility" (%)	*P* value	*n*
Gender	Male	31	49	32		
	Female	69	51	68	0.001	562
Altruism[a]	Nothing	5	10	5		
	1-1000	36	51	23		
	1001-5000	45	32	47		
	>5000	13	7	25	0.000	512
Trading activity	At least once a month	2	5	2		
	At least once every 6 months	16	18	13		
	At least once a year	27	37	27		
	Less than once a year	55	40	58	0.030	516
Education	University graduate	68	48	70		
	Not university graduate	32	52	30	0.000	559
Time as SR investor	6 years or less	28	44	27		
	More than 6 years	72	56	73	0.001	548
% invested in SRI	1-20%	37	57	40		
	21-40%	23	23	25		
	41-60%	18	10	14		
	61-80%	7	5	8		
	81-100%	15	5	13	0.001	527

Notes: [a] Donated to charity during last year; currency in Swedish kronor (SEK)

Table XI. Chi^2 analysis of non-metric profiling variables

SRI profiled mutual funds. This is also the best educated group where almost 70 percent have a university degree. In general, this group is fairly comfortable in making investment decisions and because of their high levels of trust they chose SRI profiled mutual funds to be part of their investment portfolio.

Primarily concerned about profit. The segment that sticks out the most in terms of the profiling variables is the "primarily concerned about profit" group. This group does not care as much about the socially responsible aspect of SRI as the other two groups. They also invest the least amount in SRI as 57 percent of the segment invests less than 20 percent of their overall portfolio in SRI. Only 5 percent invest more than 80 percent of their portfolio in SRI. This segment displays the highest level of investment confidence. The confidence aspect is also reflected in the fact that this group trades more than the other groups. With regard to the pro-social profiling variables the profit driven SR-investors show low levels of both PCE and trust. Moreover, this group gives the least to charity of all segments (as 61 percent gives 1000 SEK or less per year). These results confirm the nature of this group as not as concerned about social and environmental issues as the other two groups. With regard to socio-demographic characteristics the primarily concerned about profit SR-investors are to a higher extent male (49 percent). They also have less formal education than the other groups as 48 percent have a university degree (compared to approximately 70 percent in the other two groups). In essence, this group feels confident in making investment decisions and chose SRI profiled mutual funds as part of their portfolio because they believe that these funds could represent a good choice financially.

Primarily concerned about social responsibility. The last of the three clusters to be profiled is the socially responsible segment. The "primarily concerned about social responsibility" group cares less about financial return as they seem to put more emphasis on social responsibility when investing in SRI profiled mutual funds. This fact, however, should not be interpreted that this group has no interest in return at all. As the median investment in SRI in this group was between 20 and 30 percent, we should interpret this lack of interest of financial return as specific for their SRI investments, not their overall investment strategy. Thus, this group invests a certain part of their funds in SRI and for these specific funds, return is not the most important issue. The socially responsible segment has the lowest investment confidence scores indicating that they are not comfortable with making investment decisions. This segment show altruistic signs as they give the most of all groups to charity (25 percent of the segment gave more than 5000 SEK the previous year compared to 13 percent and 7 percent for the other clusters). The SR-investors that make up this group also believe that the actions of one investor can make a difference towards solving SEE problems as indicated by the highest PCE scores of all groups. Demographically, this group consists of well educated female investors. In general, this group is not very confident making investment decisions and because of their high involvement with pro-social issues they chose to invest their money in SRI mutual funds.

In many ways, this segment is the most interesting group of investors as it puts social responsibility over financial return and thereby somewhat challenges the notion of profit maximization as the main investment motive. Because of this aspect, this segment was further profiled. The focus of this additional profiling was specifically on gender and level of education as these socio-demographic variables has been argued to be important factors in profiling the SR-investor (e.g. Schueth, 2003; Beal and Goyen, 1998; Rosen *et al.*, 1991). In performing the additional profiling of the segment gender and education was tested against confidence, trust, PCE, altruism, trading activity, and how much that is invested in SRI. A few of these yielded significant results on gender and education. With regard to gender, t-tests and chi-square tests showed that the men in the segment were more confident ($t\ (95) = -2.6, p < 0.05$) and traded more ($\chi^2\ (3) = 8.60, p < 0.05$) than the women in the segment. However, no significant differences in gender were found for the other variables entered (altruism, PCE, trust, percent of portfolio in SRI). With regard to level of education, *t*-tests and chi-square tests showed that the people within the segment that had a university degree had lower investment confidence ($t\ (103) = -3.83, p < 0.05$) and traded less ($\chi^2\ (3) = 16.48, p < 0.05$) than the less educated members of the segment. The people with a university degree also displayed a higher level of PCE ($t\ (103) = 2.14, p < 0.05$) and higher levels of altruism ($\chi^2\ (3) = 13.28, p < 0.05$) as they give more to charity than the people without a university degree. No differences were found in how much was invested in SRI and in trust.

In essence, the additional profiling shows that gender and education can explain some of the characteristics within the "primarily concerned about social responsibility" segment. In general, women within this segment seem to be less confident and trade less than the men in the segment. The better educated investors within the segment displayed higher levels of PCE and altruism, but lower levels of confidence and trading activity. However, it should be noted that although there are some within-segment differences, this cluster in general scored high on altruism and PCE and low on trading behavior and confidence.

Discussion and conclusions

This study is an investigation into individual socially responsible investment behavior. It makes a theoretical contribution to the literature on segmenting the financial services consumer in that it generates and applies new segmentation variables (in addition to the ones used in previous studies within the financial services marketing domain, e.g. Harrison, 1994; Beckett *et al.*, 2000), and develops segments of socially responsible investors with regard to their reasons for choosing to invest in SRI. In doing this, this study also contributes to the literature on private SR-investment by generating knowledge of how private investors handle the issue of financial return versus social responsibility when investing in SRI. Previous research on this topic have often reached different conclusions as some studies (e.g. Lewis and Mackenzie, 2000a) show that SR-investors are prepared to tradeoff some return for social responsibility while some studies (e.g. Mackenzie and Lewis, 1999; Lewis and Webley, 1994) have found that investors seem to be reluctant to sacrifice financial return (unless the sacrifice is very small). This study generates at least two major conclusions with regard to how private SR-investors deal with the relationship between financial return and social responsibility. The first of these conclusions is that there is a group of investors that regard financial return to be more important than social responsibility. Thus, it cannot be assumed that individuals who have invested in SRI are socially concerned. SR-investors may just as well be a profit maximizing investor that only chose SRI because of financial reasons. This may very well be a reasonable choice as SRI funds have displayed decent performance in the past (Hale, 2002; Bauer *et al.*, 2007). The second major conclusion of the study is that some SR-investors do not put financial return as the number one objective when making investment decisions. There is a distinct group of people that put social responsibility before financial return when they invest in SRI profiled mutual funds. This finding is in line with Beal and Goyen (1998) that find that their sample of investors in an ethical company perceived SEE issues to be more important than financial return. There are several explanations to why these investors do not invest with profit as the primary objective. One of the more appealing explanations of this behavior is brought up by Beal *et al.* (2005) who argues for the concept of "psychic return", where even though the investor does not maximize financial returns, they get some form of psychic return in terms of a socially responsible investment strategy. In this way, Beal *et al.* (2005) argues that psychic return in the form of social responsibility generates some form of added value to the investment. Statman (2004; 2008) argues in similar fashion claiming that investors want both expressive and utilitarian benefits. Therefore, financial profit may only be one of the expressive (non-financial) benefits desired by the investor. However, the "primarily concerned about social responsibility" segment should not be regarded as investors that have no interest in financial return at all. As the median investment in SRI in this study was 21-30 percent, this segment only consider socially responsible factors to be more important than financial return for the SRI portion of their investments, not for their overall portfolio of funds. The tendency to use different investment strategies for different parts of the investment portfolio is highlighted by Mackenzie and Lewis (1999). In their qualitative research they reach the conclusion that SR investors tend to divide their money into "core" and "surplus" funds where surplus funds can be used without as much demand for financial return. This is an appealing explanation for the observed behavior in this study.

In addition to this explanation, this group could, in many ways be likened to the consumers who are willing to pay a premium for SEE goods. Auger *et al.* (2003 p. 299) reached the conclusion that the average consumer in their sample was "quite willing to pay a significant percentage of the value of the product for specific ethical features". The findings of this study suggest that this could very well also be the case for investment services. This willingness to pay also seems to be connected to gender as the group that put social responsibility over financial return primarily consists of women. This relationship also have support in the literature as Laroche *et al.* (2001) who profile the consumer willing to pay a premium for environmentally friendly products found a relationship between gender and willingness to pay. On a more general level, it has also been shown that women behave in a more environmentally conscious manner and hold stronger environmental attitudes than men (Diamantopoulos *et al.*, 2003). However, it should be noted that although there is a group that may be willing to pay, there is little evidence that investors have to pay for social responsibility when investing in SRI profiled mutual funds. Instead, the majority of studies comparing SRI and non SRI profiled mutual funds have reached the conclusion that there is no significant difference that could be attributed to social responsibility (Bauer *et al.*, 2007; Kreander *et al.*, 2005; Statman, 2000). However, the fact that some investors are willing to pay is still important as it may give providers of SRI some room to focus more on the SEE part of the service. Moreover, as previous literature has shown that some SR-investors perceive that SRI underperform (Lewis and Mackenzie, 2000a), the "objective" performance of SRI is of little importance as investors will largely make decisions on their individual perceptions of return.

By focusing on reasons to invest in SRI, this study highlights that the relationship to financial return and social responsibility differ among SR-investors. The final conclusion of the study revolves around the notion that some investors prefer financial return while some investors focus more on social responsibility when they choose to invest in SRI profiled mutual funds. Thus, this study contributes with the insight that instead of asking if SR-investors are prepared to sacrifice return for socially responsible investment (as have been done in previous research), researchers should ask which SR-investors are prepared to do so.

Managerial implications

For providers of SRI mutual funds, the results of this study generate practical implications for marketing strategy. The first of these is that the current SR-investors care about both financial return and social responsibility, albeit with differing intensity. This means that in order to satisfy all three different customer segments, SRI providers has to live up to their slogan "making a profit while making a difference". As the different customer segments expect different things of their investment in SRI, it is important for providers to address both issues. For example, some SR-investors expect a thorough socially responsible initiative. These investors would probably be willing to sacrifice some return for social responsibility. However, if the SRI mutual fund would underperform financially, the individuals in the "primarily concerned about profit" group could leave for more financially oriented investment options. Thus, in order for SRI to keep (and expand) its customer groups it is crucial to address both issues of performing financially as well as socially.

However, the segmentation of SR-investors performed in this study also open up opportunities for targeting certain segments and offering differentiated socially responsible investment products to the different segments. For example, the "primarily concerned about social responsibility" segment would be a good target for a more thorough social investment product, where social return is put before financial return. This would open up opportunities for a more proactive social investment movement that would be less restricted by considerations for financial return.

One weakness of the clustering solution is that the segments may be hard to identify as they are based on attitudinal and not demographic variables. One solution to this weakness could be to focus on the demographic characteristics associated with the cluster. In this respect, gender seem to be a fairly good indicator of what segment investors belong to as both groups that care more about social responsibility consist of more women than men. In a similar manner, time as a SR-investor and how much invested in SRI could indicate the segment to which the investors belong. However, these demographic indicators should be used with caution as representatives from all socio-demographic groups seem to be present in all three segments.

A final remark regarding the managerial importance of the study is that these clusters may very well respond to marketing actions differently. As all three groups have different reasons for investment in SRI as well as different levels of investment confidence, PCE, and trust, there is an opportunity for SRI providers to provide tailored communication for all the different groups based on their characteristics.

Further research and research limitations

One of the limitations of this study is that it is performed using respondents from only one SR-provider. As providers of SRI profiled mutual funds use different selection criteria in choosing their investment objects as well as use differing strategies for practicing social responsibility, this could represent a limitation of the study. With respect to this, future research could benefit from confirming the results with regard to customers of different SR-providers, in different countries and regions.

Another limitation of this study that could merit attention in future research is the age variable as the current sample was concentrated to the older age brackets. This makes it difficult to reach any conclusions about age and SR-investment in the current study. Another potential limitation of this study is the presence of socially desirable responding in research about behavior with regard to SEE aspects. For example, Auger and Devinney (2007) show that willingness to pay measures could overstate intention to behave to some extent. It cannot be excluded that this could have some impact on the results of the mail survey, despite the fact that it was anonymous (which is considered to reduce socially desirable reporting).

This study has documented that investors have different reasons for investing in SRI profiled mutual funds. An interesting area for future research with regard to this segmentation would be to find out the reasons why investors belong to certain groups. Issues that could be focused on here include why some investors put social responsibility over return and why some investors prefer the opposite. What reasons do SR-investors have for the choices and preferences that they have? Is it possible to change these preferences so that they invest more of their portfolio in SRI?

Another issue for future research is to expand the profiling of the clusters. There are many profiling variables within consumer behavior such as involvement and knowledge that could be applied in order to get a deeper understanding of the members of the segments.

A final suggestion for future research is to focus on what kind of mutual funds that could be marketed to the different segments. As the study shows that investors have differing reasons to invest in SRI, they are also likely to be appealed by different applications of social responsibility in the mutual fund. By focusing on what characteristics of the mutual funds that is attractive to the different segments, it would make it easier for the SRI industry to target and position based on the segments presented in the study.

References

Amyx, D.A., DeJong, P.F., Lin, X., Chakraborty, G. and Wiener, J.L. (1994), "Influencers of purchase intentions for ecologically safe products: an exploratory study", in Park, C.W. and Smith, D.C. (Eds), *Marketing Theory and Applications: The Proceedings of the 1994 American Marketing Association's Winter Educator's Conference, AMA, Chicago, IL*, pp. 341-7.

Auger, P. and Devinney, T.M. (2007), "Do what consumers say matter? The misalignment of preferences with unconstrained ethical intentions", *Journal of Business Ethics*, Vol. 76 No. 4, pp. 361-83.

Auger, P., Burke, P., Devinney, T.M. and Louviere, J.J. (2003), "What will consumers pay for social product features", *Journal of Business Ethics*, Vol. 42 No. 3, pp. 281-304.

Bauer, R., Derwall, J. and Otten, R. (2007), "The ethical mutual fund performance debate: new evidence from Canada", *Journal of Business Ethics*, Vol. 70 No. 2, pp. 111-24.

Beal, D.J. and Goyen, M. (1998), "'Putting your money where your mouth is' a profile of ethical investors", *Financial Services Review*, Vol. 7 No. 2, pp. 129-43.

Beal, D.J., Goyen, M. and Phillips, P. (2005), "Why do we invest ethically?", *Journal of Investing*, Vol. 14 No. 3, pp. 66-77.

Beckett, A., Hewer, P. and Howcroft, B. (2000), "An exposition of consumer behaviour in the financial services industry", *International Journal of Bank Marketing*, Vol. 18 No. 1, pp. 15-26.

Berger, I.E. and Corbin, R.M. (1992), "Perceived consumer effectiveness and faith in others as moderators of environmentally responsible behaviors", *Journal of Public Policy & Marketing*, Vol. 11 No. 2, pp. 79-100.

Bratt, C. (1999), "Consumers' environmental behavior", *Environment and Behavior*, Vol. 31 No. 1, pp. 28-44.

Capon, N., Fitzsimons, G.J. and Prince, R.A. (1996), "An individual level analysis of the mutual fund investment decision", *Journal of Financial Services Research*, Vol. 10 No. 1, pp. 59-82.

Capon, N., Fitzsimons, G.J. and Weingarten, R. (1994), "Affluent investors and mutual fund purchases", *International Journal of Bank Marketing*, Vol. 12 No. 3, pp. 17-25.

Chan, K. (1999), "Market segmentation of green consumers in Hong Kong", *Journal of International Consumer Marketing*, Vol. 12 No. 2, pp. 7-24.

Derwall, J., Guenster, N., Bauer, R. and Koedijk, K. (2005), "The eco-efficiency premium puzzle", *Financial Analysts Journal*, Vol. 61 No. 2, pp. 51-63.

Diacon, S. and Ennew, C. (2001), "Consumer perceptions of financial risk", *The Geneva Papers on Risk and Insurance – Issues & Practice*, Vol. 26 No. 3, pp. 389-409.

Diamantopoulos, A., Schlegelmilch, B.B., Sinkovics, R.R. and Bohlen, G. (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*, Vol. 56 No. 6, pp. 465-80.

Dunfee, T.W. (2003), "Social investing: mainstream or backwater?", *Journal of Business Ethics*, Vol. 43 No. 3, pp. 247-52.

Field, A. (2005), *Discovering Statistics using SPSS*, 2nd ed., Sage, London.

Follows, S.B. and Jobber, D. (2000), "Environmentally responsible purchase behaviour: a test of a consumer model", *European Journal of Marketing*, Vol. 34 Nos 5/6, pp. 723-46.

Garbarino, E. and Johnson, M.S. (1999), "The different roles of satisfaction, trust, and commitment in customer relationships", *Journal of Marketing*, Vol. 63 No. 2, pp. 70-87.

Gardyn, R. (2003), "Eco-Friend or Foe?", *American Demographics*, Vol. 25 No. 8, pp. 12-13.

Getzner, M. and Grabner-Kräuter, S. (2004), "Consumer preferences and marketing strategies for 'green shares' specifics of the Austrian market", *International Journal of Bank Marketing*, Vol. 22 No. 4, pp. 260-79.

Hair, J.F., Babin, B.J., Money, A.H. and Samouel, P. (2003), *Essentials of Business Research Methods*, Wiley, New York, NY.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006), *Multivariate Data Analysis*, 6th ed., Prentice-Hall, Upper Saddle River, NJ.

Hale, J.F. (2002), "Seeing stars: socially responsible mutual fund performance", in Camejo, P. (Ed.), *The SRI Advantage. Why Socially Responsible Investing has Outperformed Financially*, New Society Publishers, Gabriola Island, pp. 133-44.

Hallerbach, W., Ning, H., Soppe, A. and Spronk, J. (2004), "A framework for managing a portfolio of socially responsible investments", *European Journal of Operational Research*, Vol. 153 No. 2, pp. 517-29.

Harrison, T. (1994), "Mapping customer segments for personal financial services", *International Journal of Bank Marketing*, Vol. 12 No. 8, pp. 17-25.

Kangun, N., Carlson, L. and Grove, S.J. (1991), "Environmental advertising claims: a preliminary investigation", *Journal of Public Policy & Marketing*, Vol. 10 No. 2, pp. 47-58.

Kiernan, M. (2002), "SRI: From the margins to the mainstream", in Camejo, P. (Ed.), *The SRI Advantage. Why Socially Responsible Investing has Outperformed Financially*, New Society Publishers, Gabriola Island, pp. 123-31.

Knoll, M.S. (2002), "Ethical screening in modern financial markets: the conflicting claims underlying socially responsible investment", *Business Lawyer*, Vol. 57 No. 2, pp. 681-726.

Kreander, N., Gray, R.H., Power, D.M. and Sinclair, C.D. (2005), "Evaluating the performance of ethical and non-ethical funds: a matched pair analysis", *Journal of Business Finance & Accounting*, Vol. 32 Nos 7/8, pp. 1465-93.

Lampe, M. and Gazda, G. (1995), "Green marketing in Europe and the United States: an evolving business and society interface", *International Business Review*, Vol. 4 No. 3, pp. 295-312.

Laroche, M., Bergeron, J. and Barbaro-Forleo, G. (2001), "Targeting consumers who are willing to pay more for environmentally friendly products", *Journal of Consumer Marketing*, Vol. 18 No. 6, pp. 503-20.

Lewis, A. and Mackenzie, C. (2000a), "Morals, money, ethical investing and economic psychology", *Human Relations*, Vol. 53 No. 2, pp. 179-91.

Lewis, A. and Mackenzie, C. (2000b), "Support for investor activism among UK ethical investors", *Journal of Business Ethics*, Vol. 24 No. 3, pp. 215-22.

Lewis, A. and Webley, P. (1994), "Social and ethical investing", in Lewis, A. and Wärneryd, K-E. (Eds), *Ethics and Economic Affairs*, Routledge, London, pp. 171-82.

Mackenzie, C. and Lewis, A. (1999), "Morals and markets: the case of ethical investing", *Business Ethics Quarterly*, Vol. 9 No. 3, pp. 439-52.

McLachlan, J. and Gardner, J. (2004), "A comparison of socially responsible and conventional investors", *Journal of Business Ethics*, Vol. 52 No. 1, pp. 11-25.

Michelson, G., Wailes, N., van der Laan, S. and Frost, G. (2004), "Ethical investment processes and outcomes", *Journal of Business Ethics*, Vol. 52 No. 1, pp. 1-10.

Morgan, R.M. and Hunt, S.D. (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 No. 3, pp. 20-38.

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* (forthcoming).

Nunnally, J.C. (1967), *Psychometric Theory*, McGraw-Hill, New York, NY.

Osterhus, T.L. (1997), "Pro-social consumer influence strategies: when and how do they work?", *Journal of Marketing*, Vol. 61 No. 4, pp. 16-29.

Polonsky, M.J., Bailey, J., Baker, H., Basche, C., Jepson, C. and Neath, L. (1998), "Communicating environmental information: are marketing claims on packaging misleading?", *Journal of Business Ethics*, Vol. 17 No. 3, pp. 281-94.

Rivoli, P. (1995), "Ethical aspects of investor behavior", *Journal of Business Ethics*, Vol. 14 No. 4, pp. 267-77.

Roberts, J. (1996), "Green consumers in the 1990s: profile and implications for advertising", *Journal of Business Research*, Vol. 36 No. 3, pp. 217-31.

Rosen, B.N., Sandler, D.M. and Shani, D. (1991), "Social issues and socially responsible investment behavior: a preliminary empirical investigation", *The Journal of Consumer Affairs*, Vol. 25 No. 2, pp. 221-34.

Samdahl, D. and Robertson, R. (1989), "Social determinants of environmental concern: specification and test of the model", *Environment and Behavior*, Vol. 21 No. 1, pp. 57-81.

Schröder, M. (2007), "Is there a difference? The performance characteristics of SRI equity indices", *Journal of Business Finance & Accounting*, Vol. 34 Nos 1/2, pp. 331-48.

Schueth, S. (2003), "Socially responsible investing in the United States", *Journal of Business Ethics*, Vol. 43 No. 3, pp. 189-94.

Schwepker, C. and Cornwell, B. (1991), "An examination of ecologically concerned consumers and their intention to purchase ecologically packaged products", *Journal of Public Policy & Marketing*, Vol. 10 No. 2, pp. 77-101.

Sherry, A. (2006), "Discriminant analysis in counseling psychology research", *The Counseling Psychologist*, Vol. 34 No. 5, pp. 661-83.

Singh, J. and Sirdeshmukh, D. (2000), "Agency and trust mechanisms in consumer satisfaction and loyalty judgments", *Journal of the Academy of Marketing Science*, Vol. 28 No. 1, pp. 150-67.

Social Investment Forum (2005), *2005 Report on Socially Responsible Investing Trends in the United States*, Social Investment Forum, available at: www.socialinvest.org

Social Investment Forum (2007), *2007 Report on Socially Responsible Investing Trends in the United States, Executive summary*, Social Investment Forum, available at: www.socialinvest.org

Sparkes, R. (2002), *Socially Responsible Investment: A Global Revolution*, John Wiley, New York, NY.

Speed, R. and Smith, G. (1992), "Retail financial services segmentation", *The Service Industries Journal*, Vol. 12 No. 3, pp. 368-83.

Statman, M. (2000), "Socially responsible mutual funds", *Financial Analysts Journal*, Vol. 56 No. 3, pp. 30-9.

Statman, M. (2004), "What do investors want? Expressive not only utilitarian benefits", *The Journal of Portfolio Management*, 30 September anniversary issue, pp. 153-61.

Statman, M. (2008), "Quiet conversations: the expressive nature of socially responsible investors", *Journal of Financial Planning*, Vol. 21 No. 2, pp. 40-6.

Straughan, R. and Roberts, J. (1999), "Environmental segmentation alternatives: a look at green consumer behavior in the new millennium", *Journal of Consumer Marketing*, Vol. 16 No. 6, pp. 558-75.

Van Liere, K.D. and Dunlap, R.E. (1980), "The social bases of environmental concern: a review of hypotheses, explanations and empirical evidence", *Public Opinion Quarterly*, Vol. 44 No. 2, pp. 181-97.

Waring, P. and Lewer, J. (2004), "The impact of socially responsible investment on human resource management: a conceptual framework", *Journal of Business Ethics*, Vol. 52 No. 1, pp. 99-108.

Wood, R. and Zaichkowsky, J.L. (2004), "Attitudes and trading behavior of stock market investors: a segmentation approach", *Journal of Behavioral Finance*, Vol. 5 No. 3, pp. 170-9.

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5. Falko Paetzold, Timo Busch, Marc Chesney. 2015. More than money: exploring the role of investment advisors for sustainable investing. *Annals in Social Responsibility* **1**:1, 195-223. [Abstract] [Full Text] [PDF]
6. Joakim Sandberg, Jonas Nilsson. 2015. Do ethical investors want purity or effectiveness? An exploratory study on the ethical preferences of mutual fund investors. *Journal of Financial Services Marketing* **20**, 34-45. [CrossRef]
7. Jonathan Peillex, Loredana Ureche-Rangau. 2014. Identifying the Determinants of the Decision to Create Socially Responsible Funds: An Empirical Investigation. *Journal of Business Ethics* . [CrossRef]
8. Jonas Nilsson, Johan Jansson, Sofia Isberg, Anna-Carin Nordvall. 2014. Customer satisfaction with socially responsible investing initiatives: The influence of perceived financial and non-financial quality. *Journal of Financial Services Marketing* **19**, 265-276. [CrossRef]
9. Ainul Azreen Adam, Elvia R. Shauki. 2014. Socially responsible investment in Malaysia: behavioral framework in evaluating investors' decision making process. *Journal of Cleaner Production* **80**, 224-240. [CrossRef]
10. Magnus Jansson, Joakim Sandberg, Anders Biel, Tommy Gärling. 2014. Should pension funds' fiduciary duty be extended to include social, ethical and environmental concerns? A study of beneficiaries' preferences. *Journal of Sustainable Finance & Investment* 1-17. [CrossRef]
11. Arian C.T. Borgers, Rachel A.J. Pownall. 2014. Attitudes towards socially and environmentally responsible investment. *Journal of Behavioral and Experimental Finance* **1**, 27-44. [CrossRef]
12. Bruce A Huhmann, Suzanne L Conner. 2014. Promoting business ethics through annual reports. *Journal of Financial Services Marketing* **19**, 17-28. [CrossRef]
13. Verónica Cañal-Fernández, Covadonga Caso-Pardo. 2014. Caracterización de los inversores españoles: la influencia de la inversión socialmente responsable. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad* **43**, 69-90. [CrossRef]
14. Ben JacobsenInstitutional investor support for climate change resolutions: A new challenge to capitalism or co-opted activism? 279-308. [Abstract] [Full Text] [PDF] [PDF]
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16. Joakim Sandberg. 2013. (Re-)Interpreting Fiduciary Duty to Justify Socially Responsible Investment for Pension Funds?. *Corporate Governance: An International Review* **21**:10.1111/corg.2013.21.issue-5, 436-446. [CrossRef]
17. Pekka Puustinen, Peter Maas, Heikki Karjaluoto. 2013. Development and validation of the Perceived Investment Value (PIV) scale. *Journal of Economic Psychology* **36**, 41-54. [CrossRef]

18. Taejun (David) Lee, TaiWoong Yun, Eric Haley. 2013. Effects of mutual fund advertising disclosures on investor information processing and decision-making. *Journal of Services Marketing* **27**:2, 104-117. [Abstract] [Full Text] [PDF]
19. Elena Escrig-Olmedo, María Jesús Muñoz-Torres, María Ángeles Fernández-Izquierdo. 2012. Sustainable Development and the Financial System: Society's Perceptions About Socially Responsible Investing. *Business Strategy and the Environment* n/a-n/a. [CrossRef]
20. Pekka Puustinen, Hannu Kuusela, Timo Rintamäki. 2012. Investment service providers gaining competitive advantage by focusing on consumers' varying investment goals. *Journal of Financial Services Marketing* **17**, 191-205. [CrossRef]
21. Iván Barreda-Tarrazona, Juan Carlos Matallín-Sáez, Mª Rosario Balaguer-Franch. 2011. Measuring Investors' Socially Responsible Preferences in Mutual Funds. *Journal of Business Ethics* **103**, 305-330. [CrossRef]
22. Jeroen Derwall, Kees Koedijk, Jenke Ter Horst. 2011. A tale of values-driven and profit-seeking social investors. *Journal of Banking & Finance* **35**, 2137-2147. [CrossRef]
23. Eng-Tuck Cheah, Dima Jamali, Johnnie E.V. Johnson, Ming-Chien Sung. 2011. Drivers of Corporate Social Responsibility Attitudes: The Demography of Socially Responsible Investors. *British Journal of Management* **22**:10.1111/bjom.2011.22.issue-2, 305-323. [CrossRef]
24. Joakim Sandberg. 2011. Socially Responsible Investment and Fiduciary Duty: Putting the Freshfields Report into Perspective. *Journal of Business Ethics* **101**, 143-162. [CrossRef]
25. Magnus Jansson, Anders Biel. 2011. Motives to engage in sustainable investment: a comparison between institutional and private investors. *Sustainable Development* **19**:10.1002/sd.v19.2, 135-142. [CrossRef]
26. Jonas Nilsson, Anna-Carin Nordvall, Sofia Isberg. 2010. The information search process of socially responsible investors. *Journal of Financial Services Marketing* **15**, 5-18. [CrossRef]
27. Emma Sjöström. 2010. Shareholders as Norm Entrepreneurs for Corporate Social Responsibility. *Journal of Business Ethics* **94**, 177-191. [CrossRef]
28. Anne Sunikka, Liisa Peura-Kapanen, Anu Raijas. 2010. Empirical investigation into the multi-faceted trust in the wealth management context. *International Journal of Bank Marketing* **28**:1, 65-81. [Abstract] [Full Text] [PDF]