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BEHAVIORAL INSIGHTS INTO ESG INVESTING: EXTENDING THE THEORY OF
PLANNED BEHAVIOR TO RETAIL INVESTORS SUPPRESSORS AND ENHANCERS

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Abstract

This research explores the behavioral dimensions of retail investors engagement and refrainment according to ESG investments, extending the Theory of Planned Behavior. Through qualitative interviews with eight retail investors and two asset managers, key enhancers (e.g. financial return and ethical values) as well as suppressors (trust deficits and data complexity) were identified. These findings highlight the interconnection of attitudes, subjective norms and perceived behavioral control enriched by extended variables like trust, education and standardization. Addressing barriers and fostering informed decision-making, this research provides actionable implications for stakeholders to bridge the intention-behavior gap and enhance ESG investments among retail investors.

Keywords: ESG, Theory of Planned Behavior, behavioral investing, Retail Investors

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1 Introduction

The urgency of environmental, social and governance (ESG) challenges rises around the world. In the last 50 years, the number of disasters has increased by a factor of five (United Nations Climate Change, 2021). Lastly seen with the floods in Spain, where 95 people died, or the Hurricane Milton in Florida which approximately causes damage about \$175 billion (CNBC , 2024) (Reuters, 2024). Costs for adaptation and mitigation due to climate change are rising and bringing up concerns about how to finance the future.

According to the United Nations, the financial gap for achieving the sustainable development goals (SDGs) is about \$4 trillion (United Nations, 2024). Financial flows for instance for climate change mitigation need to be raised three times to limit warming to 2°C or below and therefore achieve the Paris aligned agreement targets (United Nations Development Program, 2023). Nevertheless, recent data provide that the pullback from ESG funds, which were prominent in the last months in the US market, also reached the European market. In April 2024 the outflows of ESG funds in Europe were approximately \$1.9 billion (Financial Times, 2024). The increasing urgency of tackling climate change on a global strategy is making the funding of sustainable development by private investors more important than ever. However, current flows from private investment only reach 1.6% of all the adaptation funding (World Economic Forum, 2022). A study by the ECB shows that according to national accounts, the net wealth of private households in the eurozone has increased to €13.7 trillion, which remarks an increase of 29%, in the last five years (European Central Bank, 2024). Additionally, research indicates that the median private household predominantly holds its assets in bank accounts rather than investing in financial instruments. The study by the European fund and asset management association (EFAMA) underlines the disparities in saving allocation across the European Union. Eight of the EU Member States private households allocate over 70% of their wealth into bank deposits (European Fund and Asset Management Association, 2024). Therefore, it is necessary to understand the

reasons why individuals leave their money in private bank accounts instead of investing in funds whereby on one hand return can be generated and on the other hand minimize the huge finance gap to tackle climate change. According to this, the following research question comes up: “*What are the key behavioural factors influencing retail investors’ decisions to engage and refrain from ESG investing, and how do these factors act as enhancers and suppressors of investment intention?*”. In the following section, the research gap and therefore the importance of this study will be presented.

2 Literature Review

Understanding the behavior of retail investors about ESG investments is crucial to close the remaining huge finance gap to achieve the SDG goals. Yet, significant gaps remain in literature. A systematic literature review emphasizes the need to understand more about private individuals. Actual studies mostly explore insights of high-net-worth individuals or institutional investors (Aulia, Afiff, Hati, & Gayatri, 2024). Retail Investors (RI) may have different attitudes towards ESG factors compared to institutional investors deepens the need to explore more details on the retail side (Carroux, Busch, & Paetzold, 2022). A global survey by Amel-Zadeh and Serafeim points out challenges related to ESG data's comparability and quantification, primarily focusing on institutional investors. This further emphasizes the need for targeted research on individual investors, who may have a completely different decision-making process (Amel-Zadeh & Serafeim, 2018).

Several studies have already covered the topic of ESG Investing in combination with the theory of planned behavior (TPB). Most of these studies were conducted with a quantitative research approach which provides results for given variables but does not leave any space for a deeper understanding of current barriers and gaps. For instance, Rathee and Aggarwal (2022) explored the understanding of Impact Intention based on the TPB. Through a questionnaire, they collected information from 338 Indian investors. Another example of a quantitative study using the TPB

approach was developed by Zhang et al. (2024). The study investigated the relationship between RIs from China and their perception of corporate ESG performance based on the TPB. Both studies provide insights into understanding different investors' behavior but are limited in their geographical focus. Also, they are focusing solely on the TPB model. Due to the mentioned outflows, it is crucial to widen the theoretical understanding of this model and provide space for a deeper understanding of enhancers and suppressors faced by RIs.

Additionally, Paetzold and Busch explored the TPB in a qualitative surrounding. They focused on high-net-worth individuals to understand their decision-making process towards sustainable investing. The limitation of this study is mentioned with the focus of a powerful few. Individuals with less experience in investing might face higher barriers. Moreover, they might be driven by different attributes mentioned in the TPB model (Paetzold & Busch, 2014). Furthermore, Park and Oh investigated through the UTAUT framework, how individual investors incorporate ESG information into their decision-making process. They underline the need for a deeper understanding of individual investors according to ESG investments and the current literature gap for retail investors (Park & Oh, 2022). Lastly, it is necessary to understand the actual challenges of individuals. A study by Seifert et. al. (2024) underlines the need to explore deeper which data or method of presentation could increase the willingness to invest in topics of ESG. Solely focusing on increasing intention would not be enough. It should also investigate what investors restrain them from investing.

In summary, the actual literature reveals an important gap for understanding the behavior and challenges regarding ESG-Investments. Reasoned by the massive outflows, described in the Introduction, its necessary to understand factors that might differ over time to address retail investors correctly. The changing behavior of investors is a special thing thereby. While most of the literature dealt with ESG investing when it was an emerging topic, this study looks at behavior towards ESG investing at a time of higher outflows than inflows.

3 Theoretical Background

In 1985, Icek Ajzen introduced the theory of planned behavior (TPB). It describes the linkage of behavioral intention with cognitive factors. Shaped by three core components, attitude toward the behavior, subjective norms, and perceived behavior control. The behavioral intention builds a predictor for the actual behavior (Ajzen I. , 1991). The TPB is a development of the Theory of Reasoned Action (TRA) also designed by Ajzen and Fischbein (1975).

According to Ajzen, **attitude (AT)** is a key variable of behavioural intension and includes two components. Attitude towards behaviour is defined as the degree to which a person has a (un)-favourable evaluation of behaviour in question (Ajzen I. , 1991). Attitude not only shapes intentions but also influences how individuals perceive and interpret information related to the behaviour. The affective attitude describes the feelings of emotional responses about a behavioural intention (Ajzen I. , 1991). The second component is the instrumental attitude. It evaluates the perceived outcomes associated with the personal behaviour (Ajzen I. , 1991). Attitude had in several studies the highest impact on investors and is therefore important to explore (Rathee & Aggarwal, 2022).

Subjective Norms (SN) represent perceived social pressure to perform or not perform regarding a specific behaviour (Ajzen I. , 1991). Thereby it is asked how important the role of others influence their lives. The relevance of this topic is evoked from different studies. While some find statistically significance that subjective norms are relevant in the decision-making process (Johannes Gamel, Bauer, Decker, & Menrad, 2022). A meta-analytical review of the TPB states that subjective norms tend to be a weak predictor of intensions (Armitage & Conner, 2010).

Perceived Behaviour (PB) focuses on the difficulty or ease of executing the behaviour. This encompasses external factors like resource or information accessibility as well as internal factors such as education and knowledge. It also sets a light on potential barriers and facilitators (Ajzen I. , 2002). A potential barrier to ESG investing could be the access for information as well as the

lack of understanding. During the introduction, actual knowledge toward conventional as well as ESG investing is asked.

Adding **extended variables (EV)** can be beneficial to the exploration of the target behaviour (Ajzen I. , 1991). One of the extensions is **trust and reliability** of data that is available for retail investors. Nilsson (2008) was one of the first who researched the level of trust of individuals towards ESG Investments. According to him, this pro-social influence is an important aspect to investigate the consumer behaviour toward ESG Investments. False promises in the past are prevalent among customers. This low confidence level of trust can lead to a rejection of ESG investments and therefore bring up an emerging challenge for rebuilding trust (Nilsson J. , 2008).

Perceived financial return is a key metric when investing in assets and decide whether to allocate it. There is still an ongoing debate whether ESG funds outperform conventional funds according to their financial performance. While Khan (2019) found evidence that ESG funds provide a lower risk return rate and outperform financially, Jain et al. (2019) prove that ESG funds perform almost identical compared to conventional funds adjusted by risk. Therefore, the perceived financial return according to ESG investments was questioned to understand more about the massive outflows in ESG funds and if financial return is a reason.

Additionally, the **sustainable consumption** behaviour was questioned to understand reasons for considering ESG funds or not. Several studies have seen an impact of sustainable consumption towards the investment decision of ESG investments (Gamel, Bauer, Decker, & Menard, 2022).

4 Methodology

For this study, a qualitative research approach was used. The goal for this research is to capture the full complexity of retail investors' intention and behavior toward ESG Investing as well as their enhancers and suppressors. Interviews provide an effective and accessible way to explore the world of individuals by capturing their knowledge, opinions and perspectives in detail (Clarke & Braun, 2016). A quantitative research approach would isolate and narrow the variables of this

analysis and understanding (Meyer, Röser, & Zureck, 2024). Moreover, the literature remains a gap of the understanding of retail investors, which was described in the literature review, and therefore a valid basis for a qualitative review and broadening is missing. Deeper insights of consumers' decision-making process will be result through the extension of the TPB and its three main components AT, SN and PBC. The qualitative approach leads to a deeper reasoning for certain behaviors or withholding.

4.1 Participants

Presenting insight full research requires a selected sample of participants which need to meet several criteria. First, all participants need to actively invest in stocks or funds for a minimum of one year. The basic concept and difference of ESG investing was also a prerequisite. Individuals who are investing in ESG are not a homogenous group that can be filtered by age groups or education (Nilsson J. , 2019). Therefore, the study covers a range of age groups, educational backgrounds as well as different investment strategies to secure broad responses. Overall, eleven interviews were conducted. The first interview was done as a test interview and is therefore not covered in the results. This test interview gave the opportunity to review and adapt the questionnaire based on the depth of the responses. The heterogeneity of the group was secured through different variables. First, the gender distribution was tried to be even. The age range of interviewees went from 26 years to 42 years. Educational wise were people interviewed with an undergraduate, postgraduate as well as a doctoral degree. None of the individuals invest less than 500€ per month, presenting the high involvement. Most of the participants follow a long-term investment strategy with a risk-averse profile. While some participants stated to invest long- as well as short-term within a mixed risk portfolio. The least experience as a retail investor for conventional assets is provided by two years, for ESG investments it's the same. With 25 years of knowledge, the highest experience is covered for conventional assets. Contrary the highest knowledge of ESG assets was observed with ten years of experience. A detailed overview of the

participants can be found in the [Appendix 1](#). The interviewees were individually requested and randomly selected. The retail Investors (RI_1 – RI_8) were found through different online appeals as well as connections by third parties that someone is invested as a retailer. The recruitment of additional participants was concluded due to rich insight that had already been gained. Answers started to repeat and therefore the given results were stated as rich enough. Even though it's clear that the number of participants could be infinite to include the complexity and variability of human experiences (Saunders, Sim, & Kingstone, 2018). Additionally, two professionals were recruited to validate and gain a deeper understanding. The two asset managers (AM_1 and AM_2) are working for retail funds and were found through LinkedIn research. Several people were asked, but AM_1 responded earliest. The second one was requested according to a professional connection.

4.2 Data Collection

In the first step, a semi-structured interview guide was established. Before starting with the guide, background knowledge of the topic was built to understand actual research gaps. This involves planning and developing interview questions previously (Bryman, 2016). The Interviews were organized in the period from the 5th October until the 1st November and carried out via Microsoft Teams. Semi-structured interviews were conducted. A semi-structured interview guide uses prepared questions based on previously identified themes, along with probing to include detailed responses (Qu & Dumay, 2011). After each Interview, patterns and findings were considered before conducting the next. This flexible approach allowed for the identification of emerging concepts through the research process (Yin, 2003). Through these interviews, aspects of the participants' behavior through their ESG investing behavior and opinion were explored. Previously to the scheduled interview, a piloted Interview was conducted to check the accuracy of the questions as well as the length of the interview. The piloted Interview can be seen in the Participation Table under the acronym *Test_1*. Each interview started with a request of consent to

record and use the content anonymously for research purposes without providing any personal details. Secondly, it was asked if there are any remaining questions regarding the information previously shared. Clearing all remaining doubts, the interview section was started. The first part of this Interview was about general aspects. Attributes like age, a short job description, highest level of education, investment strategy and monthly savings rate as well as their years of experience as a retail investor covering conventional investments as well as ESG investing were covered. This part was done to secure a heterogeneous participation group and cover the base of the perceived behavioral control. The main part contains the subject of TPB. Moreover, this study went beyond the aspects of the TPB to understand how retail investors get enhanced and suppressed. At the end of the interview, each participant was asked if any information or doubts was not yet covered. This should ensure that all information and thoughts are encompassed (Magnusson & Marecek, 2015). The detailed interview guide can be found in the [Appendix 2](#). Asking all the questions as an open-ended question allowed respondents a higher degree of freedom in their answers and secures to avoid narrowed answers (Hansen & Świdarska, 2024). Additionally, a short follow-up summary after each interview was developed. Documenting the condition, context, as well as possible disruptions, were summarized to ensure transparency and credibility in this study (Creswell, 2013). An overview of the follow-up summary can be found in the [Appendix 3](#).

4.3 Data analysis

At the end of the Interview stage, the content analysis was developed. After the transcription, which was done via Microsoft Teams directly after each interview, the accuracy was checked. This check was with the support of an Artificial Intelligence (AI) Program. According to Zhang et al. an AI program has the possibility to increase efficiency in qualitative research (2024). Additionally, two interviews were conducted in German language and therefore were translated by the AI program. The qualitative content analysis was developed according to Maying (2010).

Due to the research model and the usage of the TPB model, deductive and inductive coding was used. In a first step, deductive codes were developed under thematic headings with the usage of the interview guide. The deductive codes were mainly used for the TPB model due to the clear questions based on the model. Following further exploration of this topic, an extension of the model was done. Additional information that expanded prior categories was included inductively to the coding system. A summary of all inductive and deductive codes as well as their sub-codes if necessary and an explanation of them can be found in [Appendix 4](#).

5 Results

This section provides the main findings extracted from the discussions. The initial **Attitude** analysis reveals that RIs view ESG investing to uphold ethical principles, with many citing a strong desire to avoid sectors perceived as socially or environmentally harmful. This motivation aligns with the attitude component in TPB, where positive beliefs about the societal impact of ESG investing drive favorable evaluations. For instance, RI_1 indicated a values-based approach, saying, *“I don’t want to feel guilty for investing in regular funds, so I choose ESG funds instead... Its emotional benefit”*. Similarly seen by RI_6: *“I avoid oil companies...and sectors that don’t harm the environment”*. These responses show that for RIs, ESG investing is often associated with personal ethical standards, reinforcing positive attitudes through strong moral convictions. AMs supported these ethical motivations, with AM_1 acknowledged that *“many invest in sustainable funds for emotional reasons...they want to feel good”*. Such statements indicate that AMs recognize and reinforce RIs’ ethical motivations, which strengthens the attitude component according to TPB. While financial performance is mostly tracked during the investment timeline, ESG performance is not tracked after the initial screening phase by RI. RI_7 provided insight into this process, explaining, *“I screen before investing but don’t follow up on ESG scores afterward.”* also seen by RI_1.

Next to personal values that drive RIs to investing they perceive ESG investments as a **catalysator** in the long run and will bring various benefits. RI_1 expresses the transition as a key factor “*transition to sustainable business models will be more successful and therefore less risky*”. Underlined by RI_5 states that “*it is smart to consider ESG now because these standards will likely grow in importance*”. Thereby, long-term benefits are perceived by RIs. While ethics motivate RIs toward ESG investments, their commitment is also tempered by financial considerations, called affective attitude. RI_2, for example, expressed willingness to prioritize ESG over maximum returns, stating, “*I would accept a lower return for ESG strategies.*” This belief in the ethical benefit of ESG, even at the expense of returns, shows that positive cognitive attitudes can partially outweigh financial concerns. In contrast, RI_8 highlighted a stronger focus on financial outcomes, noting, “*Financial returns are more important.*” This perspective suggests a conditional attitude where financial viability remains crucial, illustrating TPB’s notion that attitudes toward ESG investing are influenced by both altruistic and pragmatic beliefs. For RIs like RI_8, the strength of their attitude toward ESG may depend on whether these investments can also meet their financial goals. AM_2 observed that “*financial returns for our clients are our top priority, with sustainability as a secondary consideration,*” reinforcing the notion that financial pragmatism often moderates ethical inclinations. Nevertheless, financial performance was also mentioned in a later stage as a suppressor of investing in ESG products. Mentioning the exclusion of defense in ESG as an important aspect that financial performance is weaker. RI_3 expressed “*profits in excluded sectors like defense might be attracting investors away from ESG*”. Underlined by RI_5 who states “*Investors see higher returns in conventional funds and switch*”. Overall, financial performance is seen as an enhancer in the long run. However, weak financial performance is also perceived as a suppressor pushing Investors intention to invest in ESG away. Additionally, **extended attitude** categories were found in the Interviews. **Trust** in ESG investments emerges as a pivotal factor that can suppress RIs’ intention to invest sustainable. RIs

frequently voiced concerns about the authenticity of ESG claim. RI_5 articulated this skepticism, saying, *“some funds appear greener than they actually are.”* AMs also noted the limitations in ESG compliance. AM_2 admitted, *“With all ETFs labeled as ESG, I’m not entirely confident they’re 100% ESG-compliant.”* This acknowledgment from AMs reinforces RIs’ mistrust, as even industry professionals’ question ESG labels.

Personal Consumption habits can shape RIs attitudes toward ESG Investment intention. For some RIs, investing in ESG funds aligns naturally with broader lifestyle choices centered around sustainability. RI_1 stated, *“My consumption is largely driven by sustainability,”*. But also, the knowledge of unsustainable practices due to ESG research can stop sustainable consumption seen by RI_6. This aspect is supported by AM_2: *“I think customers who value sustainability in their private lives tend to carry that over into their finances”*. However, not all RIs experience this alignment in their daily lives. RI_3 admitted, *“As for sustainability...I don’t prioritize it as much as I probably should,”* indicating a disconnect between personal values and consumption behavior. RI_8 explained, *“I value sustainability, but in practice, I often don’t focus on it.”*

Many RIs view ESG investing to make a long-term impact, driven by **legacy-oriented motivations** and considerations for future generations. These forward-looking attitudes act as strong enhancers for positive intentions within the TPB framework, as they are based on favorable long-term beliefs. RI_6 expressed a legacy-oriented motivation, saying, *“to secure the future of my children,”* which reflects a desire to contribute to sustainability beyond immediate financial gain. AM_2 adds that RIs are often guided by *“the bigger picture.”* In TPB, these long-term considerations reinforce RIs’ positive attitudes toward ESG by framing sustainable investing as a legacy choice. When RIs perceive ESG investments to create lasting impact, their attitudes become more favorable, reinforcing their behavioral intentions.

In the Theory of Planned Behavior, **social norms** refer to the perceived social pressures to engage in or refrain from a behavior. For RIs in ESG investing, social norms manifest in their interactions

with peers, family, and trusted advisors. The extent to which RIs involve their peers or social networks in investment decisions varies widely, highlighting the nuanced role of social norms in shaping ESG investment behavior. Several RIs demonstrated a preference for independent decision-making, limiting the influence of external opinions. For example, RI_1 stated, *“I make decisions on my own”* while RI_6 similarly remarked, *“I tend to keep it to myself.”* These responses suggest a low level of reliance on social networks for ESG investment decisions, indicating that subjective norms exert minimal pressure on these investors. However, other RIs revealed a selective engagement with trusted individuals. RI_2 noted, *“Only with one or two people who have similar expertise,”* while RI_5 shared, *“[I discuss investments with] who I trust.”* This selective sharing implies that social norms are not absent but are constrained to a narrow circle of knowledgeable or trusted individuals. RI_8 provided an example of how broader social trends can influence investment behavior, reflecting, *“Yes, crypto was a notable example, as everyone was influenced to invest in early days, though it wasn’t a sustainable choice. I also discuss investments like solar stocks with trusted friends.”* This response highlights the dual role of social norms: while they can promote engagement in unsustainable trends (e.g., crypto), they can also encourage positive, sustainability-aligned investments (e.g., solar stocks). AMs provided additional context, observing that social pressure related to sustainability often extends beyond financial decisions. AM_2 noted, *“I think the pressure is more on private behavior, like choosing sustainable travel.”* This comment suggests that while social norms may not strongly dictate ESG investing decisions, they influence broader sustainability-related behaviors, which could indirectly encourage RIs to consider ESG investments. Social norms also influence how RIs share their investment decisions and experiences with others, which can reinforce or challenge their behavior. Several RIs reported sharing advice selectively, often with close family members or friends. For example, RI_1 noted, *“I recommend my chosen funds to my sister and boyfriend.”* This indicates a willingness to share positive experiences within a trusted social

circle, reinforcing subjective norms within these relationships. While RI_4 is more excited to share wins, RI_5 highlighted the value of sharing both positive and negative experiences, explaining, *“I think both. Sharing negative experiences helps others avoid similar mistakes.”* This willingness to discuss failures as well as successes indicates that social norms in these interactions are not purely supportive but also serve a corrective function, helping peers navigate the complexities of ESG investing. RI_8 provided a concrete example of how family involvement influences investment decisions, stating, *“For instance, I’m interested in solar energy because my family has been involved with it, so I’ve invested in solar companies and hydrogen stocks.”* This demonstrates how social norms can act as an enhancer, where family ethical values and interests shape investment choices in alignment with sustainability goals. In these cases, subjective norms may reinforce investment behaviors by providing validation or additional information from peers who are perceived as credible or transmitting values.

Perceived Behavioral Control (PBC) refers to an individual’s perceived ability to perform a behavior, considering internal capabilities and external constraints. Access to and the quality of **information** are key determinants of RIs’ perceived behavioral control. RIs commonly rely on publicly available information. RI_1 and RI_4 described their process with simple Google research. These responses illustrate a basic and unsystematic approach to information gathering, often constrained by the lack of accessible, high-quality ESG data. Other RIs highlighted their attempts to deepen their understanding but admitted limitations. RI_6 mentioned, *“I consider the company’s background, location, history, and overall stability,”* reflecting a more detailed approach to data collection. RI_8, however, noted, *“For sustainable-labeled products, I do check what’s inside but not in great detail,”* signaling that even motivated investors face challenges in thoroughly evaluating ESG data. These fragmented approaches limit the perceived ease and efficacy of evaluating ESG investments, thereby reducing RIs’ overall control beliefs. AMs, in contrast, access structured and curated information, which significantly enhances their perceived

control. AM_2 stated, *“We rely heavily on data providers and look at exclusion criteria.”* The use of professional data sources demonstrates the institutional advantage AMs hold over RIs, creating a notable disparity in confidence and capability.

ESG KPIs and Ratings can be an essential **resource** to evaluate investments, yet their focus appears to be short-lived. While KPIs are intended to serve as a resource for evaluating ESG performance, many RIs criticized their vagueness and lack of comparability, which undermines their confidence in using these metrics effectively. RI_3 echoed this sentiment, remarking, *“Current ratings feel vague”*. RI_6 underlines the issue succinctly: *“I know from experience there’s a lot of inconsistency in ESG ratings, so I choose not to rely on them”*. In contrast, AMs appeared more confident in their use of KPIs. AM_2 explained, *“We use ESG ratings from data providers”* highlighting the value of professional control beliefs. The disparity between RIs’ and AMs’ resource access aligns with TPB’s framework, where perceived facilitation—defined as access to tools and resources—significantly impacts an individual’s intention to perform a behavior. For RI_6, a solution to this actual barrier *“If there were just a few trusted labels with clear criteria, that would be ideal”* signaling too many labels without clear guidance to trust and understand.

The **Extended PBC** analysis delves deeper into the findings, identifying factors that enhance or suppress RIs’ perceived control, focusing on data transparency, education, and standardization. These barriers represent external constraints that weaken RIs’ control beliefs, making ESG investing appear more difficult and inaccessible. An often-mentioned barrier is the lack of **transparency and standardization**. RI_5 states *“Regulations should provide clearer guidelines. It’s sometimes hard to interpret in practice”*. Supported by RI_8 *“Transparency—many ETF include companies that are too small or risky, which discourages a complete ESG-focused strategy”*. The lack of standardization in ESG reporting and metrics was identified as an additional suppressor of RIs’ perceived behavioral control. RI_4 proposed, *“It would be great for peer*

comparisons to have a consistent KPI across companies” while RI_3 wishes for “Regulators *should set a baseline*”. These comments highlight the role of standardized reporting in reducing complexity and enhancing control beliefs. Also, the professional side is seeking more guidance mentioned by AM_1 “*Standardized reporting would make it easier to compare and understand*”. AM_2 advocated for global standardization, stating, “*I’d like global standardization, like a social and environmental taxonomy with comparable data.*” By reducing external constraints through standardized metrics, regulators and industry bodies could significantly enhance RIs’ perceived behavioral control, encouraging greater participation in ESG investing. The lack of perceived behavior control can act as a suppressor if the regulator and AMs do not attract this problem.

Additionally, the **lack of experience** and high level of understanding which is essential to invest reliably was mentioned. RI_4 expressed frustration with the current state of ESG data, stating, “*I wish it were easier to differentiate these companies. ESG criteria and KPIs can be challenging to understand.*”. Education emerged as a crucial enhancer of perceived behavioral control. RI_1 suggested that “*if people understood that sustainable companies are often more successful in the long term, they might choose ESG investments more readily.*” This statement underscores the importance of disseminating knowledge about the financial and societal benefits of ESG investing to improve control beliefs. RI_3 highlighted the broader issue of financial literacy, stating, “*In places like Portugal, there’s limited financial education—early education on saving and investing would benefit society as a whole.*” AM_2 agreed, emphasizing, “*I believe education is crucial—while those with experience can make more independent, informed choices.*”. RI_2 includes a comparison of the US-System “*In America, people are more familiar with investing due to the education system and culture*”. Seeking earlier education is mentioned. Targeted educational efforts addressing both financial literacy and ESG-specific knowledge would significantly enhance RIs’ perceived control by equipping them with the tools and confidence needed to navigate ESG investing.

6 Discussion

In recent years, the financial landscape has undergone a significant shift as ESG investing has gained traction among a broad spectrum of investors. This paradigm shift is driven by growing awareness of global challenges, including climate change, social inequality, and corporate accountability. However, recent macroeconomic events such as the Ukraine war and rising inflation have led to significant outflows from ESG investments, highlighting the volatility and changing interests in this area (Financial Times, 2024). Understanding why RIs invest in or divest from ESG products has become crucial to comprehend the evolving dynamics of sustainable finance and closing the financing gap in ESG. This chapter delves into these dynamics through the lens of the TPB, extended to include critical variables. By exploring how attitudes, perceived behavioral control and subjective norms influence ESG intentions and behaviors in comparison to existing literature, it provides a comprehensive understanding of the drivers and suppressors at play. This discussion also integrates findings from our data analysis, connecting quantitative insights with qualitative interpretations.

Through this exploration, the chapter highlights the unique contributions of this study in expanding the TPB framework and offers actionable insights for addressing key challenges, such as greenwashing, inconsistent ESG data, and the impact of macroeconomic factors. It emphasizes the importance of fostering trust, standardizing metrics, and empowering RIs through education, ultimately underscoring their role in driving sustainable investment practices. Furthermore, it outlines future outlooks on what should change and who can contribute to these changes.

Attitudes emerged as a pivotal determinant of ESG investment behaviors. Many RIs viewed ESG investing as a direct extension of their ethical values, focusing on avoiding harmful sectors and supporting sustainable development. This aligns with Nilsson's (2008) findings on pro-social attitudes and with more recent studies indicating a persistent interest in ethical investing despite market fluctuations (Riedl & Smeets, 2017). However, the current study goes further by revealing

the interplay of emotional and rational motivations. Notably, the concept of “warm glow” played a significant role, as many RIs expressed satisfaction derived from contributing to societal well-being (Gutsche, Zwergel, Klein, & Schroeder, 2023). However, the study identified **trust** as a critical suppressor of positive attitudes. Unlike earlier studies that treated attitudes as static predictors, this research demonstrated how skepticism—stemming from concerns about greenwashing and inconsistent ESG metrics—diminished positive perceptions, even among ethically motivated investors. This adds depth to the findings of Amel-Zadeh and Serafeim (2018) by illustrating how trust mediates the relationship between ethical motivations and behavioral intentions. Trust deficits were exacerbated by high-profile incidents, such as the DWS Group scandal, where allegations of ESG misrepresentation undermined investor confidence (Bloomberg, 2023). AMs must actively work to regain this trust by enhancing transparency and accountability. Studies like Sievänen et al. (2013) have previously found trust to be a non-significant factor; however, the recent surge in ESG-related controversies suggests that trust has become increasingly significant, reflecting a shift in investor priorities.

Financial performance emerged in this study as both an enhancer and a suppressor of attitudes, reflecting a complex dynamic. Many RIs expected ESG investments to yield long-term returns comparable to or exceeding those of traditional investments, supporting findings by Carroux et al. (2022) and Friede et al. (2015), who found that ESG integration does not negatively impact financial performance and can even enhance it. However, in the short term, RIs anticipated underperformance, which dampened enthusiasm. This aligns with the findings of Trinks and Scholtens (2017), who noted that while ESG portfolios may underperform in volatile markets, they perform robustly over longer horizons. The dual nature of financial performance demonstrates the nuanced relationship between ethical aspirations and pragmatic concerns, highlighting a tension that previous TPB applications have not fully explored. This study enriches the framework by revealing how short- and long-term performance expectations dynamically

influence attitudes and therefore intentions to behave. The impact of macroeconomic factors, such as the Ukraine war and inflation, has intensified this tension, prompting RIs to reassess their investment strategies (Morningstar, 2024). Future outlooks should consider enhancing market stability to support sustained ESG investments.

The **legacy-oriented** dimension of attitudes also emerged as a unique enhancer, with many RIs motivated by the desire to secure a sustainable future for their children. This intergenerational perspective broadens TPB's applicability by linking attitudes to long-term societal impact, offering a novel angle that bridges personal and collective goals. Studies by Boffo and Patalano (2020) support this finding, indicating that intergenerational equity is becoming a significant driver in sustainable investing.

Social norms played a subtler but significant role in shaping ESG investment intentions. Literature presents mixed findings on the influence of subjective norms; some studies, like East (1993), indicate a strong impact, while others, such as Beck and Ajzen (1991), find a weaker association. In this study, RIs often relied on advice from trusted individuals within close networks, which reinforced their decisions and aligned them with social expectations. This finding is consistent with Armitage and Conner (2010), who highlighted the role of subjective norms in small, trusted groups. However, the study adds nuance by identifying advice-sharing as both an enhancer and a corrective mechanism. By discussing successes and failures, RIs helped their peers navigate the complexities of ESG investing, demonstrating how subjective norms can act as informal educational tools. This communal advice-sharing neither serves as a clear enhancer nor suppressor but represents a dynamic interplay of influences.

Broader societal trends, such as the hype around cryptocurrencies, demonstrated the dual nature of subjective norms. While peer influence often enhanced ESG intentions, misaligned societal norms occasionally suppressed them, illustrating the dynamic interplay between individual and collective behaviors. The concept of warm glow also intersected with subjective norms, as

emotional satisfaction from ESG investments reinforced positive social reinforcement within trusted networks. Implications for practice involve leveraging these peer networks to disseminate accurate information and promote sustainable investment practices. Financial institutions can facilitate community-building initiatives that encourage advice-sharing among RIs.

Perceived Behavior Control was found to significantly influence both behavioral intentions and actions, yet it was often constrained by systemic barriers such as **fragmented information, lack of standardized metrics, and knowledge gaps**. Many RIs relied on unsystematic approaches, such as basic online searches or company sustainability reports, reflecting a lack of accessible and reliable ESG information. These findings align with Gibson et al. (2021), who identified data complexity as a key obstacle, and with Bender et al. (2018), who noted that the abundance of ESG data can overwhelm investors, undermining confidence in decision-making.

The **lack of transparency** and comparable data reinforces the need for regulatory frameworks like the European Securities and Markets Authority (ESMA) guidelines and the Corporate Sustainability Reporting Directive (CSRD). By 2025, the ESMA guidelines will require all ESG-labeled products to meet standardized criteria, potentially addressing trust gaps (ESMA, 2024). The CSRD aims to improve transparency and comparability by mandating comprehensive sustainability reporting from companies (European Commission, 2023). Future research should investigate how these regulations influence the investment process and whether they enhance trust sufficiently to bolster positive attitudes. The ESMA guidelines and the CSRD, which will enforce standardized ESG criteria by 2025, were identified as potential solutions. **Standardization** is expected to be a transformative enhancer of PBC, as it simplifies decision-making, reduces uncertainty, and rebuilds trust. Both RIs and AMs highlighted the importance of consistent KPIs, with AMs demonstrating significantly higher perceived control due to their access to curated data and professional tools. This institutional advantage underscores the need for democratizing access to standardized ESG metrics to empower individual investors.

Moreover, government and non-governmental organizations (NGOs) have a role to play in establishing and promoting ESG labels and KPIs. Currently, the proliferation of various ESG standards and ratings creates confusion (Berg, Kölbel, & Rigobon, 2022). By consolidating these into a cohesive framework, stakeholders can enhance PBC among RIs.

Education emerged as another critical enhancer, with ESG-specific financial literacy addressing knowledge gaps and improving confidence. While earlier studies emphasized general financial literacy, this research demonstrated the unique value of targeted education in navigating ESG complexities. By understanding the long-term benefits of ESG investments, RIs were better equipped to make informed decisions, bridging the intention-behavior gap. As suggested by Lusardi and Mitchell (2013) improving financial literacy can lead to better financial decisions. Therefore, it should become a collective task for educational institutions, financial advisors, and policymakers to eliminate education barriers.

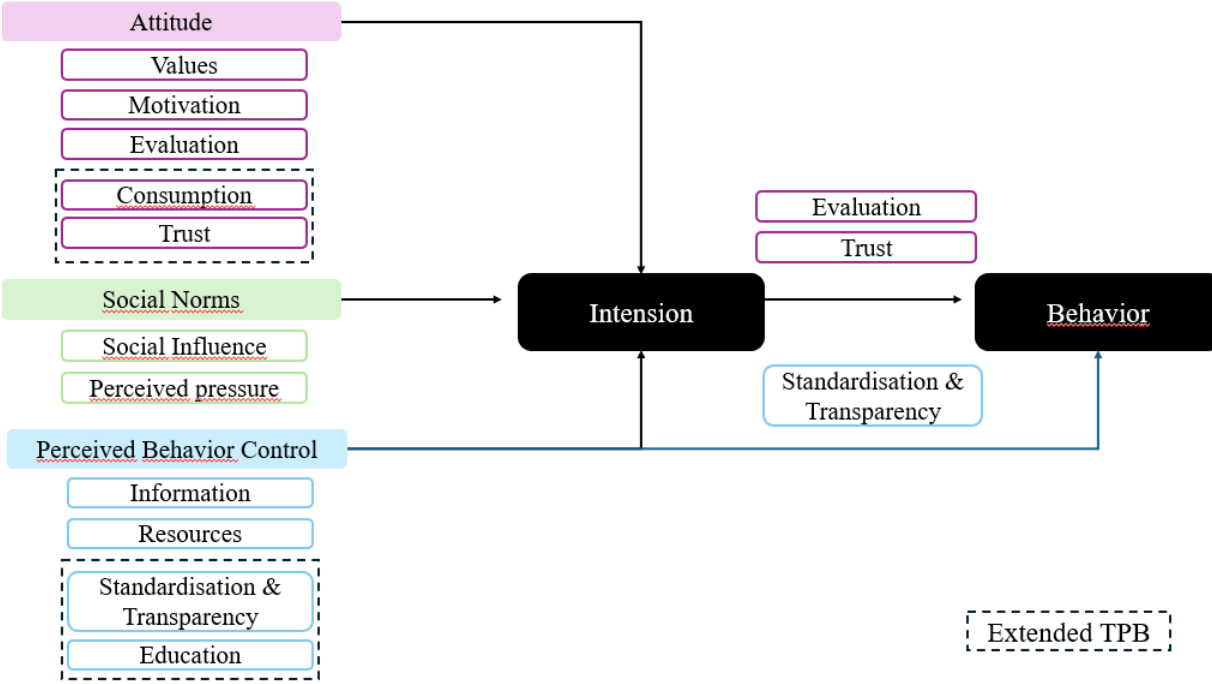


Figure 1: Extension of the TPB according to the findings of this study

7 Conclusion

This research offers a nuanced understanding of ESG investment behaviors among RIs by integrating extended variables into the TPB framework. Ethical motivations, financial performance, trust, and emotional factors such as warm glow significantly shaped attitudes, while barriers like data fragmentation and lack of transparency constrained perceived behavioral control. Subjective norms, though less prominent, were influenced by mixed social cues and advice-sharing, adding a communal dimension to decision-making.

This study makes several contributions to the TPB framework:

1. **Trust:** Identified as a cross-cutting factor, trust influenced attitudes, PBC, and SN, highlighting its central role in shaping ESG intentions and bridging the gap between values and actions. The evolving significance of trust, especially considering recent ESG controversies, suggests that TPB models should incorporate trust as a dynamic variable.
2. **Standardization and Transparency:** Demonstrated as critical enhancers of PBC, these regulatory interventions can simplify decision-making, reduce uncertainty, and rebuild confidence. The upcoming ESMA guidelines and CSRD represent significant steps toward achieving these goals.
3. **Financial Performance:** The dual influence of long-term expectations and short-term trade-offs provides a nuanced understanding of how RIs balance ethical motivations with pragmatic concerns. Incorporating market volatility and macroeconomic factors into TPB models can enhance their predictive power.
4. **Warm Glow:** Emotional satisfaction emerged as a key motivator, cutting across attitudes and subjective norms to reinforce behavioral intentions. This underscores the importance of affective components in investment decisions, suggesting that TPB should account for emotional as well as rational factors.

5. **Advice-Sharing:** Positioned as an extension of subjective norms, advice-sharing within trusted networks provided a communal and corrective mechanism for ESG decision-making. Recognizing the role of social learning can enrich TPB applications in financial contexts.

7.1 Implications

These insights validate and expand the TPB framework, offering a richer, more dynamic model for understanding and improving ESG investment behaviors. This study brings up implications for the private sector, like asset managers as well as the government side. While education and understanding emerged as a crucial topic for RIs to behave and invest in ESG assets. To address these challenges, several actions are recommended:

- **Regulatory Bodies:** Implement and enforce standardization and transparency through frameworks like ESMA guidelines and CSRD to reduce information asymmetry and rebuild trust.
- **Asset Managers and Financial Institutions:** Enhance transparency in ESG reporting, avoid greenwashing, and actively engage in regaining investor trust. Providing accessible ESG data and tools can empower RIs.
- **Educational Institutions and NGOs:** Develop targeted educational programs to improve ESG-specific financial literacy among RIs, helping them navigate the complexities of sustainable investing.
- **Retail Investors:** Engage in peer networks for advice-sharing, while also critically evaluating information sources to make informed decisions.

Future outlooks should consider the impact of macroeconomic factors on ESG investing. The recent shift away from ESG due to geopolitical tensions and economic instability underscores the need for resilient investment strategies. Stakeholders must work collaboratively to ensure that sustainable investing remains a viable and attractive option for RIs. These interventions not only

contribute to a more inclusive and transparent financial ecosystem but also position retail investors as central actors in advancing societal and environmental goals. Future research should continue to explore the impact of macroeconomic factors on ESG investing, investigate the effectiveness of regulatory changes, and examine how evolving social norms influence investor behavior. By understanding and addressing the multifaceted factors that drive ESG investment behaviors, stakeholders can foster a sustainable financial landscape that aligns with both individual values and collective well-being.

7.2 Limitations

Within every research, several limitations must be acknowledged to understand the results correctly. First of all, the research design brings in some limitations. Qualitative interviews can capture attitudes and experiences. Nevertheless, this research approach remains the gap toward actual everyday behavior like an experimental method would do (Nathan & Newman, 2019). Further research should investigate actual triggers about investing or divesting in ESG assets. Followed by this, the intention-behavior gap remains how actual purchase behavior can be predicted by the intention model provided by Ajzen (Sheeran, 2002). This can be translated to the aspect of barriers and challenges mentioned by Investors. Solving the mentioned challenges of their actual investment decision-making process cannot directly translate into increased investing behavior. Especially the presence of social desirability provides a limitation, as individuals might respond in a socially acceptable manner rather than answer truthfully. Thereby, results can be skewed and affect the validity (Getzner & Grabner-Kräuter, 2004).

Moreover, this study is limited according to its scope reasoned by the time constraints. Upcoming studies should broaden the scope of findings to generalize the results to a broader group of individuals. Building up an opinion solely on a few Interviews would be false. According to this, future research should scale up the participants' numbers to find answers which can be translated to a broader group.

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Appendix

Appendix 1: Participant Table

Name	Gender	Age	Education	Saving Rate per month	Startegy	Job description	Y. of experience In investing	Y. of experience related to ESG	Duration
Test_Int_1	F	27	undergraduate	500-1000	Long and short term as well as mixed risk	Insurance	9	3	17 min 36 seconds
RI_1	F	26	postgraduate	500-1000	long term and risk-avers	Sustainability	3	3	30 min 7 seconds
RI_2	M	40	postgraduate	500-1000	Long and short term as well as mixed risk	Manager	25	10	26 min 13 seconds
RI_3	M	41	undergraduate	over 1000	Long and short term as well as mixed risk	Equity Reseach	20	2	36 min 3 seconds
RI_4	F	42	undergraduate	over 1000	Long and short term as well as mixed risk	Energy Sector	15	10	30 min 36 seconds
RI_5	F	27	undergraduate	500-1000	long term and risk-avers	Audit	7	7	41 min and 35 seconds
RI_6	M	41	postgraduate	500-1000	long term and risk-avers	Manager	10	4	28 min 46 seconds
RI_7	M	26	undergraduate	over 1000	long term and risk-avers	SAP Consultant	6	5	32 min 52 seconds
RI_8	M	27	undergraduate	500-1000	long-term and medium risk	IT Project	6	4	40 min 42 seconds
AM_1	M	28	postgraduate	n.a.		Product Manager ESG Products	2	4	34 min 16 seconds
AM_2	F	35	doctoral	500-1000	long Term and medium risk	ESG Investing	8	4	26 min 30 seconds

Appendix 2: Research Guide

Step 1: Approval for recording

Are you fine with recording this Interview? No personal information will be shared. Data will be used anonymously throughout the research.

Step 2: Entrance questions

- Highest level of education
- Job description
- Monthly investment plan (saving rate)
 - 100-500 p. month
 - 500- 1000 p. month
 - Over 1000 p month
- Long-Term or Short-Term investment strategy
- Risk or risk-averse strategy
- Knowledge of Investing vs. ESG
 - Years of experience in Investing (as a retail investor)
 - Year of experience in ESG / Knowledge
- What is your basic understanding of ESG Investing in a private investing context

Step 3 Semi-Structured Questions:

Number	Question	Category Testing	Potential Output Attributes
Q_1	What is your definition of ESG Investing?	Values (AT)	<ul style="list-style-type: none"> • Are there similar patterns about ESG Investing? • Excluding the worst? • Positive Impact (Business Model) • Or doing better than peers?
Q_2	Can you walk me through your information-gathering process before making an (ESG) investment decision?	Information (PBC)	<ul style="list-style-type: none"> • Annual Report • Sustainability Report • Homepage

Q_3	<p>Which values do you personally feel, reflect your consumption behavior?</p> <p>How do your personal values and consumption habits reflect in your investment decisions, particularly when it comes to ESG?</p>	Consumption (AT)	<ul style="list-style-type: none"> • Sustainable-driven • Cost-driven • Mixture depending on the category • Sustainable Consumption enhance sustainable investment decision • Values reflect actual behaviour
Q_4	What motivates you to invest in ESG investments?	Motivation (cognitive AT)	<ul style="list-style-type: none"> • Long-term financial return • Risk driven • Value-driven (psychic return) • Social change
Q_5	How do you balance financial coals and sustainability? And how do you measure success / compare them)	Performance (affective AT)	<ul style="list-style-type: none"> • Prioritization of financial return, ESG, or balance (?) • ESG KPIs (e.g. Scores) • ESG Ratings (for funds and shares like MSCI)
Q_6	How do discussions with family, friends, or advisors influence your investment decisions, particularly around ESG?	SN	<ul style="list-style-type: none"> • ESG is often shared due to peer visibility • Financial wins are more often shared than losses • Financial topics are not often discussed with other people

	Can you share an example?		
Q_7	<p>What challenges/barriers do you face during your ESG investment process?</p> <p>Do you think that's the reason for the massive outflows of ESG funds in Europe?</p> <p>What would you need that barriers were decomposed?</p>	Extension (PBC / AT)	<ul style="list-style-type: none"> • Transparency • Greenwashing scandals • Complexity

Step 4: the End

Thank you very much for your insights and time. Do you think we did not cover any further topic or information that would be relevant to this research?

Appendix 3: Summary

Participant	Key Messages	Conversation flow
RI_1	<ul style="list-style-type: none"> • Exclusion is the main focus • Solely investing in funds • Trust through feelings • Deep sustainable values 	<ul style="list-style-type: none"> • some questions were not directly understood in which direction they were aimed and were explained in more detail
RI_2	<ul style="list-style-type: none"> • For ESG Investments Shares are preferred due to more transparency • Not enough knowledge about sustainable consumption • Would sacrifice return for ESG as long as its positive • US Regulation is less strict 	<ul style="list-style-type: none"> • Very detailed insights about the experience • Further information about US Regulations was given
RI_3	<ul style="list-style-type: none"> • Profits not at any costs (ESG) • Awareness of ESG in companies is missed – impact is needed • Clear quantification also on S and G would make a comparison easier • Portuguese education on investments should start earlier 	<ul style="list-style-type: none"> • Enriched with professional experience • Participant was sick, some questions needed to be repeated
RI_4	<ul style="list-style-type: none"> • No clear ESG definition • Personal Consumption influences investment decisions (e.g. Apple) • Social change – better world • No ESG performance measurement 	<ul style="list-style-type: none"> • Straight flow – no disruptions • No camera was used
RI_5	<ul style="list-style-type: none"> • No trust of ESG Funds due to massive scandals – no solely ESG • Own investment strategy is biased due to the experiences of friends • ESG especially for long-term decisions • Lot of interpretation in the regulatory 	<ul style="list-style-type: none"> • Slower speed of conversation therefore longer duration
RI_6	<ul style="list-style-type: none"> • ESG labels are considered even though no clear knowledge is there • Sustainable values over decades • ESG Ratings were used for the beginning - No track record of ESG Scores • Seeking for one ESG label given by the Government or an NGO to increase trust 	<ul style="list-style-type: none"> • Question about the outflows in Europe needed to be explained with deeper context

RI_7	<ul style="list-style-type: none"> • Divested of ESG funds due to bad performance • Oil and Gas will be just profitable in the short term • Short-term thinking doesn't last long • Emotions lead to ESG Investments 	<ul style="list-style-type: none"> • Straight flow – no disruptions
RI_8	<ul style="list-style-type: none"> • ESG labeled products need a second examination of which titles are included • Theoretical sustainable consumption but practically not always • Influenced by peers to do investments in renewable energy titles • Quantification based on the upcoming CSRD is a wish 	<ul style="list-style-type: none"> • The interview was done in German • Short break due to package delivery
AM_1	<ul style="list-style-type: none"> • Doing better than we do actually • Some Product offerings are missed (ESG Bonds) • Financial Performance is key • RI are often trend-driven 	<ul style="list-style-type: none"> • Easy and interesting depth level • Some German words were used
AM_2	<ul style="list-style-type: none"> • ESG Products are mostly build up on quotes and scores (MSCI or ISS) • People invest more in ESG than they consume or behave • Financial return is top priority • Past performance of ESG funds were great • Exclusion is evaluated all the time 	<ul style="list-style-type: none"> • Straight flow – conversation was done in German language

Appendix 4: Categories

TPB Category	Sub Category	Inductive / deductive	Explanation
AT	ESG Investing Values	deductive	What does ESG Investing mean for each Person. Due to many Definitions about ESG its necessary to understand each definition.
AT	Motivation	deductive	Is the motivation based on financial return, physic return or the belief of social change?
AT	Evaluation_Financial	deductive	When deciding about ESG topic an financial return, what is prioritized
AT	Evaluation_ESG	deductive	How are ESG Funds evaluatet? Solely on their return or do they look for ESG Data as well? If so, which data do they use to evaluate
AT	Evaluation_Enhancer	deductive	Is ESG perceived as a catalyser of financial return in the long run?
Extent _ AT	Pro Social Attitude - Trust	inductive	How do you evaluate trust for a specific website or fund. Exploration where RIs build or lose trust and how they evaluate trust.
Extent _ AT	Pro-Social Attitude - Consumption	inductive	Definition of own values regarding shopping habits like food and clothes.
Extent _ AT	Beliefs align investment behavior	inductive	Does the personal behavior aligns with investing decisions?
Extent _ AT	Con_Attitude_Evaluation	inductive	Reasons why people dont think that ESG funds are the way to go right know
SN	normative behavior	deductive	Is there any process of sharing information or results of investing with your peer group so far?
SN	motivation from others	deductive	Is advice given for your peer group based on your decisions and experience?
PBC	Information	deductive	How does the information gathering process takes place? Are they any specific resources, KPIs that are used?
PBC	Resources	deductive	Which ESG KPIs are considered or which not and why? Do RIs have enough access and knowledge to determine them
PBC	Barriers	deductive	Evaluating the right criteria is yet not set to evaluate an ESG fund correctly, how do they evaluate and do they feel comfortable
Extend_PBC	Additional Information	inductive	What information or data would simplify ESG decisions?
Extend_PBC	Standardization and Transparency	inductive	Standartization of Reporting would increase simplification as well as comparison of each company and fund
Extend_PBC	Education and Knowledge	inductive	Education could increase the knowlegde of importance and increase understanding of information
Extend_PBC	Implications	inductive	What could help you making your decision easier and eliminate your challenges